DESCRIPTIVE PROFILES OF BELIEFS OF TEACHERS.
BY - VICKERY, TOM R., JR. BROWN, BOB BURTON

THE BELIEF PATTERNS OF EIGHT GROUPS OF SCHOOL PERSONNEL (STUDENT TEACHERS, COOPERATING TEACHERS, PRINCIPALS, CLINICAL SUPERVISORS, METHODS PROFESSORS, EDUCATION PROFESSORS, OTHER ACADEMICIANS, AND STATE DEPARTMENT OF EDUCATION PERSONNEL), TOTALLING 976 PERSONS, AT SIX INSTITUTIONS (INCLUDING THREE STATE TEACHERS COLLEGES AND TWO LARGE STATE UNIVERSITIES) WERE MEASURED BY THE PERSONAL BELIEFS INVENTORY, THE TEACHER PRACTICES INVENTORY, AND ROKEACH'S DOGMATISM SCALE. THE FIRST TWO INSTRUMENTS MEASURE THE EXTENT TO WHICH THE SUBJECT'S BELIEFS AND PRACTICES ARE IN AGREEMENT WITH JOHN DEWEY'S PHILOSOPHY OF EXPERIMENTALISM. THE ROKEACH SCALE MEASURES RIGIDITY-FLEXIBILITY. THERE WAS GENERAL REJECTION OF EXPERIMENTAL ATTITUDES TOWARD MATTERS OF RELIGION AND MORALS AND STRONG ACCEPTANCE OF THE CONCEPTS OF FACULTY PSYCHOLOGY. CHIEFLY, COOPERATING TEACHERS WERE GENERALLY FOUND TO BE SIGNIFICANTLY LESS EXPERIMENTALLY ORIENTED AND MORE DOGMATIC THAN THE OTHER GROUPS. STUDENT TEACHERS TENDED TO FALL MIDWAY BETWEEN COOPERATING TEACHERS AND EDUCATION PROFESSORS. OF THE SEVERAL GROUPS, EDUCATION PROFESSORS WHO DO NOT SUPERVISE STUDENT TEACHERS WERE FOUND TO BE THE MOST EXPERIMENTALLY ORIENTED AND LEAST DOGMATIC. SUBSTANTIAL DIFFERENCES WERE ALSO FOUND AMONG THE SIX INSTITUTIONS AND AMONG VARIOUS GROUPS WITHIN THE INSTITUTIONS. THE AUTHOR SUGGESTED THAT THE INSTRUMENTS ARE USEFUL FOR STAFF SELECTION WITH A VIEW EITHER TO HOMOGENEITY OR HETEROGENEITY OF VIEWS. (LC)
DESCRIPTIVE PROFILES OF BELIEFS OF TEACHERS

by

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The Teacher Competence Research Project at the University of Florida, a four-year study of the relationship between belief and practice, is now in its third year of data collection. The purpose of this paper is to report and discuss some of the findings of our second year's efforts. Because of the amount and variety of data being collected, it would be impossible to give even an overview of all our findings in such a brief presentation; therefore, this paper will discuss only one area of our study: the belief patterns which we have found to characterize the various groups of educators we have studied.

THE INSTRUMENTATION

There were three instruments used to collect this data: the Personal Beliefs Inventory (PBI), the Teacher Practices Inventory (TPI), and Rokeach's Dogmatism Scale (D Scale). The first two instruments measure the subject's personal philosophy and his beliefs about teaching practice, respectively, in terms of agreement or disagreement.
with John Dewey's philosophy of experimentalism. A high score denotes general agreement with the experimentalist's position.¹ Rokeach's instrument measures the rigidity-flexibility dimensions of the subject's belief pattern; as administered in this instance, a low score indicates dogmatism and a high score, openness of mind. On all three instruments, the subject indicates the extent of his agreement or disagreement with each statement by using a six-point scale, 1 and 6 indicating the extremes of agreement and disagreement.

