REGULAR EDUCATION STUDENTS LEVELS' OF EMPATHY AND ADAPTABILITY WITHIN A CLASSROOM WITH DEAF AND HARD OF HEARING PEERS

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To the Graduate Council:

I am submitting herewith a Field Study written by Rebecca N. Quire entitled "Regular Education Students Levels' of Empathy and Adaptability Within a Classroom with Deaf and Hard of Hearing Peers." I have examined the final copy if this Field Study for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Educational Specialist, with a concentration in School Psychology.

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Dean of The Graduate School

REGULAR EDUCATION STUDENTS LEVELS' OF EMPATHY AND ADAPTABILITY WITHIN A CLASSROOM

WITH DEAF AND HARD OF HEARING PEERS

A Field Study

Presented to

the Graduate and Research Council of Austin Peay State University

In Partial Fulfillment

of the requirement for the Degree

Educational Specialist

by

Rebecca N. Quire

February, 1998

STATEMENT OF PERMISSION TO USE

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DEDICATION

This field study is dedicated gratefully
to my husband, Mark. Without his love, support,
and friendship I would have never reached this
milestone in my life.

ACKNOWLEDGMENTS

I would like to thank my Chairperson, Dr. Garland Blair, for all of his assistance and time. It was greatly appreciated. I would also like to thank the other committee members, Dr. Jean Lewis and Dr. Leon Sitter, for always taking time out of their busy schedules to help me. It has been a wonderful learning experience I will never forget. I will remember the kindness and guidance each one of you has given me during the past year. I would also like to thank the Christian County School System and the parents for allowing me to conduct my study. I could not have done it without you.

ABSTRACT

The current study was designed to explore the levels of empathy and adaptability in students who interact with deaf and hard of hearing peers. These levels were compared to students who did not have deaf and hard of hearing peers in their classroom. It was found that there were significantly higher levels of empathy, but not adaptability as measured by the Work Adjustment Inventory created by James Gilliam in 1994 within the classroom environment in students who worked with deaf and hard of hearing peers. The study also found that these students were not more informed about this type of disability as measured by the Deaf Questionnaire developed in 1995 by Dr. Lawrence Hayes.

The subjects for this study were recruited from two middle schools in Christian County, Kentucky. A 6th grade classroom at North Drive Middle School which worked with the deaf and hard of hearing were compared with a 6th grade class at Christian County Middle School. There were no deaf or hard of hearing students at Christian County Middle School. Approximately 20 students from each school were used.

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CHAPTER 1

INTRODUCTION AND REVIEW OF LITERATURE

Hearing loss is the most prevalent physical handicap in the United States. It affects eight percent of the general population. An estimated 21 million Americans have some degree of hearing loss, and of the 21 million over two million are considered deaf. (Freeman, 1989). Since there are so many individuals in the United States that are deaf or hard of hearing one is likely to encounter these individuals some time or another. In order to interact with these persons in an appropriate manner one needs to know the deaf or hard of hearing persons cultural orientation. Dolnick (1993) argues there is Deaf with a capitol "D" and deaf with a small "d". Those who are deaf have an audiological condition, but they live among and associate with the hearing world. Then there is Deaf, which is a person who has a hearing impairment, but he/she associates with the Deaf community. This person most likely uses American Sign Language (ASL), and identifies with the social identity of Deaf culture. The Deaf have their own history, language, attitudes, behaviors, and social identity. For example, the Deaf have different eye contact patterns, rules of physical contact and touching, and the deaf use more facial expressions and gesturing. (Dolnick, 1993) In our

public hearing elementary schools one is most likely 2 to find children who are deaf. Ninety percent of deaf people are born to hearing parents (Schein and Delk, 1974). They do not make the decision to become $\underline{D}eaf$ until they are an adult or attend a residential deaf school. (Bat-Chava, 1993).

