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READING ACHIEVEMENT OF THE DEAF: ANOTHER LOOK

Independent Study

by

Dorothea Baker

Second Semester 1971-1972

Up to the present, research dealing with the reading achievement of deaf children has yielded only negative, pessimistic results. Deaf children on the average have been described as being unable to achieve beyond a third- to fourth-grade reading level (Wrightstone, et al.), showing little improvement beyond primary age. Wrightstone, Aronow, and Muskowitz, in a study of 773 school programs for the deaf, found that the average gain in reading achievement between the ages of 10 and 16 was less than a year (0.8 or 8 months) in grade level, with an average reading achievement of grade level 3.5 (median 3.4) for the 16-year-olds.

Since the reading achievement of deaf students is one important indication of their linguistic competence, these results are especially damning to those involved in the education of the deaf. Since the deaf do not lack ability to learn (~~in terms of~~ intelligence - see Myklebust), their teachers must lack something in ability to teach, especially to teach language. Can more be achieved, given more effective language-teaching? Does an effective program exist at the Central Institute for the Deaf?

Purpose

The purpose of this study is to examine the reading achievement of former CID (Central Institute for the Deaf) students in comparison with the results of Wrightstone, et al., to determine the effectiveness of the CID program and the possibilities of improvement in the reading achievement of the deaf.

Subjects

The following criteria governed the selection of subjects:

1. All former CID students with five or more consecutive sets of American School Achievement Test scores in the 10-16 age range were selected;
2. From this group, those with additional handicaps other than deafness were excluded, including those with physical handicaps, cerebral palsy, and extreme language learning difficulties - some in this category having normal or near normal hearing.

Through this procedure, 132 subjects were selected. Of the 132,

92 were CID graduates; the other forty were discontinued for a variety of reasons, twenty by parental decision (father transferred, moving, financial reasons, etc.) and twenty by CID recommendation (family problems, vocational training, private school, tutoring).

The intelligence of the subjects ranged from 74 to 164; the mean IQ was 115. Although this appears to be a bit high, one must keep in mind that CID does not accept mentally retarded children; therefore, there are no low scores to balance the high scores in the sample. The range makes it obvious, however, that the students involved did not, on the whole, possess superior intelligence.

Tests

The American School Achievement Tests have two subtests involving reading, Sentence and Word Meaning and Paragraph Meaning. The mean of the scores on these two subtests is the total reading score. The grade level equivalents are stated in the number plus a decimal, the number standing for the grade or year and the decimal representing the number of months toward the next grade, based on a ten month school year. Thus a 3.9 grade level means one month short of fourth grade.

The tests were administered by a psychologist or psychometrist, someone not involved in the teaching of the children.

Procedure

Central Institute for the Deaf does not keep students beyond age 16, so that many students graduate at 14 and 15 (to attend public junior high and high school). Since many students graduate before age 16 and many students also come to CID after age 10, the study of the entire 10-16 age range, involving seven sets of scores, was found unsuitable for the sample involved. Instead, as stated above, all students with five tests within that range were studied in terms of their last five tests for improvement over the five test range and for each year within the range. Table 1 shows the age range and mean age per test for both groups.

AGE RANGE AND MEAN CA PER TEST

	<u>Test 1</u>	<u>Test 2</u>	<u>Test 3</u>	<u>Test 4</u>	<u>Test 5</u>
range	9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
Graduates					
MCA	11-2	12-1	13-3	14-3	15-2
range	9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
Total Group					
MCA	11-1	12-1	13-3	14-1	15-2

TABLE 1

As can be seen in Table 1, both graduates and total groups had the same age range for each test, although there were variations in two of the mean CAs out of the five tests for the two groups (Tests 1 and 4).

Results

Graph 1 shows the improvement of both graduate and total groups on the Sentence and Word Meaning subtest for all five tests; Graph 2 shows the improvement in Paragraph Meaning, and Graph 3 shows improvement of both groups in total reading achievement. As can be seen on examining these graphs, there was steady improvement over the four years (five tests) on both subtests and in total reading achievement. The graduate group attained a total score of 6.2 (grade level equivalent) on the 5th test; the total group attained somewhat less, 5.7 grade level. Improvement in the total reading achievement over the four-year period for the graduate group was 2.8 years (3.4 to 6.2) and for the total group was 2.4 years (3.3 to 5.7). When there was a difference between the two subtests, it was one to three months in favor of the paragraph meaning test.