THE SUBJECTS

The subjects of our research were student teachers at six universities and the educators who had a part in their teacher education programs. Two of the institutions were large state universities, in Wisconsin and Florida, that draw a majority of their students from within the state but that also have considerable attraction for students in the East. Three state teacher's colleges were included in the sample. Although the two in New York were less than 100 miles apart, they were quite different. One, which we shall call New York-1, has around 15,000 students, draws heavily on the metropolitan areas, and educates only secondary teachers. The 5,000 students of New York-2 come primarily from the state's rural areas. Its teacher education program is designed for elementary teachers only. The third state teacher's

¹For the account of the development of these instruments and the reliability studies, see Brown, Bob Burton, "The Relationship of Experimentalism to Classroom Practices" (unpublished Ph.D. dissertation, University of Wisconsin, Madison, 1962); revision and improvement of the instrument is described in Brown, Bob Burton, The Experimental Mind in Education, to be published by Harper and Row in September, 1967.
college, located in the interior of California, is primarily a commuter college; it has about 15,000 students. The only private university included in the study, which will be called Illinois, is located in one of the nation's population centers and draws upon the metropolitan centers of the Midwest for its students. Its 13,000 students represent the highest socio-economic backgrounds of any of the six student bodies. Table I presents the size of the sample groups from each institution.

### Table I

**Composition of Population Studied**

<table>
<thead>
<tr>
<th>University</th>
<th>Student Teachers</th>
<th>Cooperating Teachers</th>
<th>Principals</th>
<th>Clinical Supervisors</th>
<th>Methods Professors</th>
<th>Education Professors</th>
<th>Academicians</th>
<th>State Dept. of Education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>70</td>
<td>59</td>
<td>37</td>
<td>9</td>
<td>2</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>197</td>
</tr>
<tr>
<td>New York-1</td>
<td>59</td>
<td>33</td>
<td>0</td>
<td>26</td>
<td>3</td>
<td>20</td>
<td>36</td>
<td>2</td>
<td>179</td>
</tr>
<tr>
<td>New York-2</td>
<td>65</td>
<td>65</td>
<td>22</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>3</td>
<td>175</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>71</td>
<td>63</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>146</td>
</tr>
<tr>
<td>Illinois</td>
<td>30</td>
<td>20</td>
<td>0</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>71</td>
</tr>
<tr>
<td>Florida</td>
<td>112</td>
<td>80</td>
<td>0</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>208</td>
</tr>
<tr>
<td>Total</td>
<td>407</td>
<td>320</td>
<td>63</td>
<td>71</td>
<td>16</td>
<td>31</td>
<td>56</td>
<td>12</td>
<td>976</td>
</tr>
</tbody>
</table>

**Note:** These categories are self-explanatory with the possible exception of the three groups within the education faculties of the universities. Clinical supervisors are faculty members whose sole responsibility is the supervision of student teachers. Methods professors may or may not supervise student teachers, but their primary responsibility is the teaching of pedagogy. Education professors are those who neither supervise student teachers nor teach pedagogy.
DISTINGUISHING BELIEF PATTERNS BY POSITION

Although several differences were found among groups of educators, the most remarkable of these was the virtual isolation of the cooperating teachers from those members of the college of education who were primarily responsible for areas other than the supervision of student teachers.

Personal Beliefs Inventory

The cooperating teachers' personal beliefs isolated them not only from the members of the college of education, but also from the student teachers and the university academicians. Table II exhibits the means of the various groups and the statistical significance of each of these differences. The nature of the instrument accounts for part of this apartness because it contains several items which concern religious and moral beliefs which a middle-class, conservative public school teacher would have strong feelings about but which would be of little or no consequence to many college students and faculty members.

Consideration of the kinds of items with which educators agreed and disagreed most strongly showed that the differences among groups were small. For example, all the groups included among their five strongest beliefs the following three items:

28. What is right and good at one time and place may not be right and good for all times and places.

1. Change is a basic characteristic of nature, and man has some measure of control over this change by using his intelligence.