Since some children in our public schools may come into contact with a peer who is deaf or hard of hearing it may be beneficial to know how it might affect a regular education student. One may argue that it could be harmful or hinder one's education to have deaf and hard of hearing peers within the same classroom. Others might argue that their presence could have a positive impact. There are many possibilities whether one argues positive or negative influences. It is probable that it could cause a child to be more empathetic and adaptable. This is the focus of the present paper, but one must first define these concepts before attempting to study these aspects. James Gilliam, 1994 defines empathy as " one's perception of one's sensitivity and concern for the well being of others." Gilliam goes on to define adaptability as "people's perceptions of their capacity to deal with change and diversity."

An exhaustive review of Psychlit, ERIC, and the Internet yielded no research studies directly related to the current study of empathy and adaptability in regular education students who are in class with peers who are deaf or hard of hearing. Some studies that can be indirectly linked to the current study include information on attitudes toward individuals with disabilities, impact of inclusion on nondisabled peers, social factors, and empathy in students.

Attitudes

Lampropoulou and Padeliadu's (1996) study included 297 teachers. A total of 110 were regular education teachers, 106 were special education teachers, and 81 were teachers of the deaf and hard of hearing. The study was concerned with describing and comparing the attitudes toward disabilities and inclusion of three distinct groups of teachers. teachers' attitudes were evaluated by the Attitudes Toward Disabled Persons (ATDP). Their attitudes toward inclusion were measured by a Likert-like scale. After the data was collected, Lampropoulou and Padeliadu found that teachers of the deaf and hard of hearing had the most favorable attitudes toward students with disabilities. Surprisingly special education teachers were found to have the least favorable attitudes toward individuals with disabilities.

The authors found this to be directly related to number of 4 years of teaching experience. The more years experience the less favorable the teacher's attitude. In regard to inclusion special education and regular education teachers had neutral attitudes. Teachers of the deaf and hard of hearing had the most negative attitude toward inclusion. A more widely geographic study may give a different view of attitudes, since this study was conducted using the education system in Greece.

Darrow and Johnson (1994) investigated music students' attitudes toward individuals with a disability. Subjects were 699 junior and senior high students who attended a music camp. The researchers evaluated the subjects' attitudes by administering the Disability Factor Scale (DFS) (Siller, Ferguson, Vann, & Holland, 1967), which consists of 69 self-report rating scales. The DFS measured attitudes toward specific disabilities and across disabilities. There were 10 disabilities included on the questionnaire. They included: AIDS, amputation, blindness, cancer, deafness, epilepsy, heart condition, paralysis, physical deformity, and visible scars. The three most accepted disabilities were: visible scars, heart condition, and deafness. The researchers found that females and high school students were overall more accepting of

disabilities than males and junior high school students. A 5 limitation of the study appeared to be the survey instrument did not attempt to probe why a subject found a person with a particular disability more or less acceptable.

Academic Performance

Sharpe, York, and Knight (1994) compared the academic performance of 35 general education students educated in an inclusive environment with 108 general education students who did not have any special education peers in their classroom. The researchers used a pretest-posttest design to examine performance differences between the inclusion group and the comparison group. The results showed no statistically significant differences between the two groups in the areas of reading, language arts, and mathematics. This study indicated there was no decline in academic performance of the students in an inclusive environment.

Cushing and Kennedy (1997) examined the effects of peer support on nondisabled students who served as peer tutors for students with disabilities. The students with disabilities had moderate to severe intellectual deficits. The results demonstrated that the nondisabled peer stayed academically engaged longer when he/she was serving as a peer tutor than when he/she was working alone. The peer

supports also completed and turned in more of their homework assignments. Overall, serving as a peer support resulted in positive academic benefits for the nondisabled peer. Social Acceptance

In this study by Coyner (1993) she attempted to identify factors that may contribute to social competence. The research sample consisted of 25 hearing, five hard of hearing, and five deaf students who ranged in age from 13-17. The study found that hard of hearing and deaf students were more accepted by peers with the same hearing status. Also deaf and hard of hearing males were rated with the lowest social acceptance. It was found that deaf and hard of hearing peers received the lowest social acceptance from their hearing counterparts. Lastly the study showed that there was a strong relationship between academic success of deaf and hard of hearing students and the acceptance rating they received from their hearing peers. The higher the social acceptance the better his/her academic success.

