Anger Displayed by Second Grade Students Who have Experienced Periodic, Planned Role-Playing/Discussion Activities and a Comparable Group of Second Grade Students Who have Not Experienced Periodic, Planned Role-Playing/Discussion Activities

Pamela S. Rogers
ANGER DISPLAYED BY SECOND GRADE STUDENTS WHO HAVE EXPERIENCED PERIODIC, PLANNED ROLE-PLAYING/DISCUSSION ACTIVITIES AND A COMPARABLE GROUP OF SECOND GRADE STUDENTS WHO HAVE NOT EXPERIENCED PERIODIC, PLANNED ROLE-PLAYING/DISCUSSION ACTIVITIES

by

Pamela S. Rogers

Thesis submitted to the Department of Elementary and Secondary Education in partial fulfillment of the requirements for the degree of Master of Education

December 1980

Committee Members:

Dr. Bernadine Bolden
Dr. James Cangelosi
Dr. Paul Eggen
Table of Contents

Chapter I
Problem Statement and Introduction. .................. 1

Chapter II
Review of Related Literature. ......................... 4

Chapter III
Methodology ....................................... 11

Chapter IV
Results and Analysis of Findings ................... 15

Chapter V
Conclusions and Recommendations ................. 16

References ....................................... 20

Appendix: Test .................................. 24
Tables for T-Pool Test. ......................... 37
Chapter I
Introduction

Problem Statement: Is there a difference between how a group of second grade students who have experienced periodic, planned role-playing/discussion activities and a comparable group of second grade students who have not experienced periodic, planned role-playing/discussion activities will display anger when presented with problem situations?

Discipline is consistently a primary concern of teachers and citizens. Since the first educational Gallup poll in 1969, discipline has topped the list of major problems facing the public schools. (Gallup, 1978) Although polls do not set policy or determine direction they do prioritize problem areas and point to needed changes.

Discipline has its roots in the Latin word disciplina, which refers to a branch of teaching and learning; training that develops self-control, character, orderliness and efficiency. (Webster, 1972) Another meaning implies treatment that corrects or punishes. It is probably the latter that most people associate with discipline. The word, "disciple", is closely associated with discipline and refers to the learner or pupil.

Within the text of this paper discipline will be considered to be the process by which people encourage behaviors which are
A progressive theory of good discipline is that good discipline comes from motivating the children on various subject areas to maintain high interest and not on the development of self-discipline and social-responsibility. (Kandel, 1940)

John Dewey (1916) stressed that discipline means self-direction -- being in control not under control -- and that discipline is positive rather than negative.

Tanner (1979) writes: "There are historical reasons why discipline does not occupy a major place in the professional literature. Lack of attention to discipline is a legacy of the progressive education movement. Discipline was not (and still is not) even mentioned in many educational methods books. Discipline is linked with poor methodology and is therefore uninviting, if not unrespectable, pursuit of educational theorists".

The writer believes that there is no theory or method of discipline that works in all instances. But it has been her experience that implementation of a discipline program without pupil input has proven disappointing, largely because self-discipline, as a developmental model has not been approached.

Many studies of discipline state the necessity of self-discipline but few view it as a learning process. (Cleland-Hill, 1972; Cremin, 1973; Piaget, 1932) The author feels that there is a need for study in this area because self-discipline
is not something which children will innately follow and so it has met with difficulty in moving children from the ideal to reality.

If it is the intent of school discipline for children to behave appropriately in society then we must provide opportunities for these children to develop and strengthen their own self-discipline model.
Chapter II

Review of Related Literature

In the 1960's we had just come through a period of lacks competition and policies in society where the situation was to do-your-own-thing. This was reflected in educational theory and practice. At that very time the public was naming discipline as the leading unsolved school problem, the thrust of educational reform was toward releasing the children from "the crushing overload of social controls". (Tanner, 1979)

We are now in a period of reaction to the excesses of that movement. Getting tough with discipline is reflected in the curriculum with the new simplistic back-to-the-basics movement. "Neither a soft line, nor a hard line -- nor a middle of the road approach seems to generate self-direction. A reconstructive approach to discipline seems to be very much in need." (Tanner, 1979)

Today there are more crimes and violence in the society, and the school cannot help but reflect this. Children have more models who are not self-regulating, self-controlled, and responsible. This does not mean, however, that the school cannot help students to deal constructively with their powers.