3. A statement of fact may be both true and untrue depending on the standpoints and conditions of the observations.

Whenever lists of items from an instrument are cited, the list will begin with the item to which the subjects responded most strongly.
### TABLE II

INSTRUMENT MEANS AND STANDARD DEVIATIONS BY POSITION

<table>
<thead>
<tr>
<th>Group</th>
<th>PBI N</th>
<th>Mean</th>
<th>S.D.</th>
<th>TPI Mean</th>
<th>S.D.</th>
<th>D Scale Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cooperating teachers</td>
<td>320</td>
<td>142.61</td>
<td>18.13</td>
<td>168.50</td>
<td>21.46</td>
<td>158.35</td>
<td>17.53</td>
</tr>
<tr>
<td>2. Student teachers</td>
<td>407</td>
<td>150.09</td>
<td>16.93</td>
<td>172.88</td>
<td>18.66</td>
<td>161.57</td>
<td>17.76</td>
</tr>
<tr>
<td>3. Principals</td>
<td>63</td>
<td>147.98</td>
<td>18.02</td>
<td>177.54</td>
<td>21.02</td>
<td>163.56</td>
<td>18.10</td>
</tr>
<tr>
<td>4. Clinical supervisors</td>
<td>71</td>
<td>153.73</td>
<td>22.69</td>
<td>178.13</td>
<td>21.98</td>
<td>162.70</td>
<td>16.84</td>
</tr>
<tr>
<td>6. Education professors</td>
<td>31</td>
<td>181.77</td>
<td>20.23</td>
<td>184.00</td>
<td>15.23</td>
<td>174.29</td>
<td>18.22</td>
</tr>
<tr>
<td>7. Academic professors</td>
<td>56</td>
<td>156.95</td>
<td>21.33</td>
<td>161.70</td>
<td>18.66</td>
<td>167.32</td>
<td>14.68</td>
</tr>
<tr>
<td>8. State Ed. Department</td>
<td>12</td>
<td>158.25</td>
<td>17.42</td>
<td>173.08</td>
<td>15.47</td>
<td>169.42</td>
<td>19.48</td>
</tr>
<tr>
<td>9. Groups 4+5+6</td>
<td>118</td>
<td>162.45</td>
<td>21.36</td>
<td>179.97</td>
<td>19.49</td>
<td>165.96</td>
<td>17.59</td>
</tr>
<tr>
<td>10. Groups 5+6</td>
<td>47</td>
<td>175.62</td>
<td>19.12</td>
<td>182.74</td>
<td>14.82</td>
<td>170.87</td>
<td>18.70</td>
</tr>
</tbody>
</table>

Significantly different at .05 level (Scheffe)

**PBI**

1 and 2, 4, 5, 6, 7, 9, 10
2 and 1, 6, 10
3 and 6
4 and 1, 6, 10
5 and 1
6 and 1, 2, 3, 4, 7
7 and 1
8 and 1
9 and 1
10 and 1, 2, 4, 7

**TPI**

1 and 10
3 and 7
4 and 7
6 and 7
7 and 3, 4, 6, 10
10 and 1, 7

**D Scale**

1 and 6, 10
6 and 1
10 and 1
And among their five strongest disbeliefs, they all included the same two items:

14. "Mind" is purely intellectual and cognitive; bodily activity is an irrelevant and intruding physical factor.

34. Reaching a condition in which there were no problems would be the ideal life.

The distinguishing beliefs appear when an examination is made of the non-experimental tendencies of each group; i.e., when one looks at the experimental items educators disagreed with most strongly and the non-experimental items they agreed with most strongly. In the first instance, the analysis revealed strong non-experimental trends among educators towards religious and moral matters. The five experimental items which educators, taken as a single group, disagreed with most strongly were the following:

20. There is no spiritual realm which lies beyond man's experience in the natural world.

5. Man doesn't have a "spirit" which is separable from his body and the material world.

21. What is morally right and wrong ought to be decided on warranted evidence--the findings of empirical science.

25. The use of the scientific method can be extended to solve the problems of men in the area of values and moral judgments.

