Play Activities and School Marks

by

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Chapter 1.

INTRODUCTION

Modern educators and administrators are of the opinion that wholesome play habits are essential to the proper development of a child. The theories regarding the origin of the play impulse are many and varied. However it is generally agreed that anything that hampers a child's play may at the same time hamper his development. Any system of modern education should keep the above general principle in mind. Educators who advocate acceleration of the bright child must proceed slowly because if children of different chronological ages be thrown together subsequent disruption of their play habits may ensue.

The present thesis is a study of play behavior in relation to school marks. Are there differences in the kinds of activities engaged in by children who receive high, average, and low marks in their school work?

This study purports to help answer this question. It is the hope of the writer that subsequent studies will provide an explanation for the differences revealed by the present study.
Chapter 2.

SPECIFIC SCOPE OF THE STUDY DEFINED.

The problem of the present writer is that of making a comparative study of the play activities of children who have been classified into three groups on the basis of teachers' marks received in their regular school work. The three groups are: (1) Those who have received high marks in their school work, (2) Those who have received average marks, and (3) Those who have received low marks.

The purpose of this study is three-fold:

1. It proposes to make a comparative study of the number of play activities engaged in by each of the three groups,

2. It proposes to study the extent to which each group participates in each of the 200 activities of the Lehman Play Quiz.

3. It proposes further to study the tendencies of the three groups in reference to their social participation. Are pupils who receive high marks in school work more or less social in their play than the pupils who receive low marks? Also does either of these two groups deviate from the group that receives average school marks?
Chapter 3.

THE PRESENT STATUS OF THE PROBLEM.

The writer has been unable to find many studies which throw light on the study of play behavior in relation to school marks. A few studies however deserve attention because of the relation they bear to the play interests of the child.

Terman in a recent study of the play activities of gifted children concluded that the gifted are somewhat more interested than the control group in the intellectual and sedentary games.

Witty and Lehman made an intensive study of 50 gifted children of 140 I.Q. or above. They felt that an intensive study of a relatively small group would lead to salient results. They paired each child of 140 I.Q. or above with a mentally average child of like age, sex and environment. They found that the two groups demonstrated the same versatility of interest in play, that is, the mean number of activities participated

* All references in this study are found in the Bibliography. Page 52.
in by the two groups (gifted and control) was identical, but the gifted were more solitary in their play than the average children. It is interesting to note that while the number of activities engaged in by each group was the same, there were individuals in each group who deviated far to either extreme. Moreover, the gifted children engaged less frequently in social play and games. The gifted group spent more time than the control group upon activities involving reading. The gifted group while engaging in active play, tended to avoid the more vigorous forms of play. The writers conclude "that lack of versatility of play interest may not be pointed to as characteristic of the group of gifted children."

Klapper holds that the junior high school graduate is a maladjusted child. He maintains that the eleven year old cannot play safely with the fourteen-year old child who is his mental equal.

Lehman and Witty made an attempt to obtain data in respect to the effect of acceleration upon the play life of the child. They conclude:

(1) Pedagogically retarded children took part
5.
in a considerably larger number of social play
activities than did children who had progressed norm-
ally in school.

(2) Pedagogically accelerated children showed
little variation from children who had progressed
normally in school in reference to the social quality
of their play behavior.

(3) The significant fact is that accelera-
tion did not affect a reduction either in the number
of play activities engaged in or the extent to which
the child participated with others in recreational
activities.\(^4\) p. 325.

Bonser concludes:

(1) Given types of activities are found to
be coincident with school progress, while others are
found to be coincident with retardation. Those
activities which tend to retard may be discouraged
and others substituted which will tend to promote
school progress.

(2) Scouting activities, competitive games,
making things, together with wholesome reading matter,
may be substituted for loafing, shooting craps, steal-
ing rides and reading matter that is trashy, and a
reasonable change may be expected in school progress.\(^5\)
p. 110-111.
Chapter 4.

METHOD OF INVESTIGATION

The method employed in the present study was a modification of the Questionnaire Method. The Lehman Play Quiz was given in the spring of 1926 to over 6000 elementary and high school pupils in the public schools of Kansas City, Missouri.* The Lehman Play Quiz is devised for children of grades three to twelve. Each child was requested to select from a comprehensive and catholic list of two hundred play activities only those activities in which he had participated during the preceding week. Each child was subsequently asked to mark those activities in which he had engaged alone. Later he was also asked to indicate the three best liked activities, and the one activity which in his judgment had consumed the largest amount of his time. A more definite idea of the Play Quiz may be obtained by examining a copy of the quiz and the Manual of Directions found in the Appendix of this study.

*The Lehman Play Quiz was administered by Harvey C. Lehman and Paul A. Witty of the University of Kansas, Lawrence, Kansas, the resultant data being placed at the disposal of the writer for the purpose of making the present study.
After the administration of the Play Quiz, the writer was permitted to utilize the assembled data. He was also admitted to the pupil record files in the schools in which the tests had been given. The following schools were selected for the present study:

Benton
Sanford B. Ladd
Humboldt
Franklin
Horace Mann
Faxon
Central junior high school.

These seven schools are fairly representative of the different types of homes in Kansas City, Missouri. It has been assumed by the present writer that the schools selected give a representative cross section of the homes found in Kansas City. The cards upon which the school marks were recorded were inspected by the writer and the pupils divided into three groups on the basis of the school marks received by them in their regular academic studies. The teachers marks used in the Kansas City schools are as follows:
E—Excellent
S—Superior
M—Medium or Average
P—Poor or Inferior
F—Failure

The three groups included in this study are as follows:

1. Pupils receiving high school marks—
   E and S marks are included in this group.
2. Pupils receiving average marks—only
   M marks are included in this group.
3. Pupils receiving low school marks—P
   and F marks are included in this group.

After the three groups had been equated on
the basis of sex and chronological age, tabulation
was made of the activities engaged in by each pupil.
The number of individuals in each group who had
participated in a given activity was computed in
terms of per cent. Since the groups were of unequal
size, this procedure facilitated group comparisons.
Table I p. 13 shows the method used in the tabula-
tion of the data.
The number of pupils in each of the three groups is shown in Table II, p. 14. Pupils having a school mark on the borderline between groups were omitted from this study. Hence pupils with a mark of M- or S- were not used in determining the three groups. Because of the fact that the teachers in the Kansas City schools are encouraged to train pupils rather than fail them, the numbers of individuals in the groups receiving low marks are sometimes small in comparison with the numbers in other groups. The numbers at the higher and lower age levels are also sometimes smaller than those of age twelve.

The tabulation of the play activities having been made, a study was next made of the kinds of play activities engaged in by each group. Graphs were made to show the extent to which different groups of the same sex and age level participated in a given activity. A clearer idea of this part of the study may be had by a careful examination of Figures 1 to 16, pp. 32-48.
The activities liked best by each group are shown in Tables III and IV, pp. 16 and 18. An examination of Part D of the Lehmann Play Quiz will afford a better understanding of Tables III and IV. Each pupil was requested to indicate the three activities participated in which he liked best. He was asked to name them in the order of preference. However, in the present tabulation no consideration is given to the order of preference. When the data for an entire group were assembled the activity of the entire list of 200 activities which received most frequent mention was given Rank 1. The activity receiving next most frequent mention was given Rank 2. Only Rank 1 and Rank 2 are shown in Tables III and IV.

The Index of Social Participation for each pupil was next ascertained as follows: the number of activities each pupil engaged in with one or more other children was tabulated. The percentage of the total activities that these social activities represented designates the pupil's Index of Social Participation. For example: If a pupil engaged in a total of 20 activities, and engaged in 15 of these activities in company with one or more other persons, his Index of Social Participation would be 15/20 or 75. Thus an Index of Social Participation of 75 indicates that 75% of the activities engaged in by the pupil were ones in which
he participated in company with one or more other persons. A high Index of Social Participation shows that the individual plays much with other children, while a low Index of Social Participation shows that he played mostly by himself. By this method we may determine which groups of pupils are most social in their play behavior.