Comparison with Wrightstone, Aronow, and Moskowitz

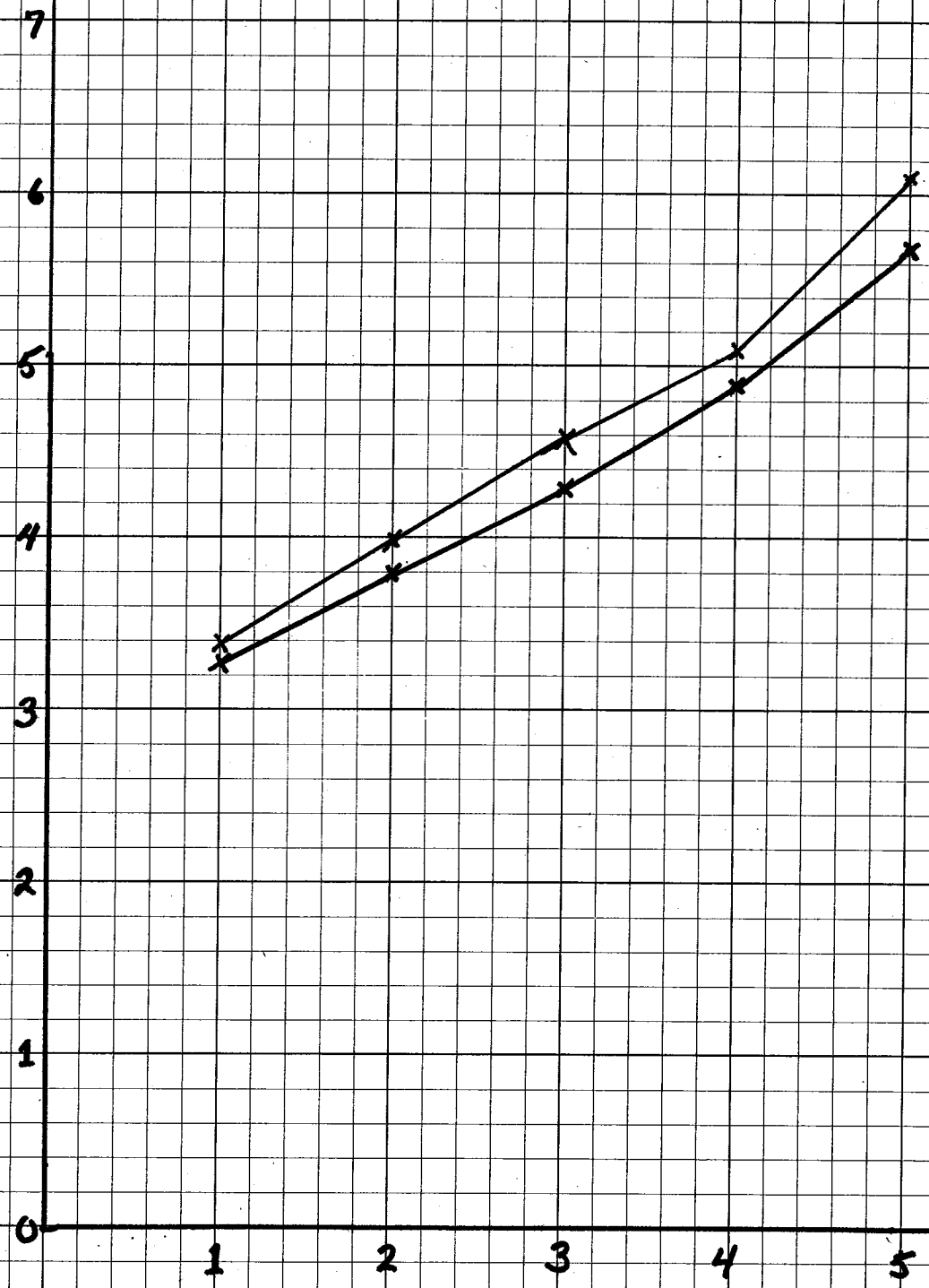
CID Graduates		Table 2 CID Total		Wrightstone, et al.	
AGE	MEAN GE	AGE	MEAN GE	AGE	MEAN GRADE EQUIVALENT
11-2	3.4	11-1	3.3	10½-11½	2.7
12-1	4.0	12-1	3.9	11½-12½	2.8
13-3	4.7	13-3	4.4	12½-13½	3.1
14-3	5.3	14-1	5.0	13½-14½	3.3
15-2	6.2	15-2	5.7	14½-15½	3.4
				15½-16½	3.5

