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Examination No 23

AN ENQUIRY

INTO THE FACTORS AFFECTING THE CHILD'S PREFERENCE

FOR SCHOOL SUBJECTS.

Candidate Number 23.
Laurence R. Middleweek

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102-351

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SECTION 1. P R E F A C E.

During a teaching career extending over twenty years in which the Writer has taught as a sole teacher, assistant in large town schools, headteacher of Maori school, as an itinerant instructor in Agriculture, and as an Education Officer with the Armed Forces, he has been struck by the frequency with which sweeping generalisations are made by many members of the teaching profession. Among these most frequently made are such as, "Boys like handwork better than do girls"; "Clever children prefer arithmetic to handwork."

Such statements have aroused his interest in the matter of the child's alleged likes and dislikes for school subjects. If such likes and dislikes do, in fact, exist, then it is felt that as teachers we should know what these are and to what extent they are common to, and among children for the following reasons:-

(i) As this thesis demonstrates later on, the child does well at the subject he likes, though of course the converse of this is true also. If we grant this, then we can also say that in general, the teacher should aim to present all his subjects in a manner attractive to the child. And, right here it is desired to stress the point that this is not a plea for "soft" education. The standpoint here taken up is that there are some subjects, in themselves means not ends, which are fundamental to the very existence of civilised society. These subjects must be taught at all costs - with the child's interest if possible, without it if necessary. But as Raymont says, "If we make keen interest our primary aim we shall secure effort in due course." (Raymont - "Modern Education - its Aims and its Methods" page 159.).

(ii) If we find a subject disliked by a very large percentage of children, it

behoves us as teachers to try to find out why this is so. It is felt that we should look first at ourselves. Do we like the subject? Do we like teaching it? Have we a thorough grasp of the subject matter? Is there something in the subject inherently distasteful to the child? If so, can this portion of it be dispensed with without detrimental effect on the subject? These and many other questions should be given serious thought. But, even if we can give an affirmative answer to the first three questions and a negative to the fourth, this does not mean that the subject can be neglected because the child shows no interest in it. The basic fact is that the child's interest is one factor only, important certainly, but not the all important determining factor.

(iii) If we know what subjects the child likes, then a careful analysis of these subjects may reveal the characteristics making the subjects popular. It is possible that such characteristics or method of treatment may be usefully transferred to the disliked subjects in an endeavour to arouse interest in these.

But there must be no guesswork about what subjects are preferred or disliked. Generalisations (frequently dependent on the speaker's own interests) must not be allowed to take the place of an accurate survey of the field. In addition to knowing what the child likes or dislikes, we need to know what part external factors, i.e. race, sex, intelligence etc., play in selecting the subjects.

This leads us to the formulation of the problems which this thesis attempts to solve.

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SECTION 11. THE PROBLEMS.

In brief, the problems may be stated under the following headings:-

(a) What school subjects do children like and dislike?

(b) What influence do the following factors have on their likes and dislikes:-

(i) Intelligence - do intelligent children show marked likes or dislikes? Are preferences exhibited at various intelligence levels?

(ii) Sex - do girls exhibit any preferences for school subjects not shown by boys?

(iii) Race - do Maori children show any differences from Europeans in their likes and dislikes?

(iv) Environment - does living in town or country have any influence on the likes and dislikes?

(v) Success - does success in school subjects influence the liking for those subjects?

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SECTION 111. METHODS OF SOLVING PROBLEMS AND DATA REQUIRED.

The method adopted for the solution of the problems was as follows:-

(a) Five hundred (500) copies of the Otis B test were purchased from the New Zealand Council of Educational Research and an additional One hundred and fifty (150) copies of the same Intelligence Test were donated by the headmaster of the Gisborne Central School. These were administered to Standard IV classes in the East Coast - Poverty Bay area schools. These will be ~~tested~~ listed later. By this means, a total of six hundred and fifty (650) children - three hundred and fifty (350) Europeans and three hundred (300) Maoris were ~~tested~~ listed. The number in excess of the four hundred (400) required were tested in order (i) to get a homogeneous age group, and (ii) as a means of giving teachers in the schools visited a picture of a whole of their Standard IV and not a part, thus ensuring their co-operation.

The Otis B was chosen as this has been standardised for New Zealand European children by Redmond & Davis. The problem of a new norm and standard deviation for Maori children will be dealt with in the following section.

In the final selection one hundred (100) European boys and one hundred (100) European girls, one hundred (100) Maori boys and one hundred (100) Maori girls were taken. Of the Europeans, fifty (50) boys and fifty (50) girls were selected from town and the same number from country schools.

(b) Six hundred (600) copies of the questionnaire on the following page were duplicated by Messrs. S. Grant & Co. Gisborne. These were administered to the children by the method described in Section 1.

NAME :- Allan Marongar... SCHOOL :- Patutahi.....

CLASS :- Std. 4.....

There are some things we like better than others. Here is a list of things to eat.

POTATOES
ICE CREAM 1
JELLY
LOLLIES
MEAT 2
RICE
HONEY 3
JAM
MILK

The one I like best I mark with a 1
The one I like next I mark with a 2
The one I like next best I mark with a 3

Now here are the subjects you learn at school. I want you to mark the one you like learning best with a 1, the one you like learning next best with a 2, the one you like next best with a 3. The one you hate learning I want you to mark with a cross, like this X.