Social interaction

Hunt and Goetz (1997) also found that inclusive educational settings promoted communicative and social interactions between the disabled student and their nondisabled peer. The student with a disability had higher levels of social contact, received higher levels of social support, and had larger networks of friends. However, the researchers found that the majority of the interactions were initiated by the peers without disabilities and were assistive in nature. The review focuses on more severe and pronounced disabilities.

Ochoa and Olivarez (1995) conducted a meta-analysis of peer rating sociometric research on students with learning disabilities (LD). The studies included in this review were those which compared peer acceptance/status between pupils with LD and nondisabled pupils via the use of the peer rating sociometric technique. All studies reviewed, except one, yielded negative effect sizes indicating that pupils with LD were rated unfavorably by their peers. Students with learning disabilities were found to have lower sociometric status than their peers without disabilities.

Social Adjustment

Musselman, Mootilal, and Mackay (1996) studied social adjustment in deaf adolescents in various educational settings. They found that deaf students in a segregated educational environment have poorer English skills, but more proficient American Sign Language skills than deaf students who were in partial integrated and mainstreamed educational settings. The researchers went on and found that deaf

students in mainstreamed classes reported equal social adjustment with deaf and hearing peers. Where as deaf students in segregated and partially integrated settings reported higher levels of social adjustment with their deaf peers than with hearing peers.

Empathy

Davis and Franzoi (1991) investigated the stability and change in self-awareness and empathy in adolescence. The instrument they used to measure empathy, the Interpersonal Reactivity Index, defined it as "the tendency to be aware of and react to the mental or emotional states of other people". The researchers expected increases in empathy and decreases in self-awareness over time. Their participants were 205 high school students. They found a correlation that empathetic traits increase over time. Females generally scored higher on all empathy scales. The study did not reveal any changes in self-awareness. However, the study did find that for all subjects empathetic concern increased over time and personal distress declined. The students became more aware/concerned with others and less focused on themselves.

Janus and Goldberg (1995) investigated the relationship between a healthy sibling's empathy toward his/her sibling with chronic heart disease. The study also examined

behaviors as reported by their mothers. The study contained 28 sibling pairs. The researchers did not find any differences with level of empathy and behavior problems of the siblings. The children that expressed high levels of empathy were viewed by their disabled sibling as more positive in their relationship. It was interesting to note that mothers judged siblings with high empathy as more resentful toward their chronic heart diseased sibling. Purpose of Study

The research reviewed revealed a relationship between teachers' and students' attitudes toward students with disabilities. Students with disabilities do not have a negative academic influence on student performance. The research described social relationships found between regular education and special education students. However, no research studies were found which directly covered the identical issues in the current study.

It appeared that there were many factors that affected a teacher's attitude toward students with disabilities. included type of teacher, years experience, and amount of training (Lampropoulou and Padeliadu, 1996). When regular education music students' attitudes were examined the biggest factor that impacted their attitudes was type of disability (Darrow and Johnson, 1994). No matter the

disability it did not seem to have an impact on student academic performance. In one study it showed that both the nondisabled and disabled peer performed the same whether they were in the same classroom or not (Sharpe, York, and Knight, 1994). However, when special education students were in a regular education classroom it was found that the nondisabled peer was the one to initiate the social interactions, and it was usually assistive in nature (Hunt and Goetz, 1997). Another study also demonstrated that when a nondisabled peer served as a peer tutor to a student with a disability his/her academic performance improved (Cushing and Kennedy, 1997).

Other studies examined revealed that deaf and hard of hearing students are less accepted by their hearing peers. This level of acceptance does increase if the deaf or hard of hearing student is viewed by his/her hearing peers as academically successful (Coyner, 1993). Students with other disabilities, such as Learning disabilities, are also viewed more unfavorably by their peers (Ochoa and Olivarez, 1995). However, a study by Musselman, Mootilal, and Mackay, 1996 stated that deaf adolescents who are mainstreamed have higher levels of social adjustment toward both their deaf and hearing peers. Lastly students' levels of empathy were found to increase with age (Davis and Franzoi, 1991). Also

siblings who have a disabled peers are not always empathetic. The siblings with more positive relationships expressed the highest levels of empathy toward their sibling with chronic heart disease (Janus and Goldberg, 1995).

