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XXXII. AN EXPERIMENT IN AUTOMATIC SPELLING

Herbert Patterson

Oklahoma Agricultural and Mechanical College.

On October 5, 1922, an experiment was made in the Stillwater Public Schools, Stillwater, Oklahoma, to determine the relative accuracy of automatic spelling and rational spelling.

The experiment was conducted by advanced students in the School of Education of Oklahoma A. and M. college, the work being done in connection with a course in Educational Measurements. A total of 286 children in grades 4, 5, and 6, were given two types of spelling exercises, the one exercise being in rational or deliberate spelling and the other exercise being in automatic or subconscious spelling.

In order to make the experiment as scientific as possible, it was attempted to keep constant all factors entering into the situation, with the single exception of the variable being measured, namely, the method of spelling. The same person gave both exercises. The same fifty words were used in both exercises. The exercises were given at approximately the same time, one following the other almost immediately, a brief rest period of five minutes intervening. In order to cancel the influence of fatigue, and that of increasing familiarity with the situation, the exercise in automatic spelling preceded that in rational spelling in five of the rooms where the experiment was being conducted and in the other five rooms the exercise in rational spelling preceded that in automatic spelling. While the same fifty words were spelled in the second exercise as in the first, no opportunity was allowed for learning to spell words during the five minute intermission between the two exercises.

Not only were the exercises given with the greatest of care,

but also the checking, compiling, and tabulating were so executed as to remove any suspicion of unreliability. All who took part in the experiment were interested in the accuracy of the results.

The exercise in automatic spelling was Contest 15 in Patterson's Thirty Contests in Spelling (published by Educator Supply Co., Mitchell, S. D.), and the exercise in rational spelling was the list of the same fifty words used as contest words in Contest 15, each word being pronounced twice.

The detailed results of the experiment are found in the following table.

Table I. A Comparison of Median Scores for Automatic and Rational Spelling; (Ten Classes With Total of 286 Pupils).

Grade	Number of Pupils	Median Score for Rational Spelling. (Percent)	Median Score for Automatic Spelling. (Percent)	Which Exercise Given First
4	32	73	68	Automatic
4	33	72	76	Rational
4	36	61	67	Rational
4	14	71	68	Automatic
5	19	86	84	Automatic
5	34	92	89	Automatic
5	31	94	96	Rational
6	29	94	94	Rational
6	30	95	95	Automatic
6	28	94	94	Rational
TOTALS	286	832	831	

An analysis of the above table shows that the medians for automatic and rational spelling are almost the same, being in fact identical for the three classes in grade 6. It also shows that there is a tendency for the medians to differ less as the grade increases, since the average difference for the fourth grade is 4.5%, for the fifth, 2.3%; and for the sixth, 0%.

There is one generalization which can not be neglected. A careful study of the above table shows that the higher median is always that of the exercises which came second. The only exception to this is in the three classes in grade 6, where the medians are

identical. In the seven classes in grades 4 and 5, the automatic spelling exercise came first four times, and each time the median score for rational spelling was slightly higher. In the same classes, the rational spelling exercise came first three times, and each time the median score for automatic spelling was slightly higher. This might indicate that the pupils in grades 4 and 5 were more influenced in their spelling by the general newness of the situation than they were by the kind of exercises used. It also shows that fatigue was not an important element in the experiment.

While the data are meager, they tend to substantiate the conclusions reached in the Cleveland Survey, namely, that there is very little difference in spelling accuracy due to using either the rational or automatic method. This is contrary to the rather common notion that automatic spelling is less accurate than rational.

XXXIII. THE MAGNETISM OF THE MAP

Sophie Ravitch Altshiller Court

Norman, Oklahoma.

A French writer once said: "Le temps le mieux employé c'est celui qu'on perd,"—"The time best spent is the time we waste." This is true in many respects, but the truth of this saying is especially important when applied to children. We map out the day's schedule for them and we dole out to them so much for arithmetic, so much for reading, so much for physical exercise, so much for recreation. And all the time the child tries to break these bonds, to do something else, to "waste time," as we call it. Yet, watch a thoughtful, intelligent, active, normal child during the moments which it has for itself legitimately or illegitimately. As a rule it learns during this "wasted" time more than during the time of imposed study. Unfortunately, there are so many definite facts, the knowledge of which our complicated life demands imperatively, that we cannot leave the children to gather their information in a hap-hazard way and must teach them systematically.

But our children are comparatively free before school age. It is then therefore that we can reap a rich crop of psychological truths by observing their natural inclinations, the methods they use in getting acquainted with the outer world, the problems they become interested in, and the ways in which they solve them. Thoughtful, bright, precocious children are of special value from this point of view, because they approach in their pre-school age problems and subjects which we find necessary to bring before other children at a later age.