Table V, p. 20 shows the number of different age levels included in this study and the median Index of Social Participation for boys in each age level.

Table VI, p. 22 shows the median Index of Social Participation for the girls at the various age levels.

Table VII, p. 24 will help to make clear Tables V and VI. Group comparisons become most significant when we compute the percentage of boys of one group who reach or exceed the median of another group. Table VII shows the percentage of boys and girls receiving low school marks who reached or exceeded the median Index of Social Participation of boys and girls receiving high school marks.
The median number of activities engaged in by each group is shown in Tables VIII and IX, pp. 26 and 28. A tabulation was made of the number of activities participated in by the pupils of each group, and the median number of activities engaged in by the group was computed. Table X, p. 30 shows the percentages of pupils receiving low marks reaching or exceeding the median number of activities engaged in by the group receiving high marks.
Table I
Sample of Method Used in Tabulating Play Quiz Data for Each Group.
Age 10 years--Boys
Number of cases- 30.

Group Receiving High Marks

<table>
<thead>
<tr>
<th>Activity No.</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>200</td>
<td>21</td>
<td>70</td>
</tr>
</tbody>
</table>

Explanation of Table:
Column 1 shows the numbers of the play activities, those numbers corresponding to the numbers listed in the Play Quiz. For example No. 10 is Running the Gauntlet, No. 11 Boxing, No. 12 Wrestling etc. Frequency denotes the number of pupils participating in a given activity. The % column shows the percentage of the group that took part in a given activity. Each of the 200 play activities of the Play Quiz is dealt with in this manner.
Table II
Age Frequency Distribution of the Three Groups included in the Present Study.

Boys

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>30</td>
<td>33</td>
<td>16</td>
</tr>
<tr>
<td>11</td>
<td>32</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>12</td>
<td>29</td>
<td>50</td>
<td>38</td>
</tr>
<tr>
<td>13</td>
<td>24</td>
<td>27</td>
<td>57</td>
</tr>
<tr>
<td>14</td>
<td>13</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Totals</td>
<td>128</td>
<td>166</td>
<td>178</td>
</tr>
<tr>
<td>Grand Total Boys----</td>
<td>472</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Girls

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>20</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>11</td>
<td>21</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>24</td>
<td>37</td>
<td>21</td>
</tr>
<tr>
<td>13</td>
<td>40</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>14</td>
<td>17</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Totals</td>
<td>142</td>
<td>127</td>
<td>99</td>
</tr>
<tr>
<td>Grand Total Girls--</td>
<td>366</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Number of Boys and Girls used in this study--736.
Chapter 5

PRESENTATION AND INTERPRETATION OF THE DATA.

The data obtained by the methods set forth in the preceding chapter are presented, along with interpretations thereof in the following tables and figures.

Table III, p. 16 sets forth the best-liked activities of the three groups of boys. First and second rank are given to the different activities liked best. From a study of the table we note the following:

1. Basketball is a much-liked activity of boys receiving average school marks.
2. Dancing is a favorite only among boys of age 14 receiving low school marks.
3. Going to the movies is liked best by the groups receiving high and average school marks.
4. Boxing appears only once in the table. 10 year old boys receiving low marks enjoy this activity.
Table III.
Play Activities Liked Best by Each Group.
First and Second Rank Are Given.

**BOYS**

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1-Coasting on sled</td>
<td>1-Basketball</td>
<td>1- Boxing</td>
</tr>
<tr>
<td></td>
<td>2-Going to movies</td>
<td>2-Movies</td>
<td>2-Coasting on sled</td>
</tr>
<tr>
<td>11</td>
<td>1-Coasting on sled</td>
<td>1-Coasting</td>
<td>1-Ride bicycle</td>
</tr>
<tr>
<td></td>
<td>2-Running Gauntlet</td>
<td>2-Movies</td>
<td>2-Coasting</td>
</tr>
<tr>
<td>12</td>
<td>1-Coasting on sled</td>
<td>1-Basketball</td>
<td>1-Coasting</td>
</tr>
<tr>
<td></td>
<td>2-Swimming</td>
<td>2-Movies</td>
<td>2-Funny paper</td>
</tr>
<tr>
<td>13</td>
<td>1-Movies</td>
<td>1-Basketball</td>
<td>1-Marbles</td>
</tr>
<tr>
<td></td>
<td>2-Basketball</td>
<td>2-Swimming</td>
<td>2-Swimming</td>
</tr>
<tr>
<td>14</td>
<td>1-Playing catch</td>
<td>1-Basketball</td>
<td>1-Swimming</td>
</tr>
<tr>
<td></td>
<td>2-Coasting on sled</td>
<td>2-Golf</td>
<td>2-Dancing</td>
</tr>
</tbody>
</table>

Explanation of table—
Part D of The Lehman Play Quiz requests the pupil to check the three activities he liked best. The activity most frequently checked by a given group was given first rank, the activity checked next most frequently was given second rank. The third rank is not shown in this study.
Table IV, p. 18, lists the best-liked activities of the three groups of girls. Only first and second rank are given. A summary of the table follows:

1. Reading books is given first rank by 4 out of 5 of the different age levels of girls receiving high marks.

2. Reading books is also a best-liked activity of the girls in the group receiving average school marks.

3. Reading books is not listed by the girls receiving low school marks at any age level.

4. Coasting is a well-liked activity in each of the three groups.

5. Movies is a form of activity enjoyed and participated in by each of the three groups.

6. Swimming with girls in the upper age levels is a popular activity in each of the three groups.

7. Dancing is listed only once. Girls in the 14 year age level receiving low school marks take part in this activity.
Table IV

Play Activities Liked Best by Each Group.
First and Second Rank Are Given.

**GIRLS**

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1-Reading books</td>
<td>1-Dolls etc.</td>
<td>1-Coasting</td>
</tr>
<tr>
<td></td>
<td>2-Coasting</td>
<td>2-Reading books</td>
<td>2-Basketball</td>
</tr>
<tr>
<td>11</td>
<td>1-Reading books</td>
<td>1-Reading books</td>
<td>1-Movies</td>
</tr>
<tr>
<td></td>
<td>2-Coasting</td>
<td>2-Coasting</td>
<td>2-Coasting</td>
</tr>
<tr>
<td>12</td>
<td>1-Reading books</td>
<td>1-Coasting</td>
<td>1-Movies</td>
</tr>
<tr>
<td></td>
<td>2-Movies</td>
<td>2-Reading books</td>
<td>2-Sunday School</td>
</tr>
<tr>
<td>13</td>
<td>1-Movies</td>
<td>1-Reading books</td>
<td>1-Movies</td>
</tr>
<tr>
<td></td>
<td>2-Swimming</td>
<td>2-Movies</td>
<td>2-Swimming</td>
</tr>
<tr>
<td>14</td>
<td>1-Reading books</td>
<td>1-Movies</td>
<td>1-Swimming</td>
</tr>
<tr>
<td></td>
<td>2-Swimming</td>
<td>2-Swimming</td>
<td>2-Dancing</td>
</tr>
</tbody>
</table>

Explanation of Table—

Part D of The Lehman Play Quiz requests the pupil to check the three activities he liked best to do. The activity most frequently checked by a given group was given first rank, the activity checked next most frequently was given second rank. The third rank is not shown in this study.
Table V, p. 20, shows the median Index of Social Participation for each group of boys.

Summary:

1. At each age level the median Index of Social Participation of the group receiving low school marks, is higher than the median Index of Social Participation of the group receiving high school marks.