The current study will evaluate students who are in a regular classroom setting and try to determine if there is a significant difference in the levels of empathy and adaptability with the classroom environment between subjects who are in contact with the deaf and hard of hearing, and those who have no interaction with students who are deaf or hard of hearing.

The purpose of the current study is to explore the relationship between a middle school $6^{\rm th}$ grade classroom who have deaf and hard of hearing students with a $6^{\rm th}$ grade classroom who do not have contact with deaf and hard of hearing peers.

The hypotheses of the study were:

a) The class with deaf and hard of hearing students will be significantly more informed about the disability than the class with no deaf and hard of hearing students. b) The integrated class will have significantly higher levels of empathy within the classroom environment, as measured by the WAI, than the class with no deaf and hard of hearing students. c) The integrated class will have significantly

higher levels of adaptability within the classroom environment, as measured by the WAI, than the class with no deaf and hard of hearing students.

CHAPTER 2

METHODS

Design

The current study used a 2x2 comparative design to compare subjects who interacted with deaf and hard of hearing students with subjects who had no contact with the deaf and hard of hearing in the areas of empathy and adaptability within the classroom environment.

<u>Participants</u>

Participants for the current study were recruited from two middle schools. The first group consisted of a 6th grade class who interacted daily with deaf and hard of hearing students. These participants were recruited from North Drive Middle school in Christian County, Ky. The second group was a 6th grade class who did not have any contact with deaf or hard of hearing students. These participants were recruited from Christian County Middle school in Christian County, Ky.

Definition of Terms

Deaf and Hard of Hearing Students:

Students who have been identified by Kentucky's standards for children with disabilities, this disability being labeled "Hearing Impaired". All of these students are eligible to receive special education services in the state of Kentucky based on their degree of hearing loss. The

hearing loss must be greater than 25 decibels in both ears. No Contact:

All middle school deaf and hard of hearing students in Christian County attend North Drive Middle school, therefore no students at Christian County Middle school ever get the opportunity to interact with students who are deaf or hard of hearing.

Integrated Class:

A regular education $6^{\rm th}$ grade class that has daily instruction with children who are deaf and hard of hearing.

Materials

A deaf and hard of hearing questionnaire

(Appendix A) was administered to every participant in the study. This brief questionnaire asked information regarding several aspects on deafness and hard of hearing. The questions included five yes/no, four true/false, and one short answer.

The WAI (Appendix B) was employed to measure levels of empathy and adaptability within the classroom environment. The inventory was comprised of 80 questions. The subjects were requested to rate how they relate to each question. The scoring criteria are as follows: 1=almost never; 2= seldom; 3= sometimes; 4= usually; 5= almost always. The WAI

has an internal consistency of .93 for females and .94 for 15 males. The test -retest reliability is .80 (Gilliam, 1994). The WAI was standardized on over 7,000 students, 10 percent of the students had some type of disability. Procedure

Participants and their parents were informed about the purpose of the study on their informed consent and assent forms. They were also told that they had the right to refuse to answer any of the questions or discontinue their participation in the study at any time. Participants' parents were asked to sign an informed consent statement prior to receiving the questionnaire and inventory. The students were also asked to sign an assent form. The questionnaire and inventory were passed out in group sessions to be filled out independently by each participant. To ensure confidentiality, informed consent and assent forms, questionnaires, and inventories were kept separated at all times.

The participants were divided into two groups after the collection of the data. The first group were participants who interacted with their deaf and hard of hearing peers, and the second group were participants who did not have any contact with deaf and hard of hearing

students. To determine how informed each group was about the disability of deafness and hard of hearing the percentage of questions correct on the deaf and hard of hearing questionnaire were used. The percentages for each group were averaged to obtain a mean score for each group.

To determine if participants in the integrated class had higher levels of empathy and adaptability within the classroom environment a two way analysis of variance was conducted. At test was also conducted to analyze these data.

CHAPTER 3

Results

The primary finding of the data analyses indicated a main effect for empathy but not adaptability. A two way analysis of variance revealed that empathy was significant in the treatment group. Adaptability was not found to be significant, but the treatment group was found to be more adaptable than the group who did not interact with peers who are hard of hearing or deaf. The second significant result was that females were overall more adaptable than males.