READING
ARITHMETIC 3
SPELLING 2
DRAWING 1
WRITING
RECITATION
COMPOSITION X
HANDWORK
ENGLISH
SOCIAL STUDIES

Bad wording — suggests they must hate one

Q. .....

MARKS. 1. Wg. 2 b

2. G. 3 c

3. Ex. 1 a

X. Wt 4 d

(c) Access was obtained to examination registers in the schools where children were tested. A mean was obtained from the mid-year and final examinations held in 1947 and the marks noted by the side of the child's preferences and dislikes. Marks for 1948 were not available.

(d) Teachers of the classes were asked to fill in the questionnaire AFTER the class being tested had completed theirs.

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SECTION IV. DATA & METHOD DIFFICULTIES.

The following difficulties were encountered in selection of data and in the method of administration.

(i) The Maori Intelligence problem. When the sampling of this was tested it was found that the mode was about ninety (90) and the spread from sixty (60) - one hundred and twenty-five (125). The European mode was, as is to be expected for this carefully standardised test, one hundred (100) with a scatter from seventy-two (72) - one hundred and forty-five (145). See tables 1, 2 and graphs 3 and 4.

IQ. preliminary?

INTELLIGENCE DISTRIBUTION OF 200.

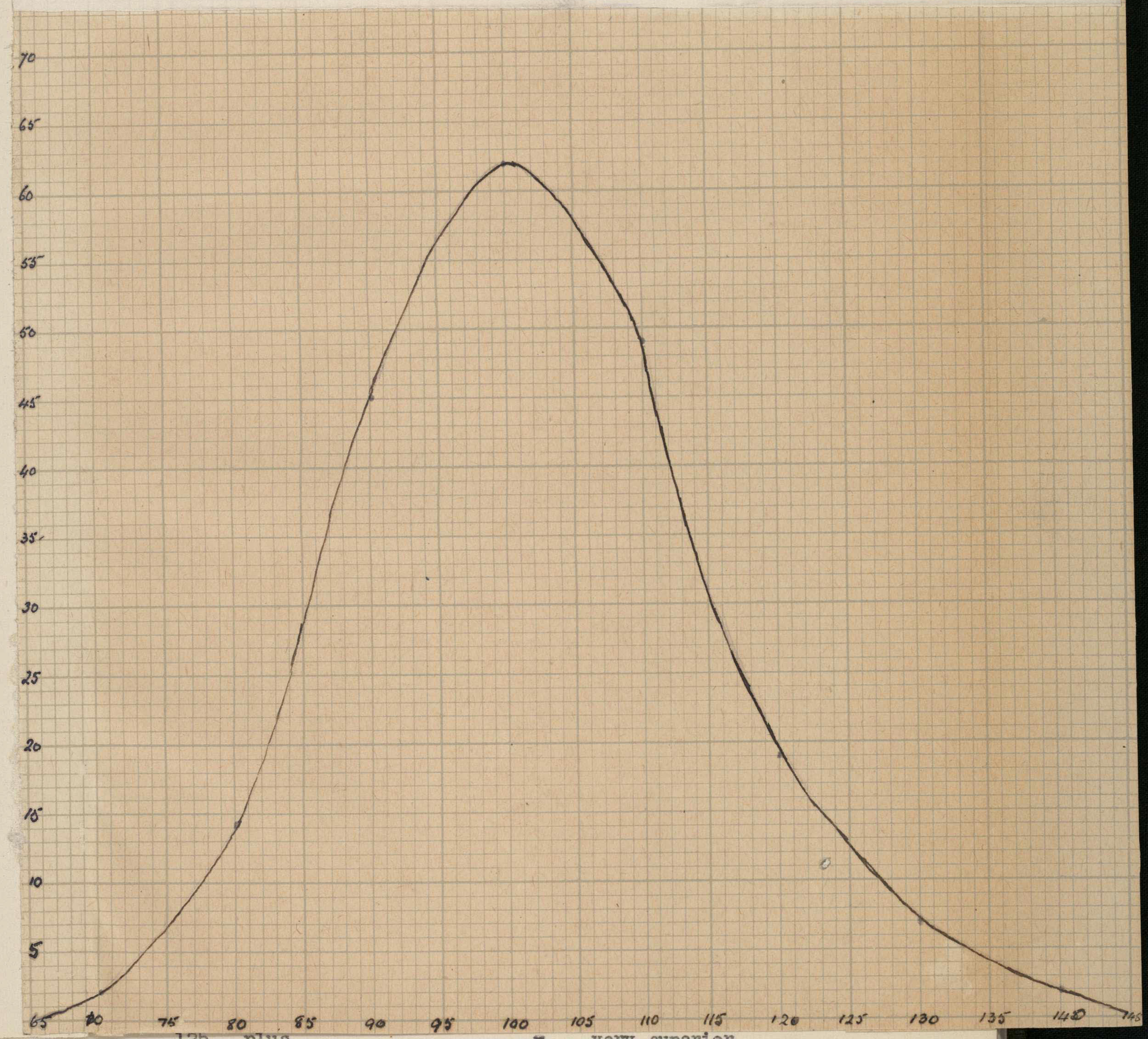
TABLE 1. EUROPEANS.

I.Q.	Cases.
65 - 74	2
75 - 84	14
85 - 94	45
95 - 104	62
105 - 114	49
115 - 124	19
125 - 134	7
135 - 144	2

TABLE 2. MAORIS.