2. The median Index of Social Participation of the group receiving average school marks, is greater than the median of the group receiving high school marks with the exception of the 12 year age group. Here the median of the group receiving high school marks slightly exceeds the median of the group receiving low school marks. The difference is probably not significant.
Table V

Index of Social Participation of the Three Groups of Boys Differentiated on the Basis of Teachers Marks.

<table>
<thead>
<tr>
<th>Age--</th>
<th>10</th>
<th>Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>48</td>
<td></td>
<td>67</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age--</th>
<th>11</th>
<th>Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>48</td>
<td></td>
<td>67</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age 12</th>
<th>Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>58</td>
<td>54</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age 13</th>
<th>Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>50</td>
<td>61</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age 14</th>
<th>Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>46</td>
<td>48</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

The Median Measure is the measure used for I.S.P.

Explanation of Table---

I. S. P. means Index of Social Participation.

The groups are divided according to chronological age.
They are also grouped according to teacher marks. Reading from left to right it may be seen that the I. S. P. for ten year old boys in the High Mark Group is 48. For the average group 67, etc.

Table 6, p. 22 shows the median Index of Social Participation of the three groups of girls, differentiated on the basis of school marks.

Summary:

1. In each group the Index of Social Participation of girls receiving low school marks is greater than the median of the girls receiving high school marks.

2. The same is true for girls receiving average school marks, although the difference is not so marked as in the group receiving low school marks.
### Table VI

Median Index of Social Participation of three groups of Girls Differentiated on the Basis of Teacher Marks.

<table>
<thead>
<tr>
<th>Age--10 Group</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. S. P.</td>
<td>62</td>
<td>72</td>
<td>74</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. S. P.</td>
<td>50</td>
<td>54</td>
<td>64</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. S. P.</td>
<td>55</td>
<td>52</td>
<td>56</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. S. P.</td>
<td>54</td>
<td>48</td>
<td>56</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. S. P.</td>
<td>50</td>
<td>50</td>
<td>67</td>
</tr>
</tbody>
</table>

**Explanation of Table.**

The median of the Index of Social Participation of the group is placed in the body of the table.

I. S. P. means Index of Social Participation. The groups
are divided according to age. They are also grouped according to teacher marks. Reading from left to right the I. S. P. for 10 year boys in the high mark group is 62. For the Average Mark group 72, etc.

Table 7, p. 24 shows the percentage of boys and girls receiving low school marks reaching or exceeding the median Index of Social Participation of the boys and girls receiving high school marks. Summary:

1. - 75% of the boys at age 10 receiving low school marks reach or exceed the median Index of Social Participation of those receiving high school marks.

2. - 90% of the boys at the 14 year age level receiving low school marks reach or exceed the median of the boys receiving high school marks.

3. - At every age level the per cent of boys receiving low school marks reach or exceed the median Index of Social Participation of the boys receiving high school marks, is 50 or more.

4. - At every age level the girls receiving low school marks, reach or exceed the median Index of Social Participation of the girls receiving high school marks. They range from 57% to 68%.
Table VII

Percentages of Boys and Girls Receiving Low School Marks reaching or exceeding the Median Index of Social Participation of the Boys and Girls Receiving High School Marks.

Boys

<table>
<thead>
<tr>
<th>Median I.S.P. of boys receiving High Marks</th>
<th>% of boys receiving low marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 10----48</td>
<td>75</td>
</tr>
<tr>
<td>Age 11----48</td>
<td>65</td>
</tr>
<tr>
<td>Age 12----50</td>
<td>50</td>
</tr>
<tr>
<td>Age 13----58</td>
<td>70</td>
</tr>
<tr>
<td>Age 14----47</td>
<td>90</td>
</tr>
</tbody>
</table>

Girls

| Age 10----62                              | 60                            |
| Age 11----50                              | 68                            |
| Age 12----55                              | 57                            |
| Age 13----54                              | 56                            |
| Age 14----50                              | 65                            |

Explanation of Table.

The Median I. S. P. for ten year old boys of the group receiving high marks is 48. Therefore 75% of the boys in the group receiving low marks reach or exceed the median of the high marks group. This is a significant difference. The percentage for each age level is shown in like manner.
Table VIII, p. 26 shows the median number of activities engaged in by the three groups of boys differentiated on the basis of school marks. In this table the number in one group will sometimes exceed the number in a corresponding group, while in other groups the number will not reach the median of a corresponding group. There is little difference in the median number of activities engaged in by the groups.
TABLE VIII.

Median Number of Activities Engaged in by Three Groups of Boys Differentiated on the Basis of School Marks.

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>32</td>
<td>35</td>
<td>51</td>
</tr>
<tr>
<td>11</td>
<td>33</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>12</td>
<td>33</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>13</td>
<td>33</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>14</td>
<td>30</td>
<td>25</td>
<td>34</td>
</tr>
</tbody>
</table>

Explanation of Table.

The median number of activities engaged in by each group is taken as the measure of the central tendency of the group. 10 year old boys making high marks engaged in a median number of 32 activities as compared with 25 for the group making Average Marks, etc.
Table IX, p. 23, shows the median number of activities engaged in by the three groups of girls differentiated on the basis of school marks. The conclusions reached from a study of this table are similar to the conclusions reached regarding Table VIII. The median number of activities engaged in by each group at the different age levels is nearly the same. In brief, the number of activities engaged in by the three groups differentiated on the basis of school marks is approximately the same.
Table IX

Median Number of Activities Engaged in by Three Groups of Girls Differentiated on the Basis of School Marks.

<table>
<thead>
<tr>
<th>Age</th>
<th>High Marks</th>
<th>Average Marks</th>
<th>Low Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>31</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>11</td>
<td>30</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>12</td>
<td>30</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>14</td>
<td>30</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>

Explanation of Table.

The median number of activities engaged in by each group is taken as the measure of the central tendency of the group. 10 year old girls receiving high marks engaged in a median number of 31 activities as compared with 28 for the group receiving average marks.
Table X, p. 30 shows the percentage of boys and girls receiving low school marks, reaching or exceeding the median number of activities of boys and girls receiving high school marks. At a few age levels the boys and girls of the low-age group reach or exceed the median of the girls and boys receiving high school marks. At other age levels they fail to reach the median of the group receiving high school marks. From the table we conclude that about 50% of each group reach or exceed the median of the other groups.
Table X
Percentages of Boys and Girls Receiving Low School Marks Reaching or Exceeding the Median Number of Activities of Boys and Girls Receiving High School Marks.

**BOYS**

<table>
<thead>
<tr>
<th>Median number of activities of boys receiving high marks</th>
<th>% of boys receiving low marks reaching or exceeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 10 ----- 32</td>
<td>----------------------------------------------- 60</td>
</tr>
<tr>
<td>Age 11 ----- 33</td>
<td>----------------------------------------------- 40</td>
</tr>
<tr>
<td>Age 12 ----- 33</td>
<td>----------------------------------------------- 50</td>
</tr>
<tr>
<td>Age 13 ----- 33</td>
<td>----------------------------------------------- 45</td>
</tr>
<tr>
<td>Age 14 ----- 30</td>
<td>----------------------------------------------- 50</td>
</tr>
</tbody>
</table>

**GIRLS**

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of Activities</th>
<th>% of Boys Receiving Low Marks Reaching or Exceeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 10</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Age 11</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Age 12</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Age 13</td>
<td>28</td>
<td>50</td>
</tr>
<tr>
<td>Age 14</td>
<td>30</td>
<td>42</td>
</tr>
</tbody>
</table>

Explanation of Table.

The median number of activities engaged in by boys receiving high school marks is 32. Therefore 60% of the boys in the group receiving low school marks reach or exceed the median of the high-mark group. The percentage for each age level is shown in like manner.
The figures presented in the following pages show a comparative study of the three groups, differentiated on the basis of school marks, and the extent in which they participate in certain activities.

