

number series, found that the memory span is strictly limited, the limit for pupils in the Public Schools being six. Some tests of my own, with nonsense combinations of letters exposed for a moment to the eye, indicate that the visual span is quite as limited as the auditory. Nine letters seemed to be the maximum number which pupils in the High School grades could span, when urged not to group. Nor does it necessarily follow, as Miss Wyckoff's tests seemed to show, that those who have the best visual grasp are the best spellers, but rather those who individualize the letters, take them in groups, recognize and pigeon-hole the fact that certain letters spell a word.

The errors of group (4) consist in a transposition of the order of letters. This transposition may occur when a word is quite well known for the reason that in writing the attention runs ahead of the hand. The fourth or fifth letter may be present in mind when the second or third is about to be written and may be put in its place. Then the omitted letter is recalled and is put in the wrong place. But these errors are probably due more frequently to defective mental image. How does this transposition of order occur? The explanation seems to be that the eye, in looking at a word, is not confined to one order, but may pass both backwards and forwards. It should, therefore, be carefully checked by the ear. It may be said that the pupil inevitably follows the sound, silently pronouncing the word as he spells, but this is by no means certain. This habit cannot be left to chance. The fact that so many pupils in our schools to-day have so little idea of aiding themselves by sound can only be attributed to the theory that spelling should be learned by sight and transcription and tested only in writing.

The errors of group (5) resemble those of group (4) in that they consist in a transposition of order; they differ in that the pronunciation is unchanged. They seem at first sight to be clearly the fault of the eye, but on closer examination this is by no means certain. They are probably due to an overlapping of visual images. The words have been seen in juxtaposition and confusion has arisen. The retina is like a photographic plate, and if a number of objects, differing only slightly in details, is presented in succession, the result is a blurred image or a composite photograph. Once this confusion has arisen it is very difficult