In the final paragraphs of *Democracy and Education*, (1916) Dewey makes this point. "Discipline, natural development, culture, social efficiency, are moral traits -- marks of a person, who is
a worthy member of the society which it is the business of education to further". And Tanner, (1979), states, "To deny that discipline as a part of education is to surrender the educational cause."

The construct of self-control has been included in diverse theoretical discussions. Those who identify with psychodynamic explanations have argued that self-control "grows out of early sexual urges and developing constraints (i.e. the superego)". (Pressley, 1979) On the other hand, an implication of cognitive developmental explanations of morality is that "self-control increases in children as a function of increasing cognitive sophistication with increasing age". (Lickona, 1976) Still others contend that "self-control can be explained in learning terms". (Rachlen, 1974) Thus self-control has been discussed in person oriented terms (trait theories) and environmentally oriented terms. Although the various theories differ in their explanation of self-control, there is one point of agreement. "Young children do not exhibit the degree of self-control that adults do." (Pressley, 1979) A psychodynamic type would contend that the deficiencies in children's self control is linked to the lack of superego functioning in children. Cognitive developmentalists would probably point to the less than fully developed intelligence operation of children. and learning theorists would probably say that the learning of self-control takes a long period of time. Regardless of which of these
explanations you tend to believe, the fact still remains that most children are often poorly equipped to deal with self-control pressures.

Recently studies in cognitive psychology have been directed at developing self-control techniques in children. In particular they deal with cognitive interventions which affect children's self-control. The concern was in the ways children can manipulate their own cognitions to control their own behaviors, and the ways in which the environment can be manipulated to affect children's cognitions in self-control.

These studies on the effects of cognitive manipulations on children's self-control had a very consistent picture. "Even very young children can manipulate their cognitions when instructed to do so and can have their cognitions manipulated in a number of ways so as to affect their self-control". (Pressley, 1979) However, these studies have shown that all cognition interventions affect self-control behavior. "The cognitive content is the most important because what a child utters determines whether self-verbalizations increase self-control or not". (Pressley, 1979)

In a study done by Park (1969) first and second grade boys were trained not to play with some very desirable toys. When no rationale was provided for not playing with the toys, intense punishment produced more self-control than low punishment. But when a rationale was provided self-control was evident regardless of intensity of punishment. Park, (1977), concluded, "The provision
of a cognitive structure in the form of a verbal rationale increases self-control”.

Self-control training in classrooms has become widespread. Establishing an effective self—rather than externally controlled behavior modification program in schools would enable children to control their own academic and social behavior, while enabling teachers to devote more time to teaching.

Kaufman and O'Leary, 1972, suggest several possibilities for the maintenance of appropriate behavior:

(a) self-administration of contingencies may have become reinforcing;
(b) failure to remain well-behaved might have resulted in a return to teacher ratings, which would be lower than student ratings, thereby resulting in less reinforcement.
(c) academic skills may have developed during teacher determined reinforcement and may have become intrinsically reinforcing; and
(d) students may have been advantageously reinforced for high ratings and low levels of disruption.

Using these self-control procedures, all students tested maintained low levels of disruptive behavior.

Drabman, (1973), suggested several factors that may have also contributed to the maintenance of appropriate behavior:

(a) continuous teacher praise for appropriate student behavior may have become more reinforcing over the course of the study;
(b) peer reinforcement for the appropriate behavior also increased;
(c) accurate self-evaluation was praised by the teacher and may have acquired conditioned reinforcing properties, thereby strengthening appropriate behavior; and
(d) improved academic skills incompatible with inappropriate behavior were developed.
Rosenbaum and Drabman, (1979), in their review and critique of "Self-Control Training in the Classroom" suggested the following conclusions:

(a) Self-control skills can effectively maintain desirable levels of behavior achieved under externally determined contingencies. Relative to baseline, target behavior changes were of significant magnitude to have applied significance.

(b) With disruptive children, an abrupt transfer of control from the teacher to the students may result in high levels of undesirable behavior.

(c) Introduction of a matching criterion, followed by fading of the matching procedures, may produce an effective transfer of control from external agent to the student.

(d) Fading back-up reinforcement may result in desirable behavior being maintained by students themselves after the self-control program has been removed.

(e) Self-controlled reinforcement can initiate and maintain desirable changes in the absence of prior externally determined reinforcement at least with normal children in regular classrooms.