Only the most interesting comparisons out of 200 play activities are shown in these figures.
Fig. 1. Comparison of the Three Groups of Boys on "Reading".

High Marks
Average Marks
Low Marks
Fig. 2. Comparison of the Three Groups of Boys on "Reading Magazines".

- High Marks
- Average Marks
- Low Marks
Fig. 3. Comparison of the Three Groups of Boys on "Reading Newspapers"

- High Marks
- Average Marks
- Low Marks
Fig. 4. Comparison of the Three Groups of Boys on "Reading Sunday Funnies"
Fig. 5. Comparison of the Three Groups on "Reading Comic Strips"
Fig. 6. Comparison of the Three Groups of Boys on "Reading Jokes and Funny Sayings"
Fig. 7. Comparison of the Three Groups of Girls on "Reading Jokes and Funny Sayings".

- High Marks
- Average Marks
- Low Marks
Fig. 8. Comparison of the Three Groups of Girls on "Reading Books".

High Marks
Average Marks
Low Marks
Fig. 9. Comparison of the Three Groups of Girls on "Reading Jokes and Funny Sayings".

High Marks
Average Marks
Low Marks
Fig. 10. A comparison of Three Groups of Boys on "Just Imagining Things".

- High Marks
- Average Marks
- Low Marks
Fig. 11. Comparison of Three Groups of Girls on "Just Imagining Things"

High Marks  
Average Marks  
Low Marks
Fig. 12. Comparison of Three Groups of Boys on "Follow The Leader".

High Marks
Average Marks
Low Marks
Fig. 13. Comparison of Three Groups of Boys on "Teasing Somebody".

- High Marks
- Average Marks
- Low Marks
Fig. 14. Comparison of Three Groups of Girls on "Teasing Somebody".

- High Marks
- Average Marks
- Low Marks
Fig. 15. Comparison of the Three Groups of Boys on "Running Races"

High Marks
Average Marks
Low Marks
Fig. 16. Comparison of Three Groups of Girls on "Running Races"
Chapter 6.

SUMMARY AND CONCLUSIONS.

1. The present study was conceived as an attempt to help answer the following questions:
   a - Which group of children, differentiated on the basis of school marks, participate in the greatest number of play activities?
   b - To what extent did each of the groups mentioned above participate in each of the 200 play activities of the Lehman Play Quiz?
   c - Are pupils who receive high marks in school more or less social in their play than pupils who receive low school marks? Do the two groups deviate from that group receiving average school marks?

2. Data regarding the play activities of over 6000 children in the public schools of Kansas City, Missouri, were secured by means of the Lehman Play Quiz. The writer was permitted to utilize the assembled data.
3. The pupils included in this study were divided into three groups on the basis of school marks. The groups were: Those receiving high school marks, those receiving average school marks, and those receiving low school marks.

4. The following facts were found:

a. In the light of the data assembled, pupils receiving high school marks, average school marks, and low school marks, participate in about the same number of play activities. The old contention that children of high intelligence do not take part in play activities to any great extent does not seem a valid contention. The finding that pupils in each of the three groups participate in approximately the same number of play activities corroborates the findings of similar studies already made.

b. There is a marked tendency for children receiving high school marks to participate in activities involving reading. In Tables III and IV we find "reading books" a well liked activity of the group receiving high school marks and the group receiving average school marks, but not listed by the pupils receiving low school marks. The
more vigorous forms of physical activity were popular with the group receiving low school marks. c. Pupils who receive low school marks tend to be more social in their play than pupils receiving high school marks or average school marks. In other words the bright pupil tends to be more solitary in his play.

Because of the subjective nature of the present study, together with the relatively small groups, any attempt to draw general conclusions, or to state certain findings as facts, would be highly speculative. However in conclusion the writer wishes to suggest a few possible answers to the two most important findings in the study. The reader is at liberty to choose the better solution, or better still to suggest a better answer himself.

1. In attempting an answer to the question of why pupils receiving low school marks are more social in their play, the following are suggested:

a. The child receiving low school marks is content with his associates. He finds a high degree of complacency in company with his playmates. The child who receives high school marks does not find this degree of complacency with his playmates and turns to solitary activities such as reading, seeking to find contentment.
b. The child receiving low school marks is more social in his play because he cannot appreciate activities involving reading and comprehension. He turns to his playmates as an escape mechanism, to attain a greater degree of self satisfaction.

2. Why does the child receiving low school marks indulge in the more vigorous forms of play? The following explanations are suggested:
   a. The child receiving low school marks spends so much of his time in strenuous play, that he has little time left for the other activities.
   b. He participates in activities of motor forms because he has greater success in these forms of play. He tends to do that thing he can do best.


6. Anderson, Thelma Hill, Trait Ratings Received by Sociable and Unsociable Groups of Boys, Master's Thesis, University of Kansas, 1926.

Lehman’s Play Quiz
For Grade 3 or Above

Name__________________________________________Grade______

Date of Birth__________________________________________Sex______

Number of Brothers_________Number of sisters_________

City______________________________School________________________

Teacher________________________Present Date______________________

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

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Part A

What things have you been doing during the past week just because you wanted to?

Read through the following list of toys and games and other things, and as you read through the list, draw a circle with your pencil around each number that stands in front of anything that you have played with during the past week, or anything that you have done during the past week just because you wanted to do it.

1 Football.  
2 Basket Ball.  
2 Baseball with a hard ball.  
4 Ball with an indoor or playground ball.  
5 Just playing catch.  
6 Volley ball.  
7 Handball.  
8 Golf.  
9 Tennis.  
10 Running the gauntlet.  
11 Boxing.  
12 Wrestling.  
13 Doing cross-word puzzles.  
14 Checkers.  
15 Chess.  
16 Dominoes.  
17 Marbles.  
18 Roller-skating.  
19 Sliding on a playground slide.  
20 Sliding on a toboggan slide.  
21 Coasting on a coaster.  
22 Coasting on a wagon.  
23 Coasting on a sled.  
24 Swinging.  
25 Ice-skating.  
26 Sleighb-riding.  
27 Riding in an auto.  
28 Driving an auto.  
29 Riding a bicycle.  
30 Horse-back riding.  
31 Rolling a hoop.  
32 Rolling an auto tire.  
33 Telling stories.  
34 Listening to stories.  
35 Watching athletic sports.  
36 Excursions to woods, parks, country, etc.  
37 Gathering fruit.  
38 Gathering berries.  
39 Gathering nuts.  
40 Gathering flowers.  
41 Collecting stamps, birds’ eggs, and so on.  
42 Just hiking or strolling.  
43 Going to the movies.  
44 Attending the theatre.  
45 Going to entertainments, concerts and so on.  
46 Sight-seeing.  
47 Attending lectures.  
48 Visiting or entertaining company.  
49 Chewing gum.  
50 Smoking.  
51 Having ‘dates.’  
52 Just loafing or lounging.  
53 Social dancing.  
54 Folk-dancing.  
55 Card games, such as authors, bridge, whist, etc.  
56 Literary clubs.  
57 Social clubs, or being with the gang.  
58 Listening to the victrola.  
59 Listening to the radio.  
60 Playing the piano (for fun.)  
61 Playing other musical instruments for fun.  
62 Looking at the Sunday ‘funny paper.’  
63 Reading jokes of funny sayings.  
64 Reading the newspapers.  
65 Reading or looking at magazines.  
66 Reading books.  
67 Reading short stories.  
68 Looking at the daily comic strips.  
69 Telling or guessing riddles.  
70 Writing letters.  
71 Writing poems.  
72 Telling fortunes or having fortunes told.  
73 Hunting.  
74 Fishing.  
75 Boating or canoeing.  
76 Camping out.  
77 Building or watching bonfires.  
78 Climbing porches, trees, fences, posts, etc.  
79 Doing gymnasium work.  
80 Doing stunts in the gymnasium.  
81 Turning handsprings, cartwheels, etc.  
82 Doing calisthenics.  
83 Playing on the giant stride.  
84 Playing teeter-totter.  
85 Just running and romping.  
86 Running races.  
87 Hop, skip and jump.  
88 Jumping for distance.  
89 Jumping for height.  
90 Pole vaulting.
Leap frog.
Hop-scotch.
Jumping or skipping rope.
Other hopping games played on sidewalk.
Follow your leader.

