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Better Than Nothing, But...

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IT is not generally realized that five percent of our school children have defective hearing, that in every classroom from one to three children have some degree of hearing loss. (1) Dr. Horace Newhart writes that "the surprisingly high incidence of significant hearing impairment among school children and the great benefit resulting from early detection, when followed by prompt corrective care, have been demonstrated in recent years by the mass-testing of hearing of millions of pupils by *modern methods.* (italics mine) It should be emphasized that the objective of these tests is to disclose not only those who already have recognized or suspected hearing handicaps, but what is of greater importance, to discover the larger number of pupils who have slight, often subjectively unnoticed but potentially handicapping, hearing deficiencies, in order that they may be given corrective medical care and educational adjustment at the time in life when treatment is most effective. Thus the early discovery of hearing deficiencies during the school age is the first step in the prevention of avoidable hearing impairment on a comprehensive scale." (2) The public schools of the United States thus have a duty to perform, that of providing *adequate* hearing tests for every school child. The schools of the state of Washington, certainly, should be no exception.

While the majority of parents, teachers and administrators are fully aware of the importance of a program of hearing conservation in the schools and readily endorse one, I am convinced that they are not aware of the serious inadequacies of the method of testing the hearing ability of school children that is generally used throughout the state of Washington.

WHILE doing in-service work last year, I came to the conclusion that the most widely used method of testing children's hearing in this state is either the so-called "whisper" test or the "watch tick" test. The "whisper" test is given in this way: The child is asked to stand some distance away with his back to the examiner. The examiner then whispers some command or some question to the child. If the child either follows the command or answers the question, he passes the test. The "watch tick" test is somewhat similar. The child is asked to close his eyes or look in the opposite direction while the examiner holds a watch somewhere near his ear. If the child hears the watch ticking, he passes the test. However, if a child does pass, let us say the "whisper" test, the examiner knows only one thing, and herein lies the criticism of such tests. The examiner knows that at that distance (distance usually being a poorly controlled factor in the test) and at that volume (a factor almost impossible to control in testing of this type) the child hears high-frequency sounds. The examiner knows that and that only. The test does not show whether the child can hear the frequencies of the sounds involved in vowels, semi-vowels and many consonants; nor does it tell us, when a child fails the test, how much of a hearing loss is present even for the sounds it does test.

THE "modern methods" of testing mentioned in Dr. Newhart's article are those in which audiometers are used. There are two recommended types of audiometer testing, the group audiometer test and the individual audiometer test. Since the group test is used only for screening out individuals that should be tested with the individual audiometer test, I shall discuss the value of individual audiometer testing only.

The individual audiometer test is one that enables us to determine a subject's ability to hear pure tones at all of the sound frequencies used in speech. That is, by means of an individual audiometer test we can discover whether the subject is unable to hear sounds of low frequencies only or sounds of high frequencies. Furthermore, we can determine how much of a loss in hearing is actually present. Neither of these very important diagnoses can be made with the "whisper" or "watch tick" test. For these reasons the audiometer test is widely accepted as the most adequate hearing test that can be used on a statewide basis.

Let us now ask what difficulties can be anticipated were the schools of Washington to adopt the audiometer test as the routine hearing test. The main difficulty is a financial one. Audiometers cost approximately three hundred dollars, just prior to the war. However, were all the schools in a given county to contribute toward the purchase price, the cost is not a prohibitive factor. The cost of upkeep for individual audiometers is negligible. Furthermore, it has been found that more hard-of-hearing children repeat grades than do children with normal hearing; and the estimated costs are less to give audiometer tests and even provide lip reading than to re-educate grade repeaters. (3) The cost of audiometer testing should not prevent its adoption.

Another possible difficulty will be pointed out by the school nurses. They are not usually enthusiastic about the prospect of giving routine audiometer tests to all of the school population until it is pointed out to them that the administration of the test does not demand a skilled technician. Any adult can quickly learn how to give the test, and with some practice he can "screen" a child with the individual audiometer in thirty-five or forty seconds. (Students warranting a more complete examination will take more time, of course, but the same equipment serves for both tests.) Indeed, the adoption of audiometer testing would make it possible for schools to lighten the examining load of the school nurse by doing that testing for her. Therefore, audiometer testing cannot be ruled out on the basis of a necessity for specially trained personnel to administer the tests as is frequently believed.

Well-informed medical men are beginning to cooperate in school audiometer testing programs, for there is "strong evidence that early detection of slight hearing impairments, followed by prompt medical treatment, can prevent or ameliorate approximately ninety per cent of the hearing losses or children" (4) These figures sharply point up the need for adequate hearing conservation programs in our schools.

IN the April, 1945 issue of our *Washington Education Journal,* Joe A. Chandler called our attention to the passing of bill S-49 by both houses. This bill "appropriates $20,000 for employment of an otologist in the Department of Health to work with the Department of Education in the schools of the state to aid the hard of hearing." It is hoped that the appointed otologist will be instrumental in improving the methods of testing the hearing of our school children, and it is further hoped that teachers and administrators will be cognizant of the importance of proposed changes and will be instrumental in bringing those changes about.

The hearing tests usually given, at the present time, are probably better than nothing, but that is all that can be said in their defense.

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