Gender was not found to be significant for empathy. There were no interaction effects of treatment by gender (Table 1).

A second analysis of the data using a two-sample t test supported the 2 way analysis of variance findings. The t test found empathy to be significantly higher in the group of students who work with peers who are deaf or hard of hearing. Also it found adaptability to be higher in the treatment group, but not significantly higher (Table 2).

In regards to the Deaf Questionnaire the class that had no deaf and hard of hearing peers had a mean of 2.7 questions answered incorrectly. Surprisingly the class with deaf and hard of hearing students had a mean of 3.7 questions answered incorrectly.

Table 1
Two Way Analysis of Variance

Treatment	Sum of Squares	Mean Squares	<u>F</u>	P
Empathy	73.39	73.93	12.07	0.001
Adaptability	32.95	32.95	3.24	0.081

Gender	Sum of Squares	Mean Squares	<u>F</u>	<u>P</u>
Empathy	0.00	0.00	0.00	0.997
Adaptabil	ity 76.39	76.39	7.52	0.010

Treatment*Gender	Sum of Squares	Mean Squares	<u>F</u> <u>P</u>
Empathy	8.02	8.02	1.32 0.259
Adaptability	8.80	8.80	0.87 0.359

Table 2

Two-sample t test on Empathy grouped by Treatment

Group	Й	Mean	SD	
No deaf With deaf	20 16	9.250 12.250	2.245 2.671	
Probability=	0.001	(p<.01)		

Two-sample t test on Adaptability grouped by Treatment

Group	N	Mean	SD	
No deaf With deaf	20 16	9.850 11.938	3.281 3.660	
Probability=	0.085	(p<.01)		

CHAPTER 4

DISCUSSION

The present study supports the experimenter's hypothesis that regular education students who are in class with deaf and hard of hearing peers have higher levels of empathy compared to students who are not in an integrated classroom. These same students are also more adaptable, even though it is not significant. This leads one to conclude that being in an integrated classroom with deaf and hard of hearing students may cause hearing students to become more empathetic and an adaptable individual. This is a very beneficial reason for schools to continue integrating deaf and hard of hearing peers into the regular classroom. Although it is surprising to see that the class with no deaf and hard of hearing peers seemed to be more knowledgeable about the disability.

It would be interesting to see if these same positive effects are similar for the deaf and hard of hearing students. If so it would be beneficial for all students. Future research may also want to examine different disabilities to see if they would have the same effect as this study, or would the results vary depending on the type of disability integrated. There are some limitations in the current study that future research may be able to control.

One of the limitations of the current study includes the geographical location of the study. The sample was completely recruited from a small town in the Southern United States, and was restricted to two schools due to the low rates of deaf and hard of hearing students in the area.

The small number of participants is another potential limitation. This was due to the relatively low number of deaf and hard of hearing students in the Christian County student population. Since there is such a low number, few regular education students got the opportunity to interact with these children on a daily basis.

A third possible limitation is that The Work Adjustment Inventory has not been used in any other studies. However, on the standardization sample of 7,000 subjects it was found to be reliable and valid.

Lastly the use of self-report measures is also seen as a potential limitation in the current study. Levels of empathy and adaptability within the classroom environment are subjective experiences and therefore are highly impacted by participants' biases. However, all subjects should be equally affected. Students may also "fake good" or "fake bad" which is another possible limitation.

These limitations may be overcome if one has more time,

money, and participants to invest. It would be interesting to see the results of this same study on a much larger scale using various geographic locations.

The last significant result which is not directly related to any of the hypotheses of this study was that overall females were more adaptable than males. One may explain this by saying girls may be more verbal and since they express difficulties they may experience with change, they adapt more quickly than males. Further research is needed in this area to make any firm conclusions.

Overall this field study is a success. It demonstrated that students are, or become more empathetic and adaptable in a classroom in which they work with students who are deaf and hard of hearing. It is a beneficial experience that educators can use to help empower their students. Also it may help to extinguish any fears that a teacher may have about having deaf and hard of hearing students in his/her classroom.