Graph 1

Improvement in Sentence and Word Meaning (American School Achievement Tests)

— Graduates N=92
— Total Group N=132

Grade
Level



Tests

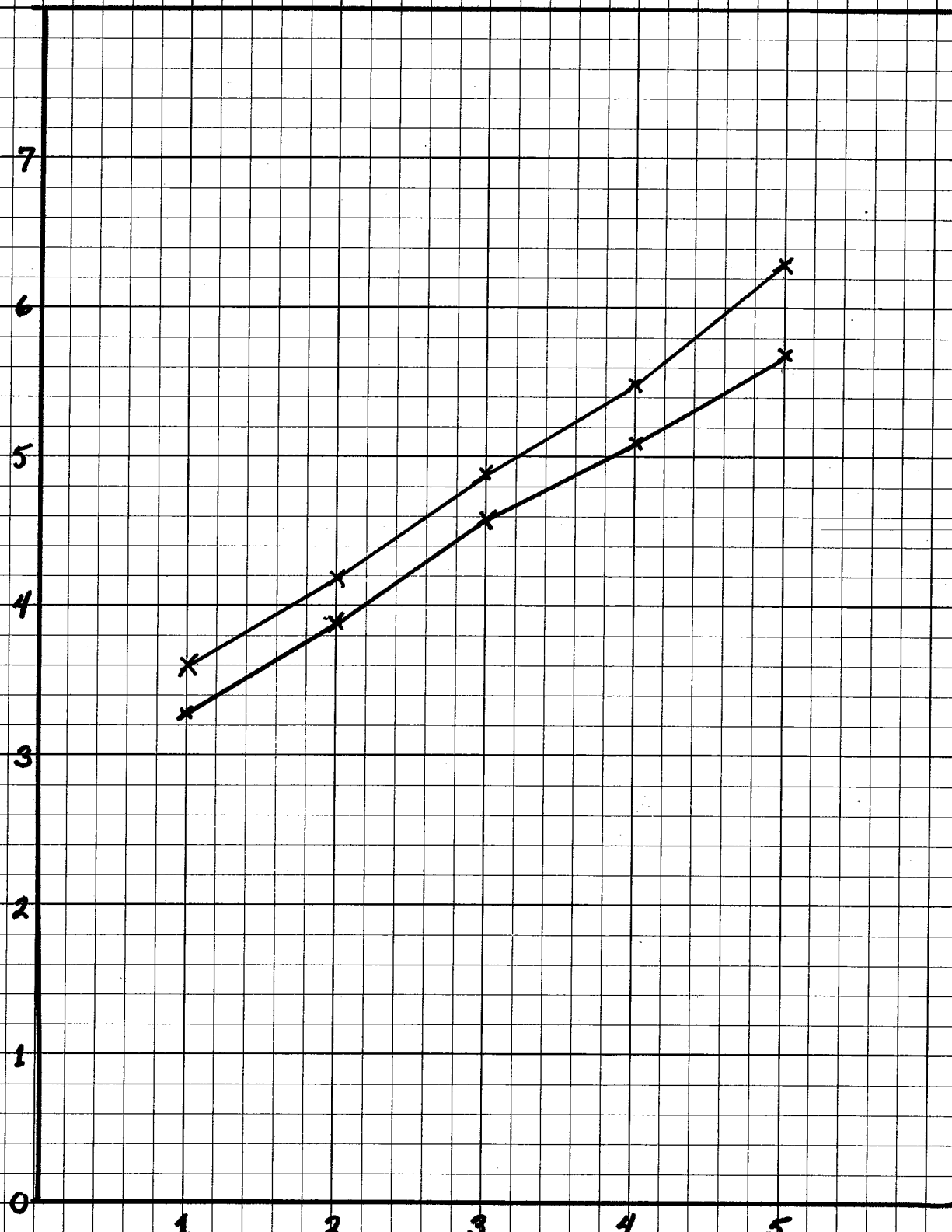
Age Range per test	9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
Mean Chronological Age	11-2	12-1	13-3	14-3	15-2
	11-1	12-1	13-3	14-1	15-2