Fox and geese.
Kick the can.
Run sheep run.
Hide 'and seek.
Blind man's bluff.

Hide the button.
Hide the thimble.
Anty-over.
Black man.
Other tag games.

Crack the whip.
Whistling.
Dodge ball.
Old sow.
Dare base.

Making something.
Fixing or repairing something.
Bean bags.
Jacks.
Matching pennies.

Throwing dice or Playing 'Put and Take.'
Stealing water melons, fruit, etc., for fun.
Playing pool.
Billiards.
Bowling.

Croquet.
Pitching horse-shoes.
Going to Sunday School (If you liked it.)
Going to church or to mass.
Mumbly peg.

3rd and 4th grades stop here

1st day

Throwing rocks or stones.
Shinney on your own side.
Pillow fights.
Snowball fights.
Teasing somebody.

Teasing birds or animals.
Bow and arrows.
Shooting a gun.
Playing in the sand.
Wading in the water.

Building a dam.
Swimming.
Dressing up in older folks' clothing.
Playing circus.
Playing house.

Playing horse.
Playing store.
Playing school.
Playing church.
Playing Sunday school.

Riding a velocipede.
Playing nurse.
Playing bandit.
Playing soldier.
Playing cowboy.

Playing Indian.
Train conductor, engineer or brakeman.
Playing robber and police.
Playing movie actor or actress.
Playing other make-believe games.

Just imagining things.
Statuary.
Going to parties or picnics.
"Here I come" "Where from?"
Tin-tin.

Post-office.
Spin the pan.
London bridge.
Other singing games.
Just singing.

Drop the handkerchief.
Three deep.
Other ring games.
Old witch.
Pussy wants a corner.

Making mud pies, mud dolls, etc.
Clay modelling.
Drawing with pencil, pen, chalk or crayon.
Painting with water-colors.
Cutting paper things with a scissors.

Making a scrap-book.
Taking snap-shots.
Stringing beads.
Sewing, knitting, crocheting, etc., for fun.
Using a hammer, saw, nails, etc., for fun.
### Part B

Write in the blank spaces below the names of any toys or games or other things which took up some of your time during the past week, and which you liked, but which are not included in the printed list.

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Toy airplanes, toy balloons, toy parachutes.</td>
</tr>
<tr>
<td>202</td>
<td>Toy trains, ships, autos, wagons, etc.</td>
</tr>
<tr>
<td>203</td>
<td>Playing fire engine (or hook and ladder).</td>
</tr>
<tr>
<td>204</td>
<td>Looking at pictures.</td>
</tr>
<tr>
<td>205</td>
<td>Toy blocks.</td>
</tr>
</tbody>
</table>

---

### Part C

Now count the number of different things that you did during the past week just because you wanted to. Write the number in the blank space below.

I did .............. different things during the past week just because I wanted to.

Now print the letter “A” in front of each thing that you did ALONE. Now count the number of “A’s”. Write the number of “A’s” in the blank space below.

I did .............. of these things all by myself.

---

### Part D

Now write in the blank spaces below the numbers of the three things that you liked best. If you are not sure, just guess.


Now write in the blank space below the number of the one thing to which you gave the most time. If you are not sure, just guess.

Number .......... took up more of my time than anything else.

---

### Part E

Now state the occupation that you intend to follow ..........................................................
LEHMAN'S PLAY QUIZ

Introductory Statement

This 'Play Quiz' is a means of making a study of the behavior of school children with special reference to such variables as age, sex, race, season, etc., in play activities. In order that the resulting data be valid it is necessary that the quiz be administered always in a uniform manner. For this reason the following set of detailed directions has been prepared.

The value of this study will depend largely upon the precision with which the directions are followed. It is urged therefore that you READ THE INSTRUCTIONS CAREFULLY. It has been found that, when teachers fail to follow directions specifically, pupils report having built snow houses at a time when no snow was available. Such results are, of course, absolutely worthless. Therefore, please bear the following points in mind:-

1. IN GIVING INSTRUCTIONS TO PUPILS, DO NOT VARY THE SPECIFIC WORDING.

2. DO NOT SUGGEST games or play activities to the pupils at any time. Such suggestions would be almost sure to produce spurious results. Do not allow rivalry to develop over the question as to the number of games engaged in, etc.

3. In reading the instructions to the pupils pause for about two seconds at the end of each sentence. This will afford the pupils time to grasp the meaning of each sentence as it is read. In reading the list of play activities, pause similarly after the name of each activity.* This will afford time for recall.

4. This quiz is too long for 3rd and 4th grade pupils to complete at one sitting. The 3rd and 4th grade pupils will take therefore only the first 125 items on the first day of the quiz. They will then finish the task on the following day. The older pupils may finish the quiz at a single sitting.

5. READ ALOUD ALL PARTS TYPED IN CAPITAL LETTERS.

* Applies only to teachers of grades 3 and 4. Pupils of grade 5 and above will read the list for themselves.
Procedure

Before passing the quiz papers, have the pupils clear their desks. Then, having gained their attention, read to them the following:

"TODAY I AM GOING TO GIVE YOU A QUIZ THAT WILL BE FUN TO TAKE. IT IS A QUIZ ON WHAT YOU HAVE BEEN DOING DURING THE PAST WEEK JUST BECAUSE YOU WANTED TO."

Now pass the quiz papers, allowing each pupil one copy only. After the papers have been distributed, continue to read the capitalized words and point to the spaces as they are mentioned in the directions following:

"NOW LET US FILL IN THE EMPTY SPACES. NOTICE THE PLACE WHERE IT SAYS 'NAME'. WRITE YOUR NAME IN QUICKLY. NOTICE THE PLACE WHERE IT SAYS 'GRADE'. WRITE IN YOUR GRADE. NOTICE THE NEXT PLACE 'BOY OR GIRL'. WRITE IN WHICH YOU ARE. NEXT 'AGE LAST BIRTHDAY'. WRITE IN YOUR AGE ON YOUR LAST BIRTHDAY. REMEMBER, NOT YOUR AGE THE NEXT TIME YOU HAVE A BIRTHDAY, BUT YOUR AGE ON YOUR LAST BIRTHDAY.

"NOW NOTICE THE PLACE WHERE IT SAYS 'NUMBER OF BROTHERS'. PRINT THE NUMBER THAT TELLS HOW MANY BROTHERS YOU HAVE. IF YOU HAVE NO BROTHERS, PRINT ZERO. NOW NOTICE WHERE IT SAYS 'NUMBER OF SISTERS'. PRINT THE NUMBER THAT TELLS HOW MANY SISTERS YOU HAVE. IF YOU HAVE NO SISTERS, PRINT ZERO.

"NOW NOTICE WHERE IT SAYS 'CITY'. HERE YOU MUST WRITE IN THE NAME. (Mention the name of the city and spell it for them. Rural teachers will please mention the name of their county and have the pupils insert it in this space.)

"NOW NOTICE THE LAST EMPTY SPACE 'DATE'. WRITE IN THE PRESENT DATE _, __, 192_. (Give them the month, the day of the month, and the year)

"DON'T LAY YOUR PENCILS DOWN. LISTEN CAREFULLY. TO DO WELL IN THIS TEST YOU MUST DO JUST ONE THING AT A TIME.