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APPENDIXES

CONFIDENTIAL

PARENTAL CONSENT FORM

I am conducting a study on the affects of deaf and hard of hearing students interactions' with their hearing peers. To examine these affects I would like to give your child the Work Adjustment Inventory and the Deaf and Hard of Hearing Questionnaire. The inventory consists of 80 questions which are related to the students' levels of adaptability, empathy, and work environment. The questionnaire is made up of 10 questions about individuals who are deaf or hard of hearing. Both tasks will take approximately 20 minutes to complete. The students will fill these items out in their classroom in a group setting. Your child will not put his/her name on either inventory or questionnaire. Your child's identity will remain anonymous. Only the child's gender and age will be on the tasks.

If you agree to let your child take part of this learning opportunity, please circle "yes" and sign below. If you do not want your child to participate, circle "no" and sign below. If your child chooses they can withdraw from the study at any time. They can also choose not to answer one or more of the questions. Their participation is totally voluntary.

I will supply your child's classroom teacher with a finished copy of the study if you would like to see the results of the study. Thank you for your time and consideration.

	NO	
date	signature	date
	date	

Sincerely,

Rebecca Quire, MS Provisional School Psychologist

APPENDIX B

CONFIDENTIAL

STUDENT ASSENT FORM

I am doing a study on students who work with deaf and hard of hearing peers. To look at the influences of these students I would like to give you the Work Adjustment Inventory and the Deaf and Hard of Hearing Questionnaire. The first one has 80 questions about your levels' of adaptability and empathy in the classroom.

The second questionnaire is made up of 10 questions about people who are deaf or hard of hearing. Both tasks will take about 20 minutes to answer. You will fill these items out in your classroom with all your classmates. Your name will not go on either the inventory or questionnaire. Your identity will remain unknown. Only your gender and age will be on the tasks.

If you agree to take part in this learning opportunity, please circle "yes" and sign below. If you do not want to participate, circle "no" and sign below. You can choose not to answer any individual question, or you can choose to withdraw from the study at any time. Your participation in this study is totally voluntary.

YES		NO	
signature	date	signature	date

Thank you for your time and consideration.

APPENDIX C

DEAF AND HARD OF HEARING QUESTIONNAIRE

- 1. Do you know anyone who is deaf or hard of hearing? Yes or No
- 2. Is there a college just for deaf students?
 Yes or No
- There is only one form of sign language world wide.
 True or False
- 4. Most deaf or hard of hearing people have deaf parents?
 True of False
- 5. Do deaf people have the ability to talk? Yes or No
- 6. Does a hearing aid correct a person's hearing as precise as glasses correct vision?

 Yes or No
- 7. What does Closed Caption mean?
- 8. Are most deaf and hard of hearing individuals able to care for themselves as adults? Ex. Live own their own, drive, work.

 Yes or No
- 9. All deaf people can read lips? True or False
- 10. Deaf and hard of hearing people are dumb?
 True or False

Score

Mile

Rank

WAI Quotient

Work Adjustment Inventory RESPONSE RECORD FORM

Section II. WAI Results

Raw

Score

Scale

Activity Empathy Sociability **Assertiveness** Adaptability Emotionality

DIX I	31
	Section II Identifying Information
Name_	
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Section VI. Survey

Instructions: This is a survey about how people see themselves. Read each statement carefully. Circle the number that best describes you. Be sure to mark each item. If you are not sure, use your first thought. There are no right or wrong answers, so please be honest.