From this review a potentially important method for developing self-control was created through self-instructional training, in which individuals were taught to make suggestions to themselves to guide their own behavior in a manner similar to being guided by another individual. The important role of "talking to oneself" in controlling behavior has been emphasized by several authors. (Meichenbaum, 1975, 1977; Meichenbaum and Cameron, 1974; Skinner, 1953)

Meichenbaum and Goodman, (1971), worked with second graders who had behavior problems such as hyperactivity and poor self-control, and attempted to teach them self-control skills. A cognitive training group received a fading procedure, consisting of
(a) an adult model who performed a task while talking aloud,
(b) the child performed the same task while being directed
by the adult,
(c) the child performed the same task while self-instructing
aloud (overt self-guidance),
(d) the child performed the task while whispering the
instructions (faded - overt self-guidance),
(e) the child performed the task with guidance from private
speech (covert self-instruction).

The results showed that the cognitive training group had
significantly improved performance on psychometric tests designed
to measure behavioral and cognitive impulsivity. No significant
differences were found on two measures of appropriate behavior in
the classroom, thereby bringing into question the applied signifi-
cance of the self-instructional training procedure.

Summary

The mixed results from the studies reviewed indicate that
further research is needed to demonstrate the applied significance
in the effects of self-control training.

Self-control is a therapeutic goal that is advocated by
almost all professionals, regardless of their discipline theories.
The effectiveness of their behavioral change strategies should be
evaluated relative to the production of socially acceptable changes
in behavior. In evaluating classroom research target behavior
changes seem to be the most meaningful regarding the magnitude of
change in socially acceptable, non-disruptive behaviors.

The majority of studies suggest a definite departure from
trying to cure the supposed "ills" of the classroom and in
finding the causes of the phenomena. There is a complex set of academic and behavioral systems trying to work together comfortably for which there is no simple solution.

In almost all of the studies searched, adults asked children to behave in a controlled fashion, and the children agreed to do so. In general, children who were taught a good strategy behaved in a more controlled fashion than subjects who were not provided with a strategy. When uninstructed, they did not possess the skills necessary to fulfill the self-control behavior they knew to be acceptable.

Tanner, (1979). writes, "While much of students' school time is spent in learning situations, all of students' time is spent in social situations. Schools are social environments and a teaching method is often social in character. Much of the school's discipline problems involve appropriate responses in society".

This researcher believes because of the apparent success of target research in affecting behavioral changes it would be beneficial to do further research to observe any significant effects target research may have in the promoting and strengthening of more socially acceptable, nondisruptive manner.
Chapter III

Methodology

Description of Subjects

The sample population used for this study was from two of the five second grade classes at Windy Hill Elementary School in Jacksonville, Florida. Windy Hill School draws students from low to moderate socio-economic areas with the largest proportion of students in the moderate socio-economic level. Approximately 40% of the students came from culturally disadvantaged environments. These students were heterogeneously grouped for self-control activities on how to deal with their anger.

The number of students involved in the treatment group was 27: 15 boys and 12 girls. One student attended a resource class for specific learning disabilities. One student was in an emotionally handicapped resource class. The students in resource classes left the regular classroom for one hour each day for specialized help. Two students were also involved in speech therapy for one hour each week. Five students in the class were in the Title I Reading Program.

The number of students in the control group was 26: 15 boys and 11 girls. Three of the students attended speech therapy for one hour each week and ten of the students were in the Title I Reading Program.
Description of Instrument

Students were given a test at the end of this unit of study. (See Appendix A). The test was designed for this study and measured the levels at which these students dealt with their anger in a socially acceptable, non-disruptive manner.

The test consisted of ten story problems and pictures to go with the stories. It was administered individually to each of the 53 students. The researcher read each story to the student as he/she looked at the matching picture. Then the student was asked what he/she would do in a situation such as this. Their responses were weighted according to four categories, with the most positive attitude being given the highest score. (See Appendix A). The categories ranged from the impulsive child, who responds before examining several alternatives in problems with response uncertainty and who apparently has not learned or is unwilling to exercise control over his first response in the problem solving sphere, to the reflective child who controls or delays his response to consider plausible alternatives.

Procedures

There were two groups of second grade students involved in this study. One group took part in a series of periodic, planned role-playing/discussion activities on how they might deal with their anger. The other group did not experience any such planned activities.
These activities were covered over a three week period during the fall of 1980-81 school year.