Graph 2

Improvement in Paragraph Meaning Scores (American School Achievement Tests)

— Graduates N=92
— Total Group N=132

Grade
Level



Tests

Age Range per Test	G	9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
T	9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6	
Mean Chronological Age	G	11-2	12-1	13-3	14-3	15-2
	T	11-1	12-1	13-3	14-1	15-2

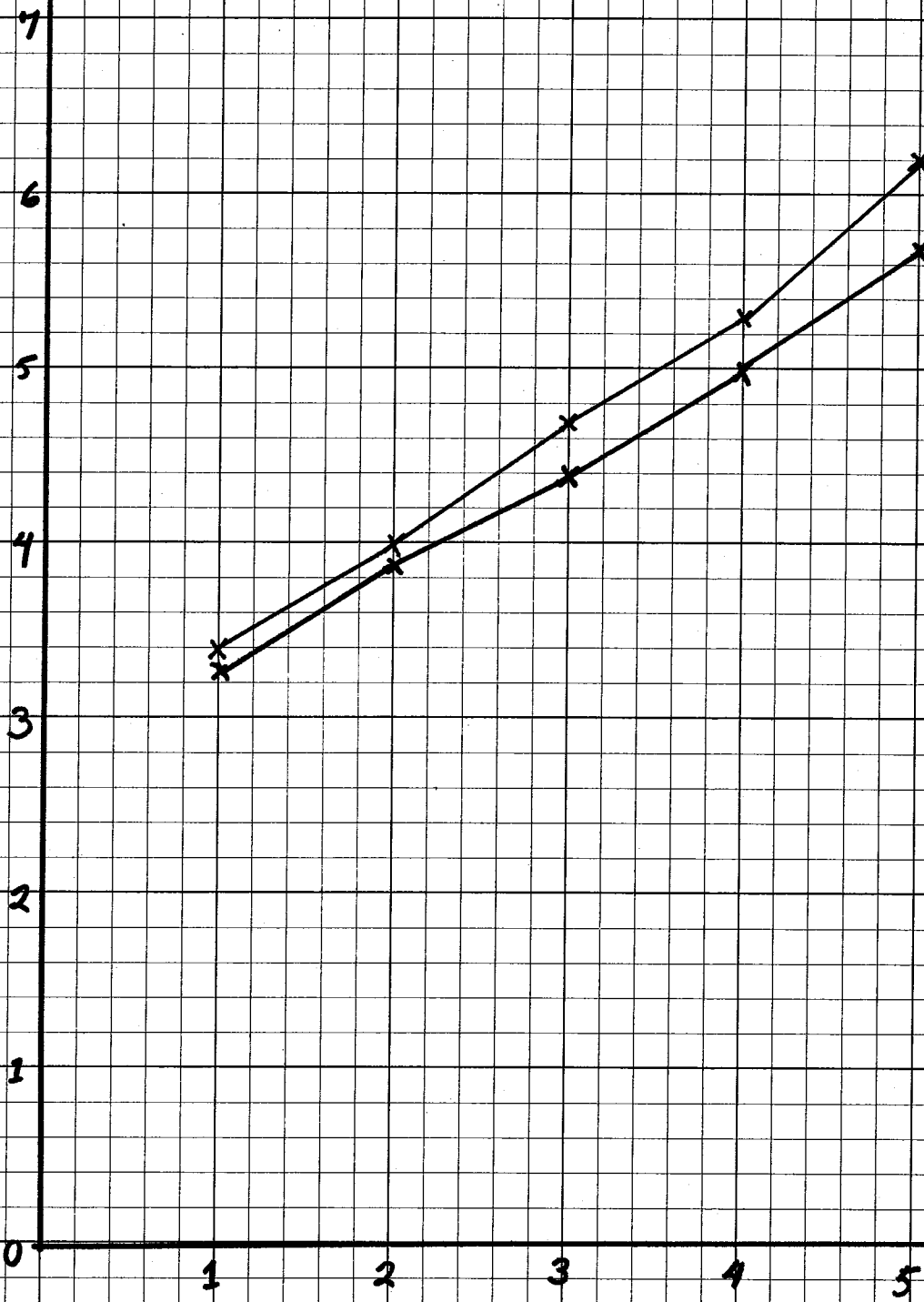
Graph 3

Improvement in

Total Reading Achievement (Sentence-Word Meaning and Paragraph Meaning - American School Achievement tests)

— Graduates N=92
— Total Group - N=132

Grade
Level



Tests

Age Range per Test	G 9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
	T 9-1 to 12-6	10-1 to 13-7	11-1 to 14-6	12-1 to 15-6	13-1 to 16-6
Mean Chronological Age	G 11-2	12-1	13-3	14-3	15-2
	T 11-1	12-1	13-3	14-1	15-2

As can be seen from the comparison on Table 2, the average achievement of the CID total group on the first test (3.3) equals the Wrightstone sample's results on its fourth test; the average achievement of the graduate group on the first test (3.4) equals Wrightstone's sample on its fifth test. Total reading improvement over the five tests for the graduate group was 2.8 and for the total group was 2.4, where the Wrightstone sample improved only 0.8 years over 6 tests. The total group on its fifth test achieved 2.3 grades higher than the Wrightstone sample on its fifth test; the graduate group achieved 2.8 grades higher.

Discussion

Since Wrightstone, et al., is often quoted as evidence in articles and books indicting "oral" education of deaf children (though the Wrightstone sample was never described as an "oral" sample), some commentary must be made in this direction. The children involved in this study, as students at the Central Institute for the Deaf, were taught language through the auditory-visual channels (amplification, auditory training, speechreading) and learned to communicate verbally, without signs or fingerspelling. The results of this study may certainly be considered evidence showing the effectiveness of the use of this mode of communication in teaching language and reading. It is not the use of this