I am sensitive to other people's feelings. I enjoy working. I enjoy working. I get upset when my feelings are hurt. I like dealing with the unexpected. I like dealing with the unexpected. I say what I feel about things. I the bigs neat and orderly. I can make people laugh. I try to get people to do what I want. I may a warm-hearted person. I like to work steadily and be busy most of the time. People bother me when they say things about me. I am venturesome and like to do different things. I have a good sense of humor. I like to tell people what to do. I like to tell people what to do. I like to be busy. I get angry when things go wrong. I get angry when things go are and like to dare. I get angry when things go wrong.	•	
am sensitive to other people's feelings.	•	Scale 5 Scale 6 Scale 6 Scale 6 Scale 6 Scale 8 Scale 8 Scale 8
Perior working Perior work Perior	I am sensitive to other people's feelings.	1: 2: 3: 4 5
Like dealing with the unexpected.	I enjoy working.	
Like things neat and orderly.	. I get upset when my feelings are hurt.	
Like things neat and orderly.	. I like dealing with the unexpected.	1 2 3 4 5
1	I say what I feel about things.	12 3 4 _5
1 try to get people to do what I want.		1 2 · 3 4 5
Ilike to work steadily and be busy most of the time. 2 3 4 5	I. I try to get people to do what I want.	1 2 3 4 5
People bother me when they say things about me. 2	I am a warm-hearted person. I like to work steadily and be busy most of the time.	z z
I am venturesome and like to do different things	 People bother me when they say things about me. 	1 2 3 4 5
1. I like to tell people what to do. 5. I am involved with and concerned about others. 1	2. I am venturesome and like to do different things.	1 2 3 4 5
5. I am involved with and concerned about others. 6. I like to be busy. 7. I get angry when things go wrong. 8. I enjoy a challenge or dare. 9. I show how I am feeling. 10. I have realistic expectations about work. 11. I can handle a job with noise. 12. I like to give advice. 13. I am concerned about the well-being of others. 14. Working is important to me. 15. People say things that bother me. 16. I like to be busy. 17. I get angry when things go wrong. 18. I enjoy a challenge or dare. 19. I show how I am feeling. 10. I a d d d d d d d d d d d d d d d d d d	·	1 -2 3 4 5
1 Z 3 4 5 7. I get angry when things go wrong. 1 Z 3 4 5 8. I enjoy a challenge or dare. 1 Z 3 4 5 9. I show how I am feeling. 20. I have realistic expectations about work. 21. I can handle a job with noise. 22. I like to give advice. 23. I am concerned about the well-being of others. 24. Working is important to me. 25. People say things that bother me. 26. I like a change in the daily routine. 27. I will say what I think.	I am involved with and concerned about others.	' - '
7. I get angry when things go wrong. 8. I enjoy a challenge or dare. 9. I show how I am feeling. 10. I have realistic expectations about work. 11. I can handle a job with noise. 12. I like to give advice. 13. I am concerned about the well-being of others. 14. Working is important to me. 15. People say things that bother me. 16. I like a change in the daily routine. 17. I will say what I think.	6. I like to be busy.	7 3 4 5
9. I show how I am feeling. 20. I have realistic expectations about work. 1	17. I get angry when things go wrong.	
20. I have realistic expectations about work. 1 Z 3 4 5 21. I can handle a job with noise. 1 Z 3 4 5 22. I like to give advice. 1 Z 3 4 5 23. I am concerned about the well-being of others. 24. Working is important to me. 25. People say things that bother me. 26. I like a change in the daily routine. 27. I will say what I think.	18. I enjoy a challenge or dare.	1 2 3 4 5
21. I can handle a job with noise. 1	19. I show how I am feeling.	1 2 3 4 5 -
21. I can handle a job with noise. 1	20. I have realistic expectations about work.	1 Z 3 4 5
22. I like to give advice. 23. I am concerned about the well-being of others. 24. Working is important to me. 25. People say things that bother me. 26. I like a change in the daily routine. 27. I will say what I think. 28. I like to give advice. 1		1 2 3 4 5
23. I am concerned about the well-being of others. 1	22 I like to give advice.	1 2 3 4 5
24. Working is important to me. 1. Z 3 4 5 25. People say things that bother me. 1. Z 3 4 5 26. I like a change in the daily routine. 1. Z 3 4 5 27. I will say what I think. 1. Z 3 4 5	23. I am concerned about the well-being of others.	1 2 3 4 5
25. People say things that bother me. 1	24. Working is important to me.	1: 2 3 4 5
26. I like a change in the daily routine. 1 2 3 4 5 27. I will say what I think.	25. People say things that bother me.	4.5
27. I will say what I think.	26. I like a change in the daily routine.	1 2 3 4 5
28. I think about things before I act.	27. I will say what I think.	
	28. I think about things before I act.	