A series of fifteen activities were covered. They focused on reflective alternatives to agressive and/or impulsive behavior.

For several of the activities the "Turtle Technique" was employed. The Turtle Technique made use of the analogy of the turtle, which, as we all know withdraws into its shell when it feels threatened. In this same way the child is taught to withdraw into his imaginary shell when he/she feels threatened by uncontrollable emotions or finds himself in a frustrating situation. Essentially the technique involved the following steps:

(a) responding to the cue word "turtle" by pulling arms, legs, and head in close to body;
(b) combining this response with relaxation;
(c) using problem solving techniques by having the children imagine the consequences of the various behaviors they might use for coping with the difficult situation.

(Schneider. 1974)

The other major portion of the activities were role-playing activities that were called "Understanding Choices and Consequences", which were designed to involve the students in dramatizing real-life situations. The major theme emphasized throughout the activities was for the student to understand personal integrity in relationship to group pressures and personal standards.

At the end of the unit the students answered questions on the test and were given a raw score. The mean of the raw scores of the experimental group were compared with the mean of the raw
scores from the control group. A T-pool statistic was used to test the following null hypothesis:

\( H_0: \) The mean of test score of the control group = the mean of the treatment group.
Chapter IV

Results and Analysis of Findings

The test was administered to the 53 second grade students at the end of the fifteen lessons of study. One set of raw scores was obtained from each class: one from the control group and one from the treatment group. These scores were compared with a t-pool test performed by a computer.

The difference between the two sets of scores was 11.823. See Table I. The application of the .05 level to the sample of 53 yields a level of significance at 2.021. The score of 11.823 indicates that there is a significant difference in how the students will display anger when presented with problem situations. The difference favors the periodic, planned role-playing/discussion activities over those who have not experienced such activities. Therefore, the null hypothesis which stated that there is no difference in the mean of the responses to the measure of displayed anger in the control group and the mean of the responses in the treatment group is not supported.
Chapter V
Conclusions and Recommendations

Students' anger displayed when presented with problem situations showed a significant difference at the .05 level based on the results of the t - pool test. The application of the .05 level, using 51 degrees of freedom yields a level of significance at 2.021. The difference of 11.823 between the means of the two sets of scores obtained for this study favored using the periodic, planned role-playing/discussion activities for promoting and strengthening more socially acceptable, nondisruptive behavior.

There are many factors which are believed to have contributed toward this result. The treatment group was observed to develop a more interactive learning environment. More specifically, these lessons provided students with opportunities to:

Understand feelings of anger
Understand anger in others
Understand independence
Understand goals and purposeful behavior
Understand emotional maturity.

This finding is consistent with those of many researchers including Pressley (1979), Park (1969), Kaufman and O'Leary (1972), and Drabman (1973).

When children were exposed to this type of study, it was with the intention of comparing an active developmental training program with a more reactive traditional one. Active developmental intervention was chosen over punishment intervention.
because it had been confirmed in research that active developmental intervention, rather than punishment intervention, makes the real difference in students' behavior. (Park, 1969) Only one study found that with intense punishment self-control could be produced and even then when a rationale was provided self-control was evident regardless of intensity of punishment. (Park, 1977)

There is a growing body of evidence that the early elementary school years significantly influence the educational development of the child. Bloom (1964) summarized a number of longitudional studies and indicated that "Approximately 50 percent of general achievement at grade twelve has been reached by the end of grade three". He likewise underlined the significance of the early school years for the development of the child's attitude toward school and his subsequent achievement pattern.

On a similar note, Kagan and Moss (1962) have emphasized the importance of the primary years for development of child's attitude, values, and involvement with the education process. They found that "many of the behaviors exhibited by the child between six to ten years of age were moderately good predictors of related behavior in early adulthood".

"The child has social and emotional needs which frequently take precedence over his academic needs. These needs must be satisfied first if his time and energies are to be available for academic attainment". (Prescott, 1957)
Since an active development approach has been found to have a more positive effect on students' displayed anger than the reactive traditional approach, it is suggested that room should be made in the curriculum in the primary grades for the direct teaching of socially acceptable, non-disruptive behavior.

Limitations of This Study

The test of displayed anger would be more reliable if some concrete evidence could be found to indicate the truth of their answers. When students' answers on the test were compared with their observable behavior, it appeared that their answers were consistent. But there seemed to be some variability in the consistency of results when their home trained values were in conflict with school trained values.

