

more common our communities may grow in organization from the standpoint of proper home management.

Our grocery stores ought to use home economics graduates. A woman trained in home economics could run a grocery store efficiently as well as serve her community in a large capacity. Housewives often do not know what or how to buy. They find themselves using the same food combinations day after day until homemaking becomes drudgery. A home economics specialist could train the harrassed housewives in menu-making and marketing. The right kind of advertising and window displays would serve a twofold purpose; the store would secure trade in proportion to the service rendered. As the work grew, a rest room and finally classes for the woman "who can't cook or keep accounts" would become a part of the grocery store run on a home economics basis. Here lies a great opportunity for commercialized home economics which would carry out the idea of the community-maker.

This is merely a suggested list of occupations in which the trained home economics graduate may exert her energies for her community. A commercial development of homemaking in the hands of scientists puts such commercialism on a new basis. Above the usual pecuniary interests in commercial life stands that greatest of all opportunities—service for the community. The combination of that mystery, "profit and loss," with the ideal of service leaves nothing to fear in the development of commercial home economics in Virginia.

GRACE HARVEY HEYL.

ECONOMICAL DISTRIBUTION OF TIME AMONG WORDS OF THE SPELLING LESSON

Recent investigations of Thorndike, Buckingham, Ayres, and others, have revealed the fact of the unequal difficulty of words in spelling. They have gone further and used

this fact for the construction of standard tests, scores, and scales for measuring ability in spelling. As has been generally true with the movement toward standardization and scaling, the proponents of this work in spelling have been more concerned with the work of the principal, supervisor and superintendent, than with the work of the teacher. Yet it would seem that the fact of the unequal difficulty of words, which has deserved the attention of such eminent men in the profession, may have some significance for the teacher as well as for the superintendent. Some such reasoning as this, together with the discovery of strikingly poor results in the work that he had just taken up, led the author to undertake the overhauling of the work in spelling. The device given here is one of the results of this work.

Schoolroom experience and experimental study show that any plan for taking account of the unequal difficulty of words in teaching spelling, to be practical and effective, must not take more time than is usually devoted to spelling, and it must be based upon the actual difficulty of the words for a particular class.

With these specifications in mind, the following plan was worked out: On Friday preceding the week in which the words are to be taught, a preliminary test of the words for the week is given. The teacher spells the words back to the pupils. Each pupil corrects his own or another pupil's paper. The pupils are told that they are not to receive a mark on the test, so that there is no motive for cheating. (The examination of a number of sets of papers soon showed that this is true. Such errors as were made, were made in making the count.) When the papers are corrected the teacher asks for a show of hands on "How many missed the first word, *courage?*" The second word, *careful?*" Etc. She records after each word the number of times it was misspelled. Thus the work for the week is outlined. By comparing these figures with the figures of the first row, showing the number of pupils present, the teacher gets some idea of the degree of difficulty of the word; by comparing these figures she gets an accurate notion of the relative difficulty of

This is a report of work done by the author several years ago when he was principal of the Hart School, Stamford, Connecticut.

the words. This shows that some words may be omitted from instruction, others may be treated lightly, while others should receive the greater part of the attention of the class. In brief the plan shows the teacher how the time of the class should be distributed in each day's lesson. Following the daily lesson a test is given and the errors are entered in the appropriate column. If the teaching has been well distributed, there should be about the same number of errors per word. If a word is misspelled a large number of times it should be carried over to the next day's lesson, and treated as before. On Friday a review of all the words of the week is given, and the number of mistakes are entered as before. Finally, the plan provides for a test after a longer interval of time. The purpose is to determine the frequency with which reviews should occur. The intervals may be varied to suit the grade and class. Intervals of one month and of six weeks were tried.

All of this description will be made clearer by a study of the sample lesson plan and record sheet given below.

TABLE I
SPELLING PLAN AND RECORD SHEET
*Spelling Plan and Record Sheet. Grade VI,
Hart School, Helen A. Brown, Teacher.*

	Week of March 14	Preliminary Test Friday	Monday Feb. 14	Tuesday	Wednesday	Thursday	Friday	Review Test March 3
No. present	44	40	40	40	40	40	40	43
courage		12	1				0	1
careful		3	0				0	2
which		1	0				0	0
their		3	1				0	3
there		2	1				1	2
business		10	2				2	1

service	18	1	1	3
servant	16	0	1	1
faithful	19	0	1	1
many	2	0	1	0
friend	7	0	2	0
since	6	0	0	2
explanation	21	4	2	4
attention	16	3	2	2
always	3	0	3	2
write	4	1	0	0
writing	18	2	0	0
once	1	0	0	0
declaration	36	3	1	4
description	20	2	2	10
vacation	20	1	0	3
doctor	17	0	0	2
often	14	0	0	3
automobile	22	5	0	2

The plan shows the number of times each word was misspelled in the preliminary test and the number of errors for each word after the daily lesson, the weekly review on Friday, and the monthly test (without study) four weeks later. There are variations, in daily lessons, in the number of errors per word, of 29 points, between 7 and 36 points. Each word was brought to a high degree of learning as shown in the weekly and daily tests. The monthly test shows a slight decrease in the number of errors, with the exception of *description*. The large number of errors there, 10, may be due to some incidental factor, as misunderstanding the word as pronounced.