mode of communication which prevents deaf students from achieving their potential, but we will not be so hasty as to assume from this that the fault lies with the use of manual communication, whatever we consider its disadvantages. The problem as we see it is not so much one of mode of communication as it is a problem of poor teaching, and especially poor teaching of language.

As Furth states, reading achievement is one indication of the linguistic ability of a deaf child; low reading achievement signifies language problems, not just reading difficulties. The English language, as any language, is intricate and highly idiomatic. To effectively teach deaf children at any level and in any subject, a teacher must be fully aware of the language involved.

He must know what will give the students trouble, what language they need, and what language constructions will come up with particular activities, subjects, or topics. How many "teachers of the deaf" who know nothing about the language problems of the deaf or how to teach language

1. are called "oral" teachers simply because they don't know the manual alphabet or signs, or
2. are called "manual" teachers of the deaf because they do?

McCay Vernon says of low-achieving deaf persons, that "(t)hey represent a failure of education and other services and are testimony to a waste of human resources. With appropriate programs the achievement levels of deaf persons can be raised, to their benefit and to that of society." This study indicates that CID is an appropriate program. However, the full effect of the above quotation is lost in the emotionally-charged debate over mode of communication. Surely, as professionals we can be more objective. Can it be impossible to work together to share our ideas in improving our methods of teaching language? This study shows that much more can be done to improve the language and reading levels of deaf children; we do not claim that this is the best that can be done -- we hope and work for much more. Deaf children are only doomed to 3rd and 4th grade reading as long as we do nothing about it.

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