"TURN THE FIRST PAGE AND NOTICE THIS LIST OF TOYS AND GAMES ON PAGE 2. (Hold up a sample play quiz and point to page 2) IN A MOMENT WE ARE GOING TO READ THROUGH THIS LIST. DO NOT START WORK YET. WHEN YOU READ THROUGH THE LIST DRAW A CIRCLE AROUND EACH NUMBER THAT STANDS IN FRONT OF ANY TOY THAT YOU HAVE BEEN PLAYING WITH, OR ANY GAME THAT YOU HAVE BEEN PLAYING, OR ANYTHING ELSE THAT YOU HAVE BEEN DOING, DURING THE PAST WEEK, JUST BECAUSE YOU WANTED TO. DO IT LIKE THIS:-(Write the two following phrases on the blackboard. Write the digits also)

1. Riding on a warship. 2. Going up in an airplane.

Continue to read the capitalized words:- "IF YOU DID THOSE THINGS DURING THE PAST WEEK, AND IF YOU LIKED TO DO THEM, DRAW CIRCLES AROUND THE NUMBERS IN FRONT OF THEM, LIKE THIS:- (Draw circles around the digits, thus:-

1) 2)

"BUT IF YOU DID NOT DO THOSE THINGS DURING THE PAST WEEK, OR IF YOU DID THEM, BUT DID NOT LIKE DOING THEM, DO NOT MAKE ANY CIRCLES.
"BE CAREFUL NOT TO MAKE ANY MISTAKES, BUT IF YOU DO MAKE A MISTAKE, DO NOT ERASE. JUST DRAW A LINE THROUGH THE MISTAKE LIKE THIS:— (Draw a line through the circles on the blackboard, thus:—)

1: Riding on a warship.  2: Going up in an airplane.

Continue reading the capitalized words:— "DO NOT THINK OF THE THINGS THAT YOU HAVE BEEN WATCHING OTHER PEOPLE HAVING FUN AT.* THINK OF JUST THE THINGS THAT YOU HAVE BEEN HAVING FUN DOING. DO NOT REPORT ANY OF THE THINGS THAT YOU DID A LONG TIME AGO. REPORT THE THINGS THAT YOU HAVE BEEN DOING DURING THE PAST WEEK. DO NOT PUT JUST THE THINGS THAT YOU HAVE BEEN DOING HERE AT SCHOOL. YOU MUST PUT DOWN THE THINGS THAT YOU HAVE BEEN DOING AT SCHOOL, AND AT HOME, AND EVERY PLACE ELSE THAT YOU HAVE BEEN HAVING ANY FUN.

"NOW WE SHALL GO THROUGH THE LIST TOGETHER. NOTICE NO. 1, 'FOOTBALL'. IF YOU HAVE PLAYED FOOTBALL DURING THE PAST WEEK JUST BECAUSE YOU LIKED TO PLAY IT, PUT A CIRCLE AROUND THE FIGURE 1. BUT IF YOU HAVE NOT PLAYED FOOTBALL DURING THE PAST WEEK JUST BECAUSE YOU LIKED TO PLAY IT, DO NOT PUT ANYTHING.

"NOW, NOTICE NO. 2, 'BASKET BALL'. IF YOU HAVE PLAYED BASKET BALL DURING THE PAST WEEK JUST BECAUSE YOU LIKED TO PLAY IT, PUT A CIRCLE AROUND THE FIGURE 2. BUT IF YOU HAVE NOT PLAYED BASKET BALL DURING THE PAST WEEK JUST BECAUSE YOU LIKED TO PLAY IT, DO NOT PUT ANYTHING.

"NOW I AM GOING TO READ THROUGH THE ENTIRE LIST. YOU MUST FOLLOW ON YOUR PAPERS AS I READ. IF YOU HAVE DONE ANYTHING DURING THE PAST WEEK JUST BECAUSE YOU WANTED TO, PUT A CIRCLE AROUND ITS NUMBER. BUT IF YOU DID NOT DO IT DURING THE PAST WEEK, OR IF YOU DID IT BUT DID NOT LIKE IT, DO NOT PUT ANYTHING.

"WHENEVER YOU FIND THAT YOU HAVE FORGOTTEN TO MAKE A CIRCLE THAT YOU SHOULD HAVE MADE, GO BACK AND MAKE IT."

Now start reading the list, pausing for about two seconds after each item. After the first 125 items have been read, collect the papers of the 3rd and 4th grade pupils.** On the day following, pass the papers to their owners and, after briefly reviewing what is to be done, continue reading the list. Make sure that each pupil finds the proper place by pointing to No. 126 when you start to read.

(Notice for teachers of grades 3 and 4) The papers of pupils who are absent on either day of the quiz will be only partly filled out. If convenient to do so, have such papers completely filled out before sending them in. If this proves to be inconvenient, make a prominent notation on the front page of such papers to indicate that they are not completed.

* 'Watching athletic sports' (no. 199) is plainly an exception to this rule. Say nothing about exceptions unless the question is raised.
** Rural teachers may have the pupils of all grades spend two days at the play quiz if they find this more convenient.
PART B

When the pupils are ready for Part B, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART B'? AND DO YOU SEE THESE EMPTY SPACES? (Point to them) NOW THINK OF ANY TOYS THAT YOU HAVE PLAYED WITH, OR ANY GAMES THAT YOU HAVE PLAYED DURING THE PAST WEEK, WHICH ARE NOT PRINTED IN THE LIST. IF YOU CAN THINK OF ANY, WRITE THEM IN THE EMPTY SPACES OF PART B." (Eating, sleeping, etc., are not to be written in Part B.)

PART C

When the pupils are ready for Part C, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART C'? AND DO YOU SEE WHERE IT SAYS 'I DID ........... DIFFERENT THINGS DURING THE PAST WEEK JUST BECAUSE I WANTED TO'? (Point to the proper place) NOW GO BACK OVER THE ENTIRE LIST AND COUNT THE NUMBER OF DIFFERENT THINGS THAT YOU DID DURING THE PAST WEEK AND WRITE THE NUMBER IN THIS EMPTY SPACE. (Point to the proper place and allow time for counting)

After the preceding task has been finished say to the pupils:— "NOW LISTEN CAREFULLY. I WANT YOU TO PRINT THE LETTER 'A' IN FRONT OF EACH THING THAT YOU DID ONLY WHEN YOU WERE ALONE WOR WITH GROWN-UPS.

"FOR EXAMPLE, LOOK AT ACTIVITY NO. 26, 'RIDING IN AN AUTO'. OF COURSE, IF YOU DID NOT GO AUTO RIDING DURING THE PAST WEEK YOU MUST NOT PRINT ANYTHING. IF YOU WENT AUTO RIDING EVEN ONCE DURING THE PAST WEEK WITH ONE OR MORE PEOPLE, OTHER THAN GROWN-UPS, YOU MUST NOT PRINT ANYTHING. BUT IF YOU WENT AUTO RIDING ONLY ALONE, OR WITH GROWN-UPS, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 26.

"NOW LOOK AT ACTIVITY NO. 40, 'GOING TO THE MOVIES'. IF YOU DID NOT GO TO THE PICTURE SHOW AT ALL DURING THE PAST WEEK DO NOT PRINT ANYTHING. IF YOU WENT TO THE PICTURE SHOW EVEN ONCE DURING THE PAST WEEK WITH ONE OR MORE PEOPLE, OTHER THAN GROWN-UPS, DO NOT PRINT ANYTHING. (As here used 'Going with them' means going with them all the way, or any part of the way, to or from the show) BUT IF YOU WENT TO THE PICTURE SHOW ONLY ALONE, OR WITH GROWN-UPS, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 40.

