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AUTHOR Burrell, Lewis P.  
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## ABSTRACT

A study examined possible differences between the empathy levels of vocational and academic teachers toward students. The Hogan Empathy Scale was sent to 196 high school teachers from local school districts in the metropolitan Northeast Ohio region. A total of 123 (63%) voluntarily completed it. The responses of the vocational teachers were compared to those of the academic teachers. The academic teachers were found to have a significantly higher mean empathy level (23.62 versus 20.43 for the vocational teachers). A gender analysis of the results revealed that females had a higher mean empathy level than males (23.16 versus 20.08). Age, race, level of education, and level of experience were not found to have any statistically significant effect on empathy level. Included among the study recommendations were calls for more cooperation between vocational and academic teachers to define common teaching goals and objectives and for development of a process to determine which applicants from business and industry have greater empathy for the students they will teach. (Appended are a definition of empathy, data on the importance of individual teacher traits in keeping at-risk students in school, and comparative empathy levels of males and females.) Contains 14 references. (MN)

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# A Paradigm On Student Empathy, Vocational Versus Academic

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Lewis P. Burrell, Ed.D.

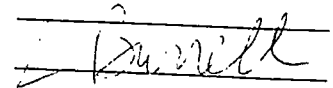
Kent State University  
300 White Hall  
Kent, Ohio 44242  
(216) 672-2656

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## **ABSTRACT**

### **A PARADIGM ON STUDENT EMPATHY, VOCATIONAL VERSUS ACADEMIC**

A study was conducted to explore possible differences in the empathy levels of Vocational and Academic teachers. A total of 123 high school teachers voluntarily completed the Hogan Empathy Scale, which is a sub-test of the California Psychological Inventory. Significant differences in empathy levels were found to exist between Vocational and Academic teachers ( $p < .001$ ) and between Male and Female teachers ( $p < .001$ ). Factors that proved not to be significant were: Age, Race, Level of Education, and Years Taught. The study dealt solely with the identification of the empathy levels of the teachers; it did not address the impact of teacher empathy on the facilitation of student progress and learning. Future studies may want to address these issues and others, including any possible linkages between teacher empathy and the drop-out rates of at-risk student populations. Since the number of special needs students in vocational education classes nationally is near 33 percent, the implications and proposals for further research included with this project should be considered.

## **PROPOSAL**

**TITLE:** A Paradigm on Student Empathy, Vocational Versus Academic.

**PURPOSE AND OBJECTIVES:** The purpose of this study was to compare the empathy levels of vocational and academic teachers who work with high at-risk student populations.

The objectives of the study were defined as follows:

1. To determine whether any differences exist in the empathy levels of vocational and academic teachers.
2. To determine whether teacher empathy levels vary by demographic factors including gender, race, age, teaching experience and level of education.

### **RESEARCH METHODOLOGY:**

#### **SAMPLE**

A total of 123 subjects participated in the study (N=123) on a voluntary basis. Four teacher groups were selected for the research study; three were from local school districts located in the metropolitan Northeast Ohio region and a fourth group was a group of high school teachers across Northeast Ohio who attended a special needs in-service training seminar. The sample consisted of two subject types by job title: vocational teachers and academic teachers.

#### **PROCEDURE**

In order to examine teacher empathy levels the subjects were asked to complete the Hogan Empathy Scale, a sub-scale of exact questions from the California Psychological Inventory. A total of 196 survey instruments were distributed to the four school

groups with an open invitation for participation on a voluntary basis. The response rate for this sample was 63 percent. The sample appears to represent the target population, to which the results of these analyses can be generalized.

#### INSTRUMENT

The Hogan Empathy Scale consisted of 38 true or false questions that were extracted from the California Psychological Inventory which has demonstrated a high reliability and validity. Six demographic questions were added to the instrument. Levels of empathy on the Hogan Empathy Scale can range from zero to 38. To control a response bias, teachers were guaranteed anonymity.

#### **RESULTS:**

The frequency distribution consisted of the following: by Gender -- 71 males, 50 females (2 missing); by Teaching Area -- 81 vocational teachers, and 37 academic (7 missing); by Age -- 13 under age 30, 35 age 30-to-40, 49 age 41-to-50, and 24 over 50 (4 missing); by Level of Education -- 37 non-degree, 42 bachelor's degree, 14 master's degree, 25 over the master's (7 missing); by Race -- 5 non-white, 116 white (4 missing); by years taught -- 47 under 5 years, 23 five-to-15 years, and 52 over 16 years (3 missing).

Significant differences were found to exist in empathy levels of teachers by Gender ( $p < .001$ ) and by Teaching Area ( $p < .001$ ). Areas which proved not to be significant were: Age, Race, Level of Education, and Number of Years Taught.