Results in the Use of the Plan

During two years we experimented with the plan in a general way. The record of achievement is as shown in the following table:

Grade	November 4, 1915		January 26, 1916		April 3, 1916		June, 1916		December, 1916	
	St.—88	Dev.	St.—70	Dev.	St.—92	Dev.	St.—94	Dev.	St.—84	Dev.
IIIB	15	58	38	32	61	31	75	19*	47	37
IIIA	32	41	41	29	61	31	82	12*	53	31
IVB					67	25*			43	41
IVA	58	30	50	20	84	8			61	21
VB					81	11			59	25
VA	29	37	70	0*	84	8			67	17
VIB					74	18			63	21
VIA	56	32	65	5*	81	11			73	11
VII B					70	22			69	15
VIIA	74	14	51	19	89	3			77	7
Average		35		18		17				23

St.—Standard; Sc.—Score; Dev.—Deviation; * indicates results after the plan was followed.

On November 4, 1915, a test of fifty words taken from the Ayres scale was given, to get some notion of our comparative rating in spelling. As shown in the first column of the table, this test revealed a rather deplorable deficiency in spelling achievement. The grades fell from 14 to 58 points below the standards for the grades, with an average deficiency of 35 points. The low scores were not due to poor teaching necessarily. The school was newly organized, and ninety per cent of the pupils were foreign children who had extreme difficulty with English, and who for the most part spoke a foreign language, usually Italian, in their homes. During the next few weeks a study of the spelling conditions were undertaken. It resulted in the elimination of some of the uncommon words from the speller, the suggestion of the plan of teaching and checking here described, and some changes in methods of teaching. The two changes of importance were the first two mentioned. The plan was left open for adoption by the teachers, and two teachers agreed to try it for ten weeks. A second test similar to the first was given on January 26. To the surprise of probably all concerned, the two teachers who used the plan came out far ahead of the rest. As shown by the starred figures in the second column of the table, one teacher reached the standard, and the other fell just 5 points below, while the average of the school was 18 points below the standard. A similar test was given in April before which the IVB teacher had taken up the use of the plan. Then the third grade teachers, who fell furthest below the standard, tried out the plan for the next eight weeks with results indicated under June 1916. The beginning of the term 1916 was delayed because of an epidemic of small pox, and considerable confusion resulted. The spelling test was finally given on December 16. It was found that only two of the teachers had been using the plan consistently from the beginning of school that fall. The results show comparatively substantial gains as compared with the standing of the school a year previous. The average rating had been raised from 35.3 to 22.6 below standard. It is understood of course that the words of the scale were not studied

as such. In the main the prescribed course of study was followed.

While the results of later tests are not as striking as the improvement after the first test in the case of the fifth and sixth grades, where the plan was first used, led us to hope, yet the results seemed to be sufficiently favorable to warrant us to continue our work, and the type of work described above became a common feature of the spelling instruction. The various elements entering into the situation were not sufficiently controlled to warrant calling the work a scientific experiment. It is offered as a suggestive type of procedure that gave positive results in one instance.

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AN IMPROVED COMPOSITION SCALE

The appearance of the Hudelson English Composition Scale (First Revision)¹ will be welcomed particularly by teachers of English composition who have already made use of the scale as it appeared in the second volume of the Virginia Education Commission's report on the educational survey of 1919. The Hudelson scale was also published in 1921 by the World Book Company in a fifty-page pamphlet.

The chief defect of the pamphlet and the circumstance which militated against its general use was the arrangement of the sixteen samples in the scale each on a separate page. To use this composition scale, then, it was necessary for the teacher matching compositions to leaf through the book constantly or else depend on his memory of the various samples.

Since one of the chief values of a composition scale for use in scoring compositions is to reduce to a minimum the subjective element in the grade, it appeared to some that the mechanical process of turning pages operated to defeat the purpose for which the composition scale is intended.

In the First Revision, just published, this defect has been cared for by an arrangement

1. World Book Company, Yonkers, New York, 25 cents.