"NOW LOOK AT ACTIVITY NO. 200, 'HELPING SOMEBODY WITH HIS WORK'. IF YOU HAVE HELPED ANY BOY OR GIRL DURING THE PAST WEEK DO NOT PRINT ANYTHING IN FRONT OF ACTIVITY NO. 200. IF YOU HELPED/SOME GROWN-UP PERSON, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 200. ONLY

"NOW GO THROUGH THE ENTIRE LIST OF ACTIVITIES AND PRINT THE LETTER 'A' IN FRONT OF EACH THING THAT YOU DID ONLY WHEN YOU WERE ALONE OR WITH GROWN-UPS.

When the pupils have finished the preceding task say to them:— "NOW COUNT THE NUMBER OF 'A'S AND WRITE THE NUMBER IN THE NEXT EMPTY SPACE. (Point to it and allow time for counting)
PART D

When the pupils are ready for Part D, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART D'? AND DO YOU SEE WHERE IT SAYS 'I LIKED NUMBER..... BEST OF ALL. I LIKED NUMBER.....NEXT BEST. I LIKED NUMBER.....THIRD BEST? (Point to these three sentences) WHICH THREE THINGS DID YOU LIKE BEST TO DO? LET US GO BACK AND LOOK AT ALL THE PLACES WHERE WE HAVE PUT CIRCLES. PUT THE NUMBER OF THE ONE THING THAT YOU LIKED BEST IN THIS FIRST EMPTY SPACE. (Point to it) PUT THE NUMBER OF THE THING THAT YOU LIKED NEXT BEST IN THIS SECOND SPACE. (Point to it) AND PUT THE NUMBER OF THE THING THAT YOU LIKED THIRD BEST IN THIS THIRD EMPTY SPACE. (Point to it) IF YOU ARE NOT SURE WHICH THINGS YOU HAD THE MOST FUN DOING, JUST GUESS."

After this has been completed say to the class:— "NOW DO YOU SEE THIS LAST LINE WHERE IT SAYS 'NUMBER......TOOK UP MORE OF MY TIME THAN ANYTHING ELSE'? NOW THINK OF THE ONE THING THAT TOOK UP MOST OF YOUR SPARE TIME AND PUT ITS NUMBER IN THIS LAST EMPTY SPACE. (Point to it) IF YOU ARE NOT SURE OF THE ONE THING THAT TOOK UP THE MOST OF YOUR SPARE TIME, JUST GUESS."

After all four parts of the quiz have been completed, collect the papers. Since this is not a speed test, the papers need not be handed in simultaneously. After the papers have been collected, glance hastily through the pile and note any gross errors that may have been made. If you do this in the presence of the class it might be well to explain to them that you are merely seeing whether everyone has followed the directions carefully.

Note any papers which seem to have an excessive number of circles. Question the owners of such papers and, if they admit that they failed to pay attention to the phrase 'During the past week', make a prominent notation to that effect on the front page of their quiz sheets.

Please return the unused quiz sheets along with the others. You are, of course, welcome to retain samples if you want them.
LEHMAN'S PLAY QUIZ

Introductory Statement

This 'Play Quiz' is a means of making a study of the behavior of school children with special reference to such variables as age, sex, race, season, etc., in play activities. In order that the resulting data be valid it is necessary that the quiz be administered always in a uniform manner. For this reason the following set of detailed directions has been prepared.

The value of this study will depend largely upon the precision with which the directions are followed. It is urged therefore that you READ THE INSTRUCTIONS CAREFULLY. It has been found that, when teachers fail to follow directions specifically, pupils report having built snow houses at a time when no snow was available. Such results are, of course, absolutely worthless. Therefore, please bear the following points in mind:-

1. IN GIVING INSTRUCTIONS TO PUPILS, DO NOT VARY THE SPECIFIC WORDING.

2. DO NOT SUGGEST games or play activities to the pupils at any time. Such suggestions would be almost sure to produce spurious results. Do not allow rivalry to develop over the question as to the number of games engaged in, etc.

3. In reading the instructions to the pupils pause for about two seconds at the end of each sentence. This will afford the pupils time to grasp the meaning of each sentence as it is read. In reading the list of play activities, pause similarly after the name of each activity.* This will afford time for recall.

4. This quiz is too long for 3rd and 4th grade pupils to complete at one sitting. The 3rd and 4th grade pupils will take therefore only the first 125 items on the first day of the quiz. They will then finish the task on the following day. The older pupils may finish the quiz at a single sitting.

5. READ ALOUD ALL PARTS TYPED IN CAPITAL LETTERS.

* Applies only to teachers of grades 3 and 4. Pupils of grade 5 and above will read the list for themselves.
Procedure (Grade 5 or above)

Before passing the quiz papers, have the pupils clear their desks. Then, having gained their attention, read to them the following:

"TODAY I AM GOING TO GIVE YOU A QUIZ THAT WILL BE FUN TO TAKE. IT IS A QUIZ ON WHAT YOU HAVE BEEN DOING DURING THE PAST WEEK JUST BECAUSE YOU WANTED TO."

Now pass out the quiz papers, allowing each pupil one copy only. After the papers have been distributed, continue to read the capitalized words and point to the spaces as they are mentioned in the directions following:

"NOW LET US FILL IN THE EMPTY SPACES. NOTICE THE PLACE WHERE IT SAYS 'NAME'. WRITE YOUR NAME IN QUICKLY. NOTICE THE PLACE WHERE IT SAYS 'GRADE'. WRITE IN YOUR GRADE. NOTICE THE NEXT PLACE 'BOY OR GIRL'. WRITE IN WHICH YOU ARE. NEXT 'AGE LAST BIRTHDAY'. WRITE IN YOUR AGE ON YOUR LAST BIRTHDAY. REMEMBER, NOT YOUR AGE THE NEXT TIME YOU HAVE A BIRTHDAY, BUT YOUR AGE ON YOUR LAST BIRTHDAY.

"NOW NOTICE THE PLACE WHERE IT SAYS 'NUMBER OF BROTHERS'. PRINT THE NUMBER THAT TELLS HOW MANY BROTHERS YOU HAVE. IF YOU HAVE NO BROTHERS, PRINT ZERO. NOW NOTICE WHERE IT SAYS 'NUMBER OF SISTERS'. PRINT THE NUMBER THAT TELLS HOW MANY SISTERS YOU HAVE. IF YOU HAVE NO SISTERS, PRINT ZERO.

"NOW NOTICE WHERE IT SAYS 'CITY'. HERE YOU MUST WRITE IN THE NAME.... (Mention the name of the city and spell it for them. Rural teachers will please mention the name of their county and have the pupils insert it in this space.)

"NOW NOTICE THE LAST EMPTY SPACE 'DATE'. WRITE IN THE PRESENT DATE __, __, 192_. (Give them the month, the day of the month, and the year)

"NOW LAY YOUR PENCILS DOWN. LISTEN CAREFULLY. TO DO WELL IN THIS TEST YOU MUST DO JUST ONE THING AT A TIME.

"TURN THE FIRST PAGE AND NOTICE THIS LIST OF TOYS AND GAMES ON PAGE 2. (Hold up a sample play quiz and point to page 2) IN A MOMENT WE ARE GOING TO READ THROUGH THIS LIST. DO NOT START WORK YET. WHEN YOU READ THROUGH THE LIST DRAW A CIRCLE AROUND EACH NUMBER THAT STANDS IN FRONT OF ANY TOY THAT YOU HAVE BEEN PLAYING WITH, OR ANY GAME THAT YOU HAVE BEEN PLAYING, OR ANYTHING ELSE THAT YOU HAVE BEEN DOING, DURING THE PAST WEEK, JUST BECAUSE YOU WANTED TO. DO IT LIKE THIS:— (Write the two following phrases on the blackboard. Write the digits also)

1. Riding on a warship. 2. Going up in an airplane.

Continue to read the capitalized words:— "IF YOU DID THOSE THINGS DURING THE PAST WEEK, AND IF YOU LIKED TO DO THEM, DRAW CIRCLES AROUND THE NUMBERS IN FRONT OF THEM, LIKE THIS;— (Draw circles around the digits, thus:—

1. 2.