40. Questions of values and morals should be taken out of their traditional supernatural setting and put in a naturalistic setting.

Table III, which presents the number and kind of non-experimental responses each group made, points up the contrast between the education professors, who disagreed with only one experimental item, and the cooperating teachers, who disagreed with six. With the exception of
TABLE III

NUMBER OF ITEMS RESPONDED TO NON-EXPERIMENTALLY
BASED ON GROUP MEANS FOR EACH ITEM

<table>
<thead>
<tr>
<th>Nature of Response</th>
<th>Cooperative Teachers</th>
<th>Student Teachers</th>
<th>Principals</th>
<th>Clinical Supervisors</th>
<th>Methods Professors</th>
<th>Education Professors</th>
<th>Academician</th>
<th>State Dept. of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBI-Disagreement with Experimental Item</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PBI-Agreement with non-Experimental Item</td>
<td>13</td>
<td>6</td>
<td>11</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>TPI-Disagreement with Experimental Item</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TPI-Agreement with non-Experimental Item</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>15</td>
<td>19</td>
<td>17</td>
<td>11</td>
<td>5</td>
<td>18</td>
<td>17</td>
</tr>
</tbody>
</table>

NOTE: The careful reader may note some seeming inconsistencies between Table II and Table III; e.g., how is it possible for the methods professors to respond non-experimentally to fewer items on the TPI than the education professors and yet have a lower group mean? This situation comes about because the education professors agreed more strongly with experimental items and disagreed more strongly on non-experimental items on the remainder of the instrument. The purpose of Table II is to give a comparison of the general belief patterns of each group, but the purpose of Table III is to aid the analysis of those specific beliefs which distinguish among groups of educators.
the education professor, all groups shared disagreement with items 20, 5, and 21 above. The student teachers and the cooperating teachers also disagreed with item 25, and the latter alone disagreed with item 40 above and with item 36.

36. Questions of value and moral judgment ought to be open to experimentation.

The education professors disagreed only with item 21.

Although disagreement with Dewey's experimentalism was confined to religion and morals, agreement with non-experimental items showed a strong trend toward the acceptance of many of the concepts of faculty psychology. This tendency was so strong that one can but wonder how effective the modern instructor in educational psychology is. The flavor of faculty psychology is strong in the five items which educators as a group agreed with most strongly.

27. The mind possesses faculties for remembering, imagining, reasoning, willing, and so forth, which are developed by exercise and discipline.

11. Learning is an application of mental powers to things to be known.

37. Learning is the sum of impressions made on the mind as a result of presentation of the material to be known.

10. Practice is subordinate to knowledge, merely a means to it.

30. The senses and muscles are merely external inlets and outlets of the mind.

Again the sharp contrast between the education professors, who made no non-experimental responses in this fashion, and the cooperating teachers, who made thirteen, is evident. All groups except the education professors agreed with items 11 and 27, and except for the education professors and the academicians, all groups agreed with items 30 and 37. All other non-experimental items agreed with by
any group dealt with the existence of a supreme being, dualism, or the a priori nature of truth and knowledge.

The student teachers seemed to be caught in the middle, so to speak, being significantly different in their personal beliefs from their cooperating teachers and from their education professors. Although student teachers did not share the philosophical conservatism of the cooperating teacher, they were more conservative than those members of the education faculty whose primary responsibility was not the supervision of student teachers. Recency of involvement in the dialogue of the university community could be a factor that helps to separate the student teachers from their cooperating teachers; and the extent of that exposure could be a factor in the isolation of student teachers from education professors. Most of the student teachers and cooperating teachers were within a few course hours on one side or the other of the baccalaureate, but almost all of the education professors had earned doctorates. Thus, the student teachers could be isolated from the cooperating teachers by the students' recent participation in university life but isolated from the education professors by the latter's advanced study and deeper involvement in the university atmosphere.