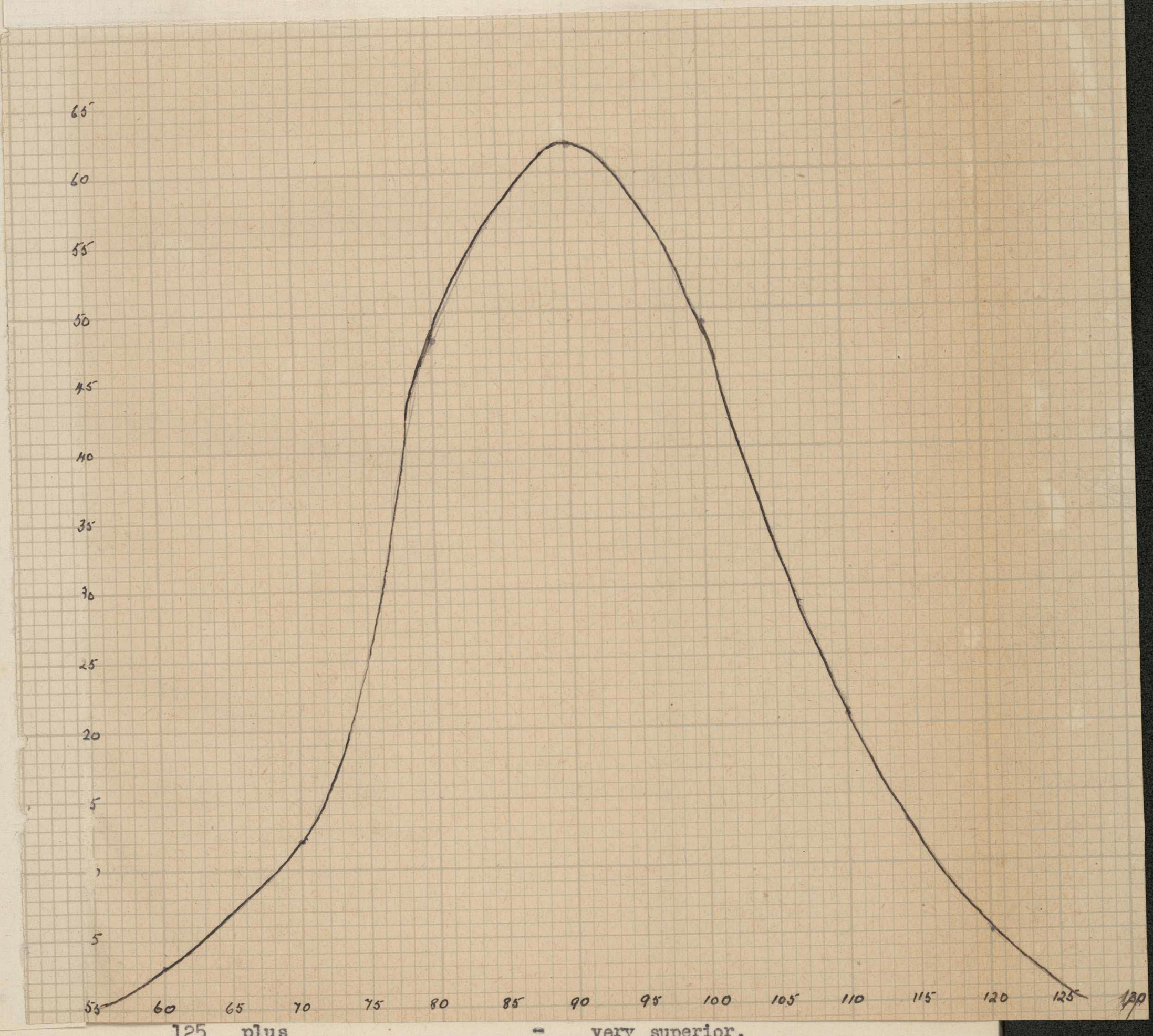
I.Q.	Cases.
55 - 64	3
65 - 74	12
75 - 84	48
85 - 94	62
95 - 104	49
105 - 114	21
115 - 124	5
125 - 134	0

GRAPH 3. DISBRIBUTION CURVE. - INTELLIGENCE 200 EUROPEANS.



125 plus - very superior.

GRAPH 4. DISTRIBUTION CURVE - INTELLIGENCE 200 MAORIS.



125 plus - very superior.

Before proceeding further, any intention to draw conclusions concerning the relative intelligence of the two races is immediately disclaimed. Difficulties such as language in a largely verbal intelligence test such as this, environment, custom, etc., all play a part in contributing to the ten (10) point lower I.Q. shown by the Maoris.

However, it is obvious that a new norm was necessary for the Maoris if the influence of intelligence on preference for subjects was to be compared with the European. Accordingly, a more detailed analysis of the distribution of intelligence was necessary (i) to find the norm and (ii) to find the standard deviation from the norm.

A new frequency table was drawn up which gave the mean at 92. The S.D. from the table was as follows:-

$$\Sigma d^2 = 30186$$

$$\text{Cases} = 200$$

$$\sigma = \sqrt{\frac{\Sigma d^2}{n}}$$

$$= \frac{30186}{200}$$

$$\sigma = \sqrt{151}$$

$$= 12.$$

(ii) Redmond and Davies distribution of intelligence groups was adopted as follows for Europeans:

60	-	74	=	sub-normal
75	-	86	=	dull
87	-	113	=	normal
114	-	124	=	superior
125	plus		-	very superior.