"BUT IF YOU DID NOT DO THOSE THINGS DURING THE PAST WEEK, OR IF YOU DID THEM, BUT DID NOT LIKE DOING THEM, DO NOT MAKE ANY CIRCLES."
"BE CAREFUL NOT TO MAKE ANY MISTAKES, BUT IF YOU DO MAKE A MISTAKE, DO NOT ERASE. JUST DRAW A LINE THROUGH THE MISTAKE LIKE THIS:— (Draw a line through the circles on the blackboard, thus:—)

- Riding on a warship.  
- Going up in an airplane.

Continue reading the capitalized words:— "DO NOT THINK OF THE THINGS THAT YOU HAVE BEEN WATCHING OTHER PEOPLE HAVING FUN AT. * THINK OF JUST THE THINGS THAT YOU HAVE BEEN HAVING FUN DOING. DO NOT REPORT ANY OF THE THINGS THAT YOU DID A LONG TIME AGO. REPORT THE THINGS THAT YOU HAVE BEEN DOING DURING THE PAST WEEK. DO NOT PUT JUST THE THINGS THAT YOU HAVE BEEN DOING HERE AT SCHOOL. YOU MUST PUT DOWN THE THINGS THAT YOU HAVE BEEN DOING AT SCHOOL, AND AT HOME, AND EVERY PLACE ELSE THAT YOU HAVE BEEN HAVING ANY FUN.

"IN A MOMENT I AM GOING TO ASK YOU TO READ THROUGH THE ENTIRE LIST. MAKE THE CIRCLES THE FIRST TIME YOU READ IT. IT WOULD TAKE TOO MUCH TIME IF YOU WERE TO READ THROUGH THE LIST AND MAKE THE CIRCLES AFTERWARD.

"WHENEVER YOU FIND THAT YOU HAVE FORGOTTEN TO MAKE A CIRCLE THAT YOU SHOULD HAVE MADE, GO BACK AND MAKE IT.

"WHEN YOU GET TO THE PLACE WHERE IT SAYS 'PART B', LAY YOUR PENCILS DOWN SO THAT I CAN TELL WHEN ALL HAVE FINISHED. IT WILL BE ALL RIGHT FOR YOU TO READ ON AFTER YOU GET TO 'PART B', BUT DO NOT DO ANY WRITING. YOU MIGHT MAKE SOME MISTAKES.

"IS EVERYBODY READY? YOU MAY START READING THE LIST RIGHT NOW."

* 'Watching athletic sports' (No. 199) is plainly an exception to this rule. Say nothing about exceptions unless the question is raised.
PART B

When the pupils are ready for Part B, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART B'? AND DO YOU SEE THESE EMPTY SPACES? (Point to them) NOW THINK OF ANY TOYS THAT YOU HAVE PLAYED WITH, OR ANY GAMES THAT YOU HAVE PLAYED DURING THE PAST WEEK, WHICH ARE NOT PRINTED IN THE LIST. IF YOU CAN THINK OF ANY, WRITE THEM IN THE EMPTY SPACES OF PART B." (Eating, sleeping, etc., are not to be written in Part B.)

PART C

When the pupils are ready for Part C, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART C'? AND DO YOU SEE WHERE IT SAYS 'I DID........DIFFERENT THINGS DURING THE PAST WEEK JUST BECAUSE I WANTED TO'? (Point to the proper place) NOW GO BACK OVER THE ENTIRE LIST AND COUNT THE NUMBER OF DIFFERENT THINGS THAT YOU DID DURING THE PAST WEEK AND WRITE THE NUMBER IN THIS EMPTY SPACE. (Point to the proper place and allow time for counting)

After the preceding task has been finished say to the pupils:— "NOW LISTEN CAREFULLY. I WANT YOU TO PRINT THE LETTER 'A' IN FRONT OF EACH THING THAT YOU DID ONLY WHEN YOU WERE ALONE OR WITH GROWN-UPS.

"FOR EXAMPLE, LOOK AT ACTIVITY NO. 26, 'RIDING IN AN AUTO'. OF COURSE, IF YOU DID NOT GO AUTO RIDING DURING THE PAST WEEK YOU MUST NOT PRINT ANYTHING. IF YOU WENT AUTO RIDING EVEN ONCE DURING THE PAST WEEK WITH ONE OR MORE PEOPLE, OTHER THAN GROWN-UPS, YOU MUST NOT PRINT ANYTHING. BUT IF YOU WENT AUTO RIDING ONLY ALONE, OR WITH GROWN-UPS, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 26.

"NOW LOOK AT ACTIVITY NO. 40, 'GOING TO THE MOVIES'. IF YOU DID NOT GO TO THE PICTURE SHOW AT ALL DURING THE PAST WEEK DO NOT PRINT ANYTHING. IF YOU WENT TO THE PICTURE SHOW EVEN ONCE DURING THE PAST WEEK WITH ONE OR MORE PEOPLE, OTHER THAN GROWN-UPS, DO NOT PRINT ANYTHING. (As here used 'Going with them' means going with them all the way, or any part of the way, to or from the show) BUT IF YOU WENT TO THE PICTURE SHOW ONLY ALONE, OR WITH GROWN-UPS, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 40.

"NOW LOOK AT ACTIVITY NO. 200, 'HELPING SOMEBODY WITH HIS WORK'. IF YOU HAVE HELPED ANY BOY OR GIRL DURING THE PAST WEEK DO NOT PRINT ANYTHING IN FRONT OF ACTIVITY NO. 200. IF YOU HELPER SOME GROWN-UP PERSON, PRINT THE LETTER 'A' IN FRONT OF ACTIVITY NO. 200.

"NOW GO THROUGH THE ENTIRE LIST OF ACTIVITIES AND PRINT THE LETTER 'A' IN FRONT OF EACH THING THAT YOU DID ONLY WHEN YOU WERE ALONE OR WITH GROWN-UPS.

When the pupils have finished the preceding task say to them:— "NOW COUNT THE NUMBER OF 'A's AND WRITE THE NUMBER IN THE NEXT EMPTY SPACE. (Point to it and allow time for counting)
PART D

When the pupils are ready for Part D, say to them:— "NOW DO YOU SEE WHERE IT SAYS 'PART D'? AND DO YOU SEE WHERE IT SAYS 'I LIKED NUMBER......BEST OF ALL. I LIKED NUMBER......NEXT BEST. I LIKED NUMBER......THIRD BEST? (Point to these three sentences) WHICH THREE THINGS DID YOU LIKE BEST TO DO? LET US GO BACK AND LOOK AT ALL THE PLACES WHERE WE HAVE PUT CIRCLES. PUT THE NUMBER OF THE ONE THING THAT YOU LIKED BEST IN THIS FIRST EMPTY SPACE. (Point to it) PUT THE NUMBER OF THE THING THAT YOU LIKED NEXT BEST IN THIS SECOND SPACE. (Point to it) AND PUT THE NUMBER OF THE THING THAT YOU LIKED THIRD BEST IN THIS THIRD EMPTY SPACE. (Point to it) IF YOU ARE NOT SURE WHICH THINGS YOU HAD THE MOST FUN DOING, JUST GUESS."

After this has been completed say to the class:— "NOW DO YOU SEE THIS LAST LINE WHERE IT SAYS 'NUMBER.......TOOK UP MORE OF MY TIME THAN ANYTHING ELSE'? NOW THINK OF THE ONE THING THAT TOOK UP MOST OF YOUR SPARE TIME AND PUT ITS NUMBER IN THIS LAST EMPTY SPACE. (Point to it) IF YOU ARE NOT SURE OF THE ONE THING THAT TOOK UP THE MOST OF YOUR SPARE TIME, JUST GUESS."

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