The questions on the test could be shortened to improve clarity. Some children, with low auditory perception, may have difficulty following stories 9 and 10.

Ad Hoc Analysis

While doing this study it was noticed that students seem to move from impulsive aggressive behavior to more assertive relaxed behavior not only in their display of anger but in their total environment of behaviors which became more responsible, such as doing work assignments, sharing, doing homework, and peer teaching.
There was a notable response made by several male students to completely withdraw and give in when threatened with female aggressive behavior, such as hitting or kicking. There was no effort made to consider plausible alternatives. When questioned about this withdrawal behavior it was related to home-educated practices. This researcher believes because of this unexpected variable some method of home-school communication should be established prior to and during this type of training to come to agreement on what type of response would be more socially acceptable.

Recommendations for Further Study

It would appear that the results of this study indicate the periodic, planned role-playing/discussion activities significantly enhance students' ability to display anger in a socially acceptable non-disruptive manner, but further study is needed. Additional studies could be designed to investigate:

- How long lasting this type of training can be on the effects of displayed anger.
- The effect a longer training period would have on results.
- Isolation of the various variables which affect the potency of various self-control strategies.
- Methods for identifying students for whom self-control is not an appropriate goal.
- Procedures for comparing initial baseline with those from a final return. Only one study has been done in this area. (Robertson, Simon, Pachman and Drabman 1979)
References


Gallup. George. The Tenth Annual Gallup Poll of the Public Attitudes Toward the Public Schools. Phi Delta Kappan 60. September, 1978: 34.


APPENDIX A

Test

and

Tables for T-Pool Test
Test

Four Categories of Anger

1. Very impulsive: fighting, assaulting, bullying, swearing. (1 point)

2. Mildly impulsive: tattling, fights back, takes matters into own hands, unable or unwilling to exercise control over first response. (2 points)

3. Mildly reflective: tries not to be involved, or uncertain in response, does not trust first impression, needs more time. (3 points)

4. Very reflective: controls and delays his response to consider plausible alternatives, shows confidence and maturity in self-control and responsibility. (4 points)

The test was scored only one time per response.
ANGER TEST

1. Jim and Dave were fighting and all the kids were watching. They were punching each other very hard, Jim gave Dave a black eye. What should Dave do?

2. What would you do if you were watching this happen? (Show picture 1 again)

3. You are in line with another friend at the drinking fountain. He starts pushing and pulling to get a drink. The teacher thinks you were pushing too, and reminds both of you to take turns. Your friend stops and listens to the teacher, then starts pushing again. The teacher sees this and makes both of you sit down. What would you do?

4. One day Ed and his two friends have nothing much to do. His friend, Charlie, wants to go and play in the new house they are building down the street. Ed says he can't go because his mother has told him to keep out of half-built buildings. His friends tease him and call him a "scaredy cat" for not wanting to go with them. What would you do if you were Ed?

5. Gordon, age eight, was building a fort. His brother Billy, age four, was building a tower. In Gordon's hand was the block that Billy wanted. Billy ran over to Gordon and grabbed the block. Gordon wouldn't let go. He held on to the block as tightly as he could. Both boys pulled and fell on the floor holding the block. Billy started to cry. The boys' father came in and told them to stop making so much noise. If you were Gordon and had the block first, what would you do?

6. Ellen came over to Jenny's house. She told Jenny her mother had bought her a beautiful dress that cost $100. Jenny said that her dress could not have cost $100. Ellen said that it did so. They argued and argued. Finally Ellen got so mad she walked out and slammed the door. What should Jenny do?

7. Joe and Sally were on the playground. They both saw one empty swing and ran toward it. Joe reached the swing first and grabbed the chain on one side. Sally grabbed the chain on the other side. This will be easy, thought Joe, as he looked at tiny Sally. He gave the swing a quick pull. Sally held on. She started screaming and kicked Joe in the leg. What should Joe do?
8. Kenny and Lisa always played well together. One day after school they were painting over at Kenny's house with his new paint set. Kenny's older sister, Suzie, came in and asked Lisa if she would like to practice some cheers she had learned at cheerleading practice. Lisa wanted to do the cheers more than anything. When she told Kenny, he got very upset and started calling her names. What should Lisa do?