Is not reduced + lower S.D. 15? i.e Normal quant number ± 1 S.D.

? For Maoris the following procedure was adopted:-

Mean = 92 ± S.D of 12 ∴ Normal = 80 - 104

To work out the group below normal:

Europeans 87 - 74 = 13 Maoris 80 to x = ?

100 - 87 = 13 92 to 80 = 12

∴ 13 : 13 as 12 : x

$\frac{13}{13} = \frac{12}{x}$

13 x = 156

x = 12

Therefore, dull group in Maoris = 79 - 67

A similar ratio procedure was adopted for other intelligence groups and the following range in the groups resulted:-

TABLE 5. INTELLIGENCE GROUPING OF:

EUROPEANS	MAORIS	GROUP.
60 - 74	55 - 67	Sub-normal
75 - 86	68 - 79	Dull
87 - 113	80 - 104	Normal
114 - 124	105 - 114	Superior
125 plus	114 plus	Very Superior

Thus we now have in terms of absolute intelligence though not in terms of I.Q. two homogeneous groups of 200 Europeans and 200 Maoris.

(iii) The question of reduction to 200 Europeans and 200 Maoris was treated as follows....Of the 350 Europeans tested 106 were either plus or - ten years. This left a balance of 44 to be discarded. This was done by throwing out at random one in every six (6) until the correct number of 200 was reached.

In the case of the Maoris 97 were plus or minus ten years and these plus the lowest I.Q's were discarded. Why a different basis for discarding Maoris?

(iv) The third difficulty was whether the children were capable of grading the subjects preferred in order of difficulty i.e. from 1 - 10. It was decided definitely that they were not, so they were asked to mark the subject they liked best with a figure 1, the subject they liked second best with a 2, the subject they liked third best with a 3, and the subject they disliked most with an X.

Still the investigator was not satisfied and finally decided to ignore second and third choices except for Tables 40, 41, 42 and to concentrate the enquiry on first preference and subject disliked only.

In addition to this, there was the question of the teacher's influence to be considered. Each teacher therefore was asked to fill in a questionnaire as a cross-check of his influence. The negative results of the influence of his preference are shown in Table 43 et seg. It will be noted that agriculture, science and nature study were omitted from the questionnaire. This was done in order to obviate any personal influence of the moment that the investigator (then itinerant agricultural instructor) might have had on the child's preference.

(v) A further difficulty was whether the order of presentation of subjects in the questionnaire might not have some effect on the child's choice, i.e. if spelling was first on the list would they tend to give this fuller consideration than a subject lower down on the list. In view of this danger a special method of presenting the questionnaire was adopted and will be outlined in Section 5.

(vi) The validity of examination results next came under question. How far does success in passing examinations reflect the child's real ability in the subject? But the question is the influence of the child's personal idea of his success and this he judges from the marks he obtains in his tests and examination. Hence the examination marks averaged as noted above, were regarded as valid in influencing the child's opinion of his success or failure in a subject.

(vii) Since the children tested were to be taken from a wide variety of schools and districts, a very real difficulty presented itself in the great variety of environments encountered. As far as possible, this was equated by taking the following groups:-

100 children (European) 50 boys and 50 girls from Gisborne schools.

100 children (European) 50 boys and 50 girls from Country schools.

either (a) Where Maori and Europeans were educated together, OR,

(b) Where they were educated in separate schools but in the same village.

200 Maori children - 100 boys and 100 girls from areas as in (a) and (b) above.

By this means it was hoped to keep the environmental factor constant for town children and for Maori and European children of similar educational areas.

(viii) A final difficulty was the problem of the effect of individual schools and teachers. This was overcome by testing children in a wide variety of schools so that the individual effects would tend to cancel one another out and thus at least, the main trends in preferences would be indicated.

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SECTION V. METHOD & PLACE OF DATA SELECTION.

At the outset, the investigator wishes to make it clear that the collection of data was entirely his own work. Considerable travelling was involved as the schools visited were from Tokomaru Bay, 56 miles North of Gisborne, to Whatatutu 32 miles South of Gisborne. The method adopted was as follows:-

(a) The Otis B test was administered under the strictest personal supervision. This was then collected and taken home for later marking.

(b) The questionnaire was distributed to the children face downwards. When all was prepared, the questionnaires were turned over and the first section down to "3" was read over to the children. The second section was then read over down to X. Each subject was next read out with equal voice emphasis on each, and with a ten (10) second pause between each subject named.

The children were then addressed as follows, the patter and drill being kept constant for each group -

"Now pick up your pencils and mark with a figure 1 the subject you like learning best."

"Pencils down." (When all had completed).

The same patter and drill were repeated for the second and third choices.

"Now, pick up your pencils and mark with an X the subject you hate learning."

"Pencils down."

The papers were then collected after the child had filled in the relevant data at the top of the paper.

(c) Next the teacher was asked to complete a questionnaire as previously mentioned.

(d) The examination registers were then obtained and on the lines 1, 2, 3 and X the child's marks, averaged for the last two examinations, were entered. Thus, if a child chose arithmetic as his first choice this would be 1, and on the line 1 below, the appropriate marks for this subject were entered. The same procedure was followed for 2, 3 and X.

The following schools were selected for the purpose of testing the children.

(i) Tokomaru Bay Maori School. The school, situated 56 miles North of Gisborne is in the hart of the Ngati-Porou country. It is a newly formed D.H.S. The school was chosen as in the same town there is the Tokomaru Bay Public School so that the environment for the children in both schools was approximately the same.