**\*Mean Scores And t-Test Results From The Hogan Empathy Scale**

**By Teaching Area:**

<u>Academic</u>	<u>Vocational</u>	<u>Level of</u>
<u>Mean</u>	<u>Mean</u>	<u>Significance</u>
23.62	20.43	p<.001

**By Gender:**

<u>Male</u>	<u>Female</u>	<u>Level of</u>
<u>Mean</u>	<u>Mean</u>	<u>Significance</u>
20.08	23.16	p<.001

\*t-Tests were used to determine significant differences since only two factors were involved in the above demographic analysis.

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**CONCLUSIONS:**

A significant difference exists between vocational and academic teachers with respect to empathy. The academic teachers of this study were more empathetic than the vocational teachers. A significant difference in empathy also exists between male and female teachers with female teachers scoring higher on the Hogan Empathy Scale than males. In this study, no differences in empathy were found by age, race, level of education, or level of experience.

This research dealt solely with the identification of empathy levels of teachers. Nothing in this research addressed the impact of teacher empathy on the facilitation of student performances and learning outcomes.

### **IMPLICATIONS:**

1. More efforts at cooperation need to be pursued between the vocational and the academic teaching staff in order to more closely define common goals and objectives for teaching today's youth.
2. A process may need to be devised to enable school districts to determine, in the selection process, which applicants from business and industry have a greater empathy for the students they are about to teach.
3. The significant differences in the two teacher groups will require further research to determine whether the difference in empathy levels has an effect on teaching performance outcomes. The review of the literature would tend to favor a link between empathy and the degree of learning.

### **FURTHER RESEARCH:**

The research findings above could lead to further investigations as follows:

#### Effects on Student Performance

1. This research dealt solely with the identification of the empathy levels of two groups of teachers. Nothing in this research addressed the impact of teacher empathy on the facilitation of student performance.

#### Effects on Dropout Rates

2. It may be possible to determine whether a relationship exists between the empathy levels of teachers and drop out rates across schools.

### Student Perceptions of Teacher Empathy versus Measured

3. Comparisons could be made as to student perceptions about teacher empathy to actual teacher empathy levels. This would provide an added dimension to teacher evaluations and program planning.

### Changes of Teacher Empathy after Pertinent Training

4. Comparisons of empathy levels of teachers could be made between teacher groups who have undergone extensive training programs in identifying teaching/learning needs of students to those groups who have had no such training.

### Affects of Teacher Empathy on Student Learning

5. Studies need to be conducted to determine whether or not student learning is affected by the level of empathy displayed by a teacher.

### **APPENDIX MATERIALS:**

The appendix materials lend support to this project as follows: Appendix A provides the empathy definition which was developed by the faculty of the Department of Vocational Education (VOED) at Kent State University (KSU). Descriptive terms of the definition were prioritized by a faculty rating scale as shown in Appendix B. Appendix C shows an empathy instrument developed by the KSU/VOED faculty to measure the "holding power" of at-risk students. Appendix D displays a variety of mean empathy scores from the various sectors of the United States population. This chart can be used when making empathy level comparisons to the current project.



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APPENDIX A  
EMPATHY

DEFINITION

TEACHER EMPATHY: the capacity of a teacher to participate in or vicariously experience a student's feelings, volitions, or ideas; sometimes the student's movements in turn are experienced by the teacher. If complete, empathy is the entering fully, through imagination, into another's feelings or motives, as into the meaning of a work of art.

TEN PRIORITIZED TRAIT/CHARACTERISTICS TO EMPATHY AS DEFINED BY 12 KENT STATE UNIVERSITY VOED FACULTY: interested, caring, supportive, empathetic, helpful, thoughtful, kind, friendly, patient, and compassionate.