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	Solon Asharings (Solon)	4'nosi 44403	Scale 1 Scale 2	
30. I like to give advice to others.	1 2 3 4	* And	S	Scale Scale
31. I get along with people.		5	-	
32. I like to be busy at work.	1 2 3 4	5		
33. I cry when my feelings are hurt.	1 2 3 4	5	-	
34. I adapt easily to change.	2 3 4	5		
35. I tell people what I need or want.	1 2 3 4	5		
36. I choose jobs that I am qualified for and can do.	1 2 3 4	5		-
37. I can stay calm when I'm rushed.		5	-	
38. I like positions of responsibility.	1 2 3 4	2	-	
39. I am easy to get along with.	1 2 3 4		-	
40. I can be counted on to do my work.	1 Z 3 4	5	-	-
41. I am concerned about what people think about me.	1 2 3 4	5	-	
42. I have a lot of energy.	1 2 3 4			-
43. I will tell people if they make a mistake.	1 2 3 4	5	-	-
the same to be a second or an arrangement of the same	, t Z 3, 4	5		
44. I am alert to possible dangers in my workplace.	1 2 3 4	5	-	
45. I think about how I am feeling.	1 2 3 4	5		
46. I like to be told how I'm doing.	1 2 3 4	5 🥠	-	-
47. I like to lead rather than follow.	1 2 3 4	5		-
48. I am polite and respectful to others.	1 2 3 4	5	-	
49. I like to finish jobs once I start them.	1 2 3 4	5	-	
50. I want things that others have.	1 2 3 4	5		
51. I am a healthy and active person.	1 2 3 4	5	-	-
52. When I hurt, I want people to show concern.	1 2 3 4	5		-
53. I am compliant and do what I am told.	1 2 3 4	5	_	
54. I like to work with a lot of different people.	1 2 3 4	5		-
55. I have an easygoing temperament.	1 2 3 4	5	-	-
56. I like to learn while I am working.	1 2 3 4	5	-	
57. I get embarrassed.	1 2 3 4	5		
58. I am a curious person.	1 2 3 4	5		
59. I will stand up for myself.	1 2 3 4	5		-
60. I work at a good pace.	1 2 3 4	5	-	
61. I have a good memory for names.	1 2 3 4	5		_
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Page 2 Totals

			No			2						
		Almos A	S. A.	Something of the second	Amos,	ZA	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	Scale 6
62. Most jokes make me laugh.		4	28	8	2 × 1		Ŋ	Ŋ	Ŋ	S	S	SS
63. I like to be the leader.	j.		2	3 4	5				-		7	-
64. I am a generous person.		!	2	3 4		-	-			_		
65. I like to do things neatly and carefully.			2	3 4	5			_				
66. I am a moody person.			2	3 4	5		-					
67. I am an outgoing person.		,	2		, 5	-				. ,		-
68. I am a predictable person.			2	3	45		:			-		
69. I like to correct my own mistakes.		1	,	3 4				_				
70. I can handle a job with stress.	· •	1	~	3 4	5		-		-		-~	4
71. I like to be involved in making decisions.		1	2	T. 4			_		**		2	1
72. I understand other people's problems.		1	2	3 4	5							. 4
73. I like to learn and do many different job tasks.		1	2	3 4	5			_				
74. I am easily excited.		t	2	3 4	::5		-		-		-	
75. I can fit into new situations.		1	2	3 4	5			_	_		7	-
76. I am aware of what's going on around me.		1	2	3 4	5				_	_	_	
 I like to know what is going to happen from one day to the next. 		1	2	3 4	5							_
78. I like to start off on my own and keep going.	***	1	2	3 4	5				_		1	
79. I don't mind being told what to do.		1	2	3 4	5		_					3
80. I like to participate in activities.		1	2	3 4	5				_	_	•	

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•	Page 1 Page 2 Page 3 Total
Activity Scale 1	+ + + + + + + + + + + + + + + + + + + +
Empathy Scale 2	+ + + - +
Sociability Scale 3	+ + + =
Assertiveness Scale 4	+ - + -
Adaptability Scale 5	+ + + =

Page 3 Totals