(ii) Tokomaru Bay Public School. This school is a four-teacher school situated about one-quarter of a mile from the Maori School.

(iii) Tolaga Bay District High School. This is a large grade V School also situated in a district where the population is predominantly Maori. In this school there are a large number of Europeans so that the school environment is constant for both races.

(iv) Makauri Primary School. This school is some ten (10) miles from Gisborne and here again European and Maori are educated together. The latter, however, form a small minority.

(v) Patutahi Primary School. This school is about eleven (11) miles from Gisborne and is attended by a school population of approximately 50 - 50 European and Maori.

(vi) Ormond Primary School. About thirteen (13) miles from Gisborne again

has a school population as for Patutahi.

(vii) Te Karaka District High School - is a large District High School about twenty-two (22) miles from Gisborne. Here again European and Maori are educated in the same school.

(viii) Puha Primary School a smaller school 27 miles from Gisborne has a school population predominantly Maori.

(ix) Whatatutu Primary School about thirty-two (32) miles from Gisborne is in the heart of a Maori settlement and its pupils are mainly Maoris.

(x) Mangapapa and Central are two very large Gisborne schools and from these the town children were selected.

The final numbers, race, and schools are shown in the following table:-

TABLE 6. SCHOOLS & CASES USED.

EUROPEANS

School.	M.	Sex F.	Total
Tokomaru Bay P.S.	10	8	18
Tokomaru Bay M.S.	0	0	0
Tolaga Bay D.H.S.	11	8	19
Makauri P.S.	5	2	7
Patutahi P.S.	5	8	13
Ormond P.S.	2	10	12
Te Karaka D.H.S.	11	9	20
Puha P.S.	0	0	0
Whatatutu P.S.	6	5	11
Mangapapa	15	21	36
Central	35	29	64
	100	100	200

MAORIS.

School	M.	Sex F.	Total
Tokomaru Bay P.S.	1	7	8
Tokomaru Bay M.S.	25	20	45
Tolaga Bay D.H.S.	19	17	36
Makauri P.S.	7	3	10
Patutahi P.S.	17	8	25
Ormond P.S.	5	7	12
Te Karaka D.H.S.	9	15	24
Puha P.S.	6	8	14
Whatatutu P.S.	11	15	26
Mangapapa	0	0	0
Central	0	0	0
	100	100	200

In the consideration of the results it was necessary to isolate as far as possible

the various factors to be tested. This was done as follows:-

(The .x. indicates that the group was considered and the -- that it was eliminated).

TABLE 7. GROUPS USED IN VARIOUS FACTOR TRIALS.

	Intelligence	Sex	Race	Environment	Success
Town	.x.	.x.	--	.x.	.x.
Country	.x.	.x.	.x.	.x.	.x.
Maori	.x.	.x.	.x.	--	.x.

Thus all groups were considered for the influence of intelligence, sex and success on preference. For the influence of race, Country Europeans and Maoris only were considered, thus eliminating influence of environment. Town and Country Europeans only were considered for the influence of environment, thus eliminating the racial influence.

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SECTION VI. CHILDREN'S SUBJECT PREFERENCES

The following tables show:-

(a) Subjects children prefer - raw scores.

(b) Subjects children prefer - percentage scores.

(c) Subjects children dislike - raw scores.

(d) Subjects children dislike - percentage scores.

TABLE 8. SHOWING CHILDREN'S PREFERENCES - RAW SCORES.

Race	Cases	Read	.Arith.	Spell.	Draw.	Writing.	Recit.	Compo.	Handk.	Engl.	Soc. St.
E.	200	28	52	28	25	10	3	6	22	2	24
M	200	24	66	26	43	3	2	5	18	0	13
Total	400	52	118	54	68	13	5	11	40	2	37

TABLE 9. SHOWING CHILDREN'S PREFERENCES - PERCENTAGE.

Race	%	Read.	Arith.	Spell.	Draw.	Writihg.	Recit.	Compo.	Handk.	Engl.	Soc. St.
E		14	26	14	12½	5	1½	3	11	1	12
M		12	33	13	21½	1½	1	2½	9	0	6½
Total		13	29.5	13.5	17	3	1	3	10	1/2	9

TABLE 10. SHOWING CHILDREN'S DISLIKES - RAW SCORES.

Race	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Compo.	Handk.	Engl.	Soc. St.
E.	200	7	31	9	7	12	22	62	3	16	31
M.	200	13	25	4	12	4	31	49	17	11	34
Total	400	20	56	13	19	16	53	111	20	27	65

TABLE

TABLE 11. SHOWING CHILDREN'S DISLIKES - PERCENTAGE

Race.	% .	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Compo.	Handk.	Engl.	Soc. St.
E.		3½	15½	4½	3½	6	11	31	1½	8	15½
M.		6½	12½	2	6	2	15½	24½	8½	5½	17
Total		~~10~~ 5	~~28~~ 14	~~6½~~ 3	~~9½~~ 5	8 4	~~26½~~ 13	~~55½~~ 28	~~10~~ 5	~~13½~~ 7	~~32½~~ 16

A detailed analysis of the above will be found in the sections following.