# APPENDIX B

## EMPATHY PILOT STUDY GIVEN TO KENT STATE UNIVERSITY VOED FACULTY

### IMPORTANCE LEVEL OF TEACHER TRAIT CHARACTERISTICS WHICH HOLD STUDENTS IN SCHOOL

No.	Trait/Characteristic	Rating	Rank	Order	Trait/Characteristic	Rating
1.	Experience	2.667	1.	Interested	4.889	
2.	Education	3.300	2.	Caring	4.700	
3.	Persuasive beliefs	3.250	3.	Supportive	4.600	
4.	Organizational skill	3.667	4.	Empathetic	4.500	
5.	Class control	4.200	5.	Helpful	4.444	
6.	Political beliefs	1.333	6.	Thoughtful	4.400	
7.	Caring	4.700	7.	Kind	4.333	
8.	Interested	4.889	8.	Friendly	4.333	
9.	Kind	4.333	9.	Patient	4.300	
10.	Friendly	4.333	10.	Compassionate	4.300	
11.	Expresses self	3.900	11.	Concerned	4.222	
12.	Supportive	4.600	12.	Class control	4.200	
13.	Stern	3.100	13.	Sympathetic	4.111	
14.	Ethnic background	1.778	14.	Solves problems	4.100	
15.	Empathetic	4.500	15.	Good listener	4.000	
16.	Solves problems	4.100	16.	Expresses self	3.900	
17.	Businesslike	3.500	17.	Organized	3.667	
18.	Patient	4.300	18.	Persuasive	3.600	
19.	Persuasive	3.600	19.	Business like	3.500	
20.	Compassionate	4.300	20.	Persuasive beliefs	3.250	
21.	Thoughtful	4.400	21.	Happy	3.222	
22.	Powerful	2.125	22.	Stern	3.100	
23.	Forceful	2.125	23.	Educated	3.000	
24.	Helpful	4.444	24.	Experienced	2.667	
25.	Sympathetic	4.111	25.	Powerful	2.125	
26.	Aloof	2.000	26.	Forceful	2.125	
27.	Concerned	4.222	27.	Aloof	2.000	
28.	Happy	3.222	28.	Brave	2.000	
29.	Brave	2.000	29.	Background	1.778	
30.	Good listener	4.000	30.	Politics	1.333	

Scale: (Perceived effect on retention): 1-no effect; 2-little effect; 3-some effect; 4-considerable effect; and 5-great effect.

# APPENDIX C

## EMPATHY: PILOT STUDY GIVEN TO KENT STATE UNIVERSITY VOED FACULTY

### IMPORTANCE LEVEL OF TEACHER TRAIT CHARACTERISTICS WHICH HOLD STUDENTS IN SCHOOL

<u>Student</u> <u>Retention Level</u>	Rank Order	Teacher Trait/Characteristic	Rating
I. Great Effect (98%-90%)	1.	Interested	4.889
	2.	Caring	4.700
	3.	Supportive	4.600
	4.	Empathetic	4.500
II. Considerable Effect (89%-70%)	5.	Helpful	4.444
	6.	Thoughtful	4.400
	7.	Kind	4.333
	8.	Friendly	4.333
	9.	Patient	4.300
	10.	Compassionate	4.300
	11.	Concerned	4.222
	12.	Class control	4.200
	13.	Sympathetic	4.111
	14.	Solves problems	4.100
	15.	Good listener	4.000
	16.	Expresses self	3.900
	17.	Organized	3.667
	18.	Persuasive	3.600
	19.	Business like	3.500
III. Some Effect (65%-53%)	20.	Persuasive beliefs	3.250
	21.	Happy	3.222
	22.	Stern	3.100
	23.	Educated	3.000
	24.	Experienced	2.667
IV. Little Effect (43%-36%)	25.	Powerful	2.125
	26.	Forceful	2.125
	27.	Aloof	2.000
	28.	Brave	2.000
	29.	Background	1.778
V. No Effect (27%)	30.	Politics	1.333

Scale: (Effect on retention): 1-no effect; 2-little effect; 3-some effect; 4-considerable effect; and 5-great effect.

# APPENDIX D

## COMPARATIVE EMPATHY LEVELS - MALE/FEMALE SAMPLES California Psychological Inventory

Basic Normative Sample	Males	Females
Total Sample Normed	20.74	20.77
High School Students		
General	17.87	18.53
National Science Fair Delegates	20.58	21.64
Nominated as Best Citizens	19.71	20.37
Nominated as Leaders	20.34	22.22
Nominated as Most Attractive	18.70	20.04
Nominated as Most Popular	20.03	21.49
Nominated as Disciplinary Problems	17.83	18.40
College Students by Program of Study		
General	22.03	22.82
Architecture	21.84	22.00
Education	24.50	24.21
Engineering	21.80	
Home Economics		22.73
Premedical	25.34	
Military Academy	21.55	
Graduate/Professional School		
Business Administration	24.48	24.41
Medicine	24.19	24.83
Law		26.00
Nursing	22.16	22.58
Optometry	24.30	25.06
Pharmacy	21.58	21.43
Psychology	25.10	24.79
Social Welfare	24.62	24.34
Occupational Samples		
Architects	21.99	
Bankers		20.74
Business Executives	22.20	
College Counselors		22.38
Correctional Officers	19.19	
Engineers	21.28	
Irish Managers	22.57	
Mathematicians	21.91	20.61
Military Officers	22.09	
Parole and Probation Officers	23.89	
Police Officers	22.62	
Registered Nurses		20.65
Research Scientists	23.96	
Sales Managers		22.04
Secondary School Teachers		24.35
University Clerical Personnel		22.12
Other Samples		
Catholic Priests	22.24	
Eastern Religious Group Members	23.18	23.56
Juvenile Delinquents	19.38	18.53
Prison Inmates	17.74	17.28
Psychiatric Patients	18.32	18.35
San Francisco Area Residents	21.96	21.58

Source: Crough, Harrison G. (1989). CPI California Psychological Inventory, Administrator's Guide. Palo Alto, CA: Consulting Psychologists Press.

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