9. Kathy's mom told her to study her spelling words for the test. If she got 100 on the test she could go skating Saturday. When Kathy got her test back Friday afternoon she saw a 100 at the top. She was very happy. Her friend, Stacey, asked to see her paper. When Stacey looked at it she said, "Kathy, your word, number four, is spelled wrong!" When Kathy looked at it she saw that Stacey was right. Stacey called Kathy a "cheater" and said she didn't deserve that 100. All Kathy could see was that her skating would be over if she didn't get 100. What should Kathy do?

10. Mike and Gary were playing football with a bunch of other boys. Just when Mike leaned back to throw the ball Gary tripped and fell down in front of Mike. Then Mike went toppling down over Gary twisting his ankle very badly. Mike said, "Hey, this is touch, not tackle!" Gary tried to explain himself, but Mike would not listen. Mike got to his feet and shoved Gary in the chest. What should Gary do?
Table I

T - Pool Test for Displayed Anger

<table>
<thead>
<tr>
<th>Control Group Students</th>
<th>*X₁</th>
<th>Treatment Group Students</th>
<th>**X₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estanya</td>
<td>31</td>
<td>Kristen</td>
<td>34</td>
</tr>
<tr>
<td>Daniel</td>
<td>25</td>
<td>Eric H.</td>
<td>31</td>
</tr>
<tr>
<td>Jennifer</td>
<td>33</td>
<td>Holly</td>
<td>38</td>
</tr>
<tr>
<td>Christie</td>
<td>23</td>
<td>Dee Dee</td>
<td>37</td>
</tr>
<tr>
<td>Cindy</td>
<td>23</td>
<td>Alex</td>
<td>37</td>
</tr>
<tr>
<td>Trena</td>
<td>22</td>
<td>Tracie</td>
<td>38</td>
</tr>
<tr>
<td>Jason</td>
<td>20</td>
<td>Gina</td>
<td>38</td>
</tr>
<tr>
<td>Cheryl</td>
<td>24</td>
<td>Travis</td>
<td>38</td>
</tr>
<tr>
<td>Ricky</td>
<td>19</td>
<td>Sammie</td>
<td>37</td>
</tr>
<tr>
<td>Mina</td>
<td>20</td>
<td>Nickie</td>
<td>35</td>
</tr>
<tr>
<td>Angel</td>
<td>22</td>
<td>Raquel</td>
<td>40</td>
</tr>
<tr>
<td>Jerry</td>
<td>23</td>
<td>Chris P.</td>
<td>39</td>
</tr>
<tr>
<td>Tommy</td>
<td>25</td>
<td>Robbie</td>
<td>39</td>
</tr>
<tr>
<td>Kenneth</td>
<td>20</td>
<td>Chris B.</td>
<td>39</td>
</tr>
<tr>
<td>Alysia</td>
<td>22</td>
<td>Buggs</td>
<td>34</td>
</tr>
<tr>
<td>Henry</td>
<td>29</td>
<td>Richie</td>
<td>38</td>
</tr>
<tr>
<td>Renae</td>
<td>27</td>
<td>Keith</td>
<td>35</td>
</tr>
<tr>
<td>Timothy</td>
<td>20</td>
<td>Rhonda</td>
<td>32</td>
</tr>
<tr>
<td>Buddy</td>
<td>29</td>
<td>Ebelia</td>
<td>37</td>
</tr>
<tr>
<td>John</td>
<td>22</td>
<td>Eddie</td>
<td>36</td>
</tr>
<tr>
<td>Tina</td>
<td>21</td>
<td>Michelle</td>
<td>29</td>
</tr>
<tr>
<td>William</td>
<td>20</td>
<td>Davy</td>
<td>30</td>
</tr>
<tr>
<td>Jimmy</td>
<td>19</td>
<td>Stevie</td>
<td>37</td>
</tr>
<tr>
<td>Gary</td>
<td>22</td>
<td>Jenny</td>
<td>33</td>
</tr>
<tr>
<td>Joseph</td>
<td>16</td>
<td>Jason</td>
<td>25</td>
</tr>
<tr>
<td>Patrick</td>
<td>18</td>
<td>Eddricka</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eric S.</td>
<td>34</td>
</tr>
<tr>
<td>Means:</td>
<td>22.85</td>
<td>35.63</td>
<td></td>
</tr>
<tr>
<td>S:</td>
<td>4.10</td>
<td>3.74</td>
<td></td>
</tr>
<tr>
<td>T (51, .025)</td>
<td>2.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>11.823</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* *X₁ - total scores for control group

** *X₂ - total scores for treatment group