I.Q.Group	Cases.	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Comp.	Handk.	Eng.	etc.
51 - 74	2	1	1	0	0	0	0	0	0	0	0
75 - 87	30	2	5	7	5	3	0	1	4	2	1
88 - 114	136	19	35	19	16	7	2	4	14	0	20
115 - 125	27	5	9	1	4	0	1	1	4	0	2
126 plus	5	1	2	1	0	0	0	0	0	0	1
Totals	200	28	52	28	25	10	3	6	22	2	24

It will be at once apparent from the above table that the figures in the groups 51 - 74 and 126 plus are too small to be significant. Accordingly, the procedure to be adopted was amended to the three (3) group principle:

(i) Below average 0 - 87
(ii) Average 88 - 114
(iii) Above average 115 plus

TABLE 12. INFLUENCE OF INTELLIGENCE ON PREFERENCE - EUROPEANS.(%)

Group	Cases.	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Com.	Hndwk.	Eng.	Soc. St.
Below Av.	32	9	20	22	16	9	0	3	12	7	3
Average	136	13	26	14	12	5	1	32	10	0	15
Above Av.	32	19	35	6	12	0	3	3	12	0	10

The order of preference of the first four subjects for each intelligence level of Europeans is:

SECTION VI (a).1. INFLUENCE OF INTELLIGENCE ON PREFERENCE - EUROPEANS.

For this enquiry, the children were grouped as noted in Section IV. The table below shows the results.

TABLE 12. - DISBRIBUTION OF SUBJECTS PREFERRED ACCORDING TO INTELLIGENCE - EUROPEANS.

I.Q.Group	Cases.	Read.	Arith.	Spell.	Draw..	Writing.	Recit,	Comp.	Hndwk.	Eng.	Sec. St.
61 - 74	2	1	1	0	0	0	0	0	0	0	0
75 - 87	30	2	5	7	5	3	0	1	4	2	1
88 - 114	136	19	35	19	16	7	2	4	14	0	20
115 - 125	27	5	9	1	4	0	1	1	4	0	2
126 plus	5	1	2	1	0	0	0	0	0	0	1
Totals	200	28	52	28	25	10	3	6	22	2	24

It will be at once apparent from the above table that the figures in the groups 61 - 74 and 126 plus are too small to be significant. Accordingly, the procedure to be adopted was amended to the three (3) group principle:

(i) Below average 0 - 87
(ii) Average 88 - 114
(iii) Above average 115 plus

TABLE 13. INFLUENCE OF INTELLIGENCE ON PREFERENCE - EUROPEANS.(%)

Group	Cases.	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Comp.	Hndwk.	Eng.	Sec. St.
Below Av.	32	9	20	22	16	9	0	3	12	7	3
Average	136	13	26	14	12	5	1	2	10	0	15
Above Av.	32	19	35	6	12	0	3	3	12	0	10

The order of preference of the first four subjects for each intelligence level of Europeans is:

TABLE 14. ORDER OF PREFERENCE ACCORDING TO INTELLIGENCE.

Below Average	Average	Above Average
Spelling	Arithmetic	Arithmetic
Arithmetic	Social Studies	Reading
Drawing	Spelling	Drawing
Handwork	Reading	Handwork

Several points emerge from Table -

(i) There is an increase in reading preference as we proceed from the lowest to the highest group in intelligence. This of course, may be both cause and effect of the respective scores in the intelligence test. The fact that the below average child does not like reading means that little of his leisure time is given up to it. The Otis B - an almost completely verbal test - will in all probability reflect this lack of reading.

However, the most striking thing about the reading is the extremely low number of children, 28 in all who chose it. This must be interpreted surely as a weakness in our educational method. Obviously, the children are not fond of reading and it is possible that this is due in a large degree to the obsession of teachers and inspectors for the oral aspects and mechanics of the subject. While the mechanics of the subject are important (as means not ends), the Writer sees little justification for the continued stress on oral reading in the middle and upper school. Teachers too readily overlook the fact that reading is primarily for onesself not the group. It is felt that if silent reading with frequent comprehension tests was stressed, there would be a rapid rise of reading in the scale of popularity. Every effort should be made to effect such

a rise.

(ii) The high popularity of arithmetic is a surprising fact. Here again the increase in popularity with increase in intelligence is what is to be expected. Possible causes of this choice are -

(a) The re-organisation of the work and the issue of new textbooks of an interesting type well within the scope of the child's ability.

(b) The self testing nature of the work so that the child is able to watch his own progress.

It would be interesting to test the validity of point (a). The only point the Writer would make is that his earlier experience in the teaching profession indicated that children did not like arithmetic to the extent shown today.

(iii) Spelling as taught in the schools from lists and by drill methods, appears to the writer to be a totally useless subject. Indeed he did and would again find no place for spelling on a time table, teaching new words purely incidentally as they arose. It is interesting to note the decrease in preference for spelling with increase in intelligence. It is at least possible that this is due to the purely mechanical drill like methods of teaching adopted. The lower intelligent child may enjoy these. The higher intelligence does not appear to do so.

With this mechanical drill type of teaching, writing could also be grouped. Here again the decrease of preference with increase of intelligence is also noticeable. Again, once the mechanics of the subject were mastered, it is felt that the subject as such should be dropped and the work in writing treated incidentally.

(iv) Recitation figures are a very real tragedy. A total of 4% like this

subject and indeed, as a later table shows, a very large number are actually averse to it. To the writer it is a grave reflection on teachers that poetry, a subject so charged with affect should be disliked. Can we assign a reason for this? It would appear to be due to a number of factors -

(a) Teaching the wrong type of poem. It is noticeable that the stress in teaching poetry is on the Romantic school. Might it not be better at this stage to concentrate on more rhythmic poems?

(b) There is too much stress laid on repeating the poem - putting expression in and the like. Such expression is frequently a mere mechanical repetition of the teacher's inflection.

(c) Too much stress is laid on being word perfect. The writer feels that choral speaking is preferable to overcome the grind of learning something by rote, which the child feels to be meaningless.

In summing up, what emerges from this table is that -

(a) There is a tendency for the higher intelligence groups to prefer the verbal and number subjects most e.g. reading, arithmetic, social studies -

(b) The lower groups prefer the more mechanical subjects e.g. spelling, drawing, writing.

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SECTION VI(a) 11. INFLUENCE OF INTELLIGENCE ON PREFERENCE - MAORIS.

TABLE 15. DISTRIBUTION OF SUBJECTS PREFERRED ACCORDING TO INTELLIGENCE - MAORIS.

I.Q.Group	Cases	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Comp.	Handwk.	Eng.	Soc. St.
55 - 67	4	2	1	0	1	0	0	0	0	0	0
68 - 79	38	6	11	9	7	0	0	0	4	0	1
80 - 104	126	15	46	12	27	3	2	3	10	0	8
105 - 114	24	1	6	4	7	0	0	2	2	0	2
115 plus	8	0	2	1	1	0	0	0	2	0	2
Total	200	24	66	26	43	3	2	5	18	0	13

As with the similar table for Europeans it will be seen that the figures in the top and bottom groups are too small to be significant. Hence they are grouped to show percentages in three (3) groups as below:-

TABLE 16. INFLUENCE OF INTELLIGENCE ON PREFERENCE - MAORIS. (%)

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing.	Recit.	Comp.	Handwk.	Eng.	Soc.St.
Below Av.	42	19	29	21	19	0	0	0	10	0	2
Average	126	12	37	10	21	2	1	2	8	0	6
Above Av.	32	3	25	16	25	0	0	6	12½ ~~25~~	0	12½ ~~25~~
	200										

The order of preference for the first four subjects for the various intelligence levels of Maori children, is:

TABLE 17(a) ORDER OF PREFERENCE ACCORDING TO INTELLIGENCE:

Below Average	Average	Above Average
Arithmetic	Arithmetic	Arithmetic)
Spelling	Drawing	Drawing)
Drawing)	Reading	Handwork) =
Reading) =	Spelling	Social Studies)

Some curious factors emerge from this table when compared with that for Europeans.

(i) Though the numbers liking reading are similar for both groups yet the order is completely reversed. The lower intelligence Maori group prefer reading to the higher intelligence group. The writer can offer no reasonable explanation for this reversal of preference.

(ii) As with Europeans, arithmetic is still prime favourite though 33% prefer the subject compared with 26% for the Europeans. The distribution is again different from the European. The lower group preferring it more than the higher group.

(iii) Drawing shows a significant difference running into secomd place with 21.5% for Maoris, as against 12½% and fourth place for Europeans. There can be little doubt that the Maori child uses drawing as a means of expression and as an emotional outlet to a much greater extent than the European.

(iv) The figures for writing show a much lower preference in the case of the Maoris. This again is curious in that in general the Maori child writes far more freely and better than the European of the same age.

The comparable figures for both groups and percentages can be shown as follows:

TABLE 17 (b). COMPARISON EUROPEAN & MAORI PREFERENCES.

SUBJECT	EUROPEAN		MAORI		TOTALS	PER CENT.
	Number	Per Cent	Number	Per Cent		
Reading	28	14	24	12	52	13
Arithmetic	52	26	66	33	118	29½
Spelling	28	14	26	13	54	13½
Drawing	25	12½	43	21½	68	17
Writing	10	5	3	1½	13	3¼
Recitation	3	1½	2	1	5	1¼
Composition	6	3	5	2½	11	2¾
Handwork	22	11	18	9	40	10
English	2	1	0	0	2	½
Social Studies	24	12	13	6½	37	9¼
	200		200		400	100%

TABLE 18. PERCENTAGES SCORES FOR ALL CASES.

(EUROPEAN & MAORI)

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	74	14	24½	21½	17½	4½	0	1½	11	3½	2½
Average	262	12½	31½	12	16½	3½	1	2	9	0	10½
Above Av.	64	11	30	11	18½	0	1½	4½	12½	0	11½

(v) A further point of interest is the increased liking for handwork with intelligence. With the Europeans the preference was similar for all groups.

However, in general it is significant that the choices for intelligence groups show less differences than scores for racial groups.

(vi) When the two races are considered together the results are as follows:

Reading - equally popular with all groups.

Arithmetic - lowest group shows least liking for subject.

Spelling - lowest group likes it best.

Drawing - equally popular with all groups.

Writing - decrease in liking with increase in intelligence.

Composition - average group likes it best of the three groups.

English - not very popular but lowest group likes it best.

Social Studies - increase in popularity with increase in intelligence.

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SECTION VI (b). INFLUENCE OF INTELLIGENCE ON SUBJECTS DISLIKED

(i) EUORPEANS.

This is the subject marked with a cross on the questionnaire. The groups are as for preference.

TABLE 19. INFLUENCE OF INTELLIGENCE ON DISLIKES - EUROPEANS.

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	32	2	8	5	2	1	0	8	0	2	4
Average	136	5	19	3	5	7	20	43	2	12	20
Above Av.	32	0	4	1	0	4	2	11	1	2	7
	200	7	31	9	7	12	22	62	3	16	31

TABLE 20. INFLUENCE OF INTELLIGENCE ON DISLIKES - MAORIS.