However, it must be noted that there is a negative relation between involvement with the affairs of the public school classroom and agreement with experimentalism. Table II exhibits the progression from the cooperating teacher, who is most constantly involved with the classroom situation and who is least experimental, to the principal, the student teacher, the clinical supervisor, the state department
worker, the methods professor, and finally the education professor, who lives in the rarefied air of educational theory and is most experimental in belief.

Teacher Practices Inventory

Table III presents one of the most surprising things we found: Except for a single experimental item disagreed with by cooperating teachers, every group agreed with every experimental statement about teaching practices. This single exception was item 25: (A good teacher) lets students become involved in ugly or distressing aspects of subjects.

However, educators taken as a single group agreed with six non-experimental items. The good teacher

10. Makes the acquisition of knowledge and skills the center of students' attention and effort.

5. Asks the kind of questions that students should be able to answer if they have studied the lesson.

3. Makes students emphatically aware that they are here to study and learn.

12. When one student fails to answer a question, asks another student to supply the correct answer.

6. Makes a direct presentation of the subject matter to be covered.

4. Once work has begun, insists that students remain in their places and concentrate on the task at hand.

The groups were unanimous in agreeing on item 10, and all groups except methods professors agreed on items 3, 5, and 6. Education professors and methods professors alone dissented on item 4. The academicians agreed with five other non-experimental items, and of the five, two related to the nature and amount of teacher guidance a student should
be given, two advocated a single course of study and grading scale, and the final item saw the good teacher as one who motivated students extrinsically. The cooperating teachers were the only group that agreed with item 37: (The good teacher) Calls for the undivided attention of the group and scolds those who do not respond. The TPI group means point to the isolation of the methods professors and the academicians, the former who responded non-experimentally to only three items and the latter to eleven. However, reference to Table II shows that the cooperating teachers were again significantly different from those members of the university education faculties whose primary responsibilities are not the supervision of student teachers.

Dogmatism Scale

Table II shows that education professors were very widely separated from both the cooperating teachers and the student teachers on the D Scale. However, the only statistically significant differences were between the cooperating teachers and the education professors and the joint category of education professors plus methods professors.3

3These cleavages among groups of educators appear not only in the total population, but also within individual teacher education programs. For example, in New York-1 those members of the college of education faculty who did not supervise interns were significantly more experimental on both the FBI and the TPI than that institution's cooperating teachers, student teachers, and clinical supervisors. And in Florida the cooperating teachers were so non-experimental that they differed significantly on both the FBI and TPI from the student teachers and the combined college of education faculty.
DISTINGUISHING BELIEF PATTERNS BY INSTITUTION

Not only was it possible to distinguish among groups of educators in terms of their belief patterns, but we found we could distinguish among universities and, in some instances, among the groups of educators at a single university.

Distinguishing Among Institutions

Personal Beliefs Inventory. Figure 1, which contains the means for each instrument for the six universities, documents the two extremes within the study: rural, conservative New York-2 and the urban, sophisticated university in Illinois. These two institutions disagreed on fourteen items, and of these, ten were non-experimental items with which the sample from Illinois disagreed and four were experimental items with which they agreed. New York-2 agreed with the ten non-experimental items and disagreed with the four experimental items. Consideration of individual items showed the differences between schools to involve religion, morals, and psychology. Specifically, Illinois subjects (as a group, of course) did not believe that man has a spirit which is separable from his body or that

15. The ends and laws which should regulate human conduct have been determined by the superior intelligence of an ultimate Being.

They also agreed with items which advocated ethical relativism.

The subjects at New York-2, by way of contrast, believed in the a priori nature of truth and knowledge, in faculty psychology, and in a moral Being who controls man's destiny. As Figure 1 indicates,
Figure 1. MEANS FOR THE SIX UNIVERSITIES ON THE PBI, TPI, AND D SCALE

Significant at .05 level (Scheffe)

<table>
<thead>
<tr>
<th>University</th>
<th>PBI</th>
<th>TPI</th>
<th>D Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. California</td>
<td>151.34</td>
<td>168.60</td>
<td>164.27</td>
</tr>
<tr>
<td>2. New York-1</td>
<td>152.92</td>
<td>166.68</td>
<td>165.07</td>
</tr>
<tr>
<td>3. New York-2</td>
<td>142.70</td>
<td>159.70</td>
<td>177.30</td>
</tr>
<tr>
<td>4. Wisconsin</td>
<td>148.57</td>
<td>160.24</td>
<td>173.14</td>
</tr>
<tr>
<td>5. Illinois</td>
<td>158.69</td>
<td>168.92</td>
<td>165.44</td>
</tr>
<tr>
<td>6. Florida</td>
<td>147.85</td>
<td>157.32</td>
<td>175.46</td>
</tr>
</tbody>
</table>
the other four universities differed significantly from one or the other of these institutions, but no institution was significantly isolated between both.

**Teacher Practices Inventory.** In a strange reversal of form, New York-2 was again isolated, but whereas their FBI score was the least experimental, their TPI score was most experimental. New York-1, which had the next to highest FBI score, had the lowest TPI score. Were the scores of Florida, which also differed significantly from New York-1, and Wisconsin not so close to that of New York-2, one might be tempted to associate the difference between the extreme TPI scores to New York-2's having only an elementary education program and New York-1's only a secondary one. However, Figure 1 shows that those universities that scored at one extreme on the FBI tended to score on the other on the TPI, clearly pointing up the prevalence of a double-edged discrepancy between the two different levels of beliefs.

**Dogmatism Scale.** A similar relationship tends to hold between the D Scale and the TPI. Florida differed significantly from all the other institutions except New York-2 and Wisconsin, and these three had the three highest TPI scores and the lowest FBI scores. They also had the three lowest D Scale scores.4

4Just as the differences among groups of educators in the total population were also found within individual teacher education programs, so major differences among institutional programs were found to exist among similar groups at different universities. For example—and all these examples were significant at the .05 level of confidence—the student teachers at New York-2 were much less experimental on the FBI than their counterparts at Wisconsin and Illinois, but much more so on the TPI than the student teachers at New York-1. Also they were much more dogmatic than their opposites at California and Illinois. Major differences were also found among cooperating teachers and clinical supervisors of different institutions.
SIGNIFICANCE OF THE STUDY

Useful Descriptions

The data presented herein illustrates the usefulness of the instrumentation in describing groups of educators. By making a table similar to Table II for a university one could describe many aspects of its teacher education program. One could talk about those people who teach in the college of education, those who supervise student teachers, the cooperating teachers, and the student teachers themselves. Such information could be useful to school systems hiring new teachers and to prospective university faculty members. For example, an experimentally-oriented education professor might be slow to take a position at an institution where the student body and cooperating teachers would be opposing him in many matters. And such a procedure could be useful in describing and evaluating the effectiveness of the total teacher education program. One could describe a program as experimental, non-experimental, inconsistent, or even contradictory.

Design Uses

One of the reasons that educators have never accomplished their dreams is their failure to produce an effective, consistent teacher education program; and conversely, one of the reasons that American education is open to change and that research-oriented groups do exist to produce this change is the same failure. Whether this "weakness" is good or bad depends, of course, on one's value system. Likewise, the way in which the procedures described in this paper are used would depend on one's values. Such instruments as these make possible the
first steps toward insuring that school systems or teacher education programs are-- or are not-- philosophically and pedagogically consistent. One could engineer the selection of professors and cooperating teachers to bring maximum pressure upon students to adopt a particular philosophical and pedagogical posture or to maintain the sort of heterogeneity which promotes divergence of opinion and prevents stagnation.

SUMMARY

Using instruments designed to measure one's personal philosophy, one's expectation of good teaching, and one's openness of mind, these research efforts found that cooperating teachers usually differ from the education faculties--especially those professors whose primary responsibilities were not the supervision of student teachers--in all three ways. Similar differences were found among universities, among groups holding the same positions at different universities, and among groups within the teacher education program at a single university. Future uses for the instruments were suggested.