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	42	5	7	2	3	1	2	9	1	2	10
Average	126	4	15	2	7	2	23	34	14	7	18
Above Av.	32	4	3	0	2	1	6	6	2	2	6
	200	13	25	4	12	4	31	49	17	11	34

TABLE 21. PERCENTAGE TABLE - INTELLIGENCE & DISLIKES - EUROPEANS.

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	32	6	25	16	6	3	0	25	0	6	12½
Average	136	4	14	2	4	5	15	32	1	9	15
Above Av.	32	0	12½	3	0	12½	6	34	3	6	22

TABLE 22. PERCENTAGE TABLE - INTELLIGENCE & DISLIKES - MAORIS.

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	42	12	17	5	9	2	5	21	2	5	24
Average	126	3	12	2	6	2	18	27	11	6	14
Above Av.	32	12½	9	0	6	3	19	19	6	6	19

(i) The pattern in reading for dislikes shows a similar variation with intelligence in the case of the Europeans i.e. the lower group showing a more marked dislike of the subject. When compared with the similar group for the Maoris, the central group shows the least dislike.

(ii) Other figures in the tables speak for themselves, but the writer would like to deal with the figures for composition. It will be noted from tables Nos 8 & 9, how few like the subject. If the other aspect of positive dislike is considered, it will be noted that in both groups this subject is easily the most unpopular. In the case of the European 31% and with the Maori 24½% positively dislike the subject. There is no apparent grading from group to group all equally disliking the work. Here again the writer feels that we must take ourselves to task. Is there any real reason for the retention of composition as such in the curriculum? If there is the Writer feels it should be used for what it is intended, largely as a mode of emotional expression. He would plead for brighter teaching of the subject - the use of the "Five minute essay," the writing of "Novels" illustrated by the children.

(iii) Finally, the figures for social studies are significant. There is for all groups far too many disliking a subject which if properly taught, should be full of interest for the child. There is too, little significant difference in the dislike from group to group at the varying intelligence levels.

TABLE 23 - PERCENTAGE TABLE - INTELLIGENCE & DISLIKES - ALL CASES.

Group	Cases	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Below Av.	74	9	21	10½	7½	2½	2½	23	1	5½	18½
Average	262	3½	13	2	5	3½	16½	29½	6	7½	14½
Above Av.	64	6	11	1½	3	8	12½	26½	4½	6	20½

From Table No. 23 the following trends can be seen -

Reading ... Average group shows little dislike.

Arithmetic ... Increase in dislike from highest to lowest group.

Spelling ... Increase in dislike from highest to lowest group.

Drawing ... Increase in dislike from highest to lowest group.

Writing ... Increase in dislike with increase in intelligence.

Recitation ... Very unpopular but mostly so with higher groups.

Composition ... Most unpopular but equally so with all groups.

Handwork ... Middle group shows most dislike.

English ... Dislike fairly equally distributed.

Social Studies... Disliked mostly by highest I.Q. group.

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SECTION VI (c). INFLUENCE OF RACE ON PREFERENCE.

In considering this factor one hundred (100) European children educated in schools with Maori children, and two hundred (200) Maori children are considered. The tables show results in a percentage form.

TABLE 24. - SHOWING INFLUENCE OF RACE ON FIRST PREFERENCE.

Race	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
European	18	20	13	16	4	1	4	12	2	10
Maori	12	33	13	22	1	1	3	9	0	6

TABLE 25. - SHOWING INFLUENCE OF RACE ON SUBJECT DISLIKED.

Race	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Compo.	Handwk.	Eng.	Soc.St.
European	4	21	4	5	3	10	24	2	11	16
Maori	7	12	2	6	2	16	24	8	6	17

Some significant race differences emerge from the first table. The order of preference for both races is:

TABLE 26. - SUBJECTS PREFERRED BY EACH RACE.

EUROPEANS	Score	MAORIS	Score
Arithmetic	20	Arithmetic	33
Reading	18	Drawing	22
Drawing	16	Reading	12

Some significant differences are noticeable in the figures. This applies particularly to arithmetic and drawing. It is interesting to see the high degree of popularity of arithmetic as a subject among the Maori children. Another strange difference is the fact that European children prefer handwork in a higher number of cases than Maoris. Yet, as the Maori child is on the whole very good at handwork, it would appear that here is something wrong in

the teaching of the subject. In many schools where there is a large percentage of Maoris, but which are not classed as Maori schools, the handwork taught appears as somewhat remote from the life of the Maori. On the other hand, in most Maori schools, the handwork taught is mainly native arts and crafts e.g. carving, tukutuku, taniko, etc. It would be interesting to see what influence the introduction of these native crafts has on the child's liking for the subject.

Turning now to the table of dislikes, we see the following order of dislikes:

TABLE 27. SUBJECTS DISLIKED BY EACH RACE.

EUROPEANS	Score	MAORIS	Score
Composition	24	Composition	24
Arithmetic	21	Social Studies	17
Social Studies	16	Recitation	16

It is interesting to note the substantial measure of agreement between the two races. In connection with the teaching of recitation as such to Maori children, it appears to the writer to be preferable to substitute for this some form of verbal Maori expression for example hakas or to use the dramatised type of recitation particularly for the younger groups.

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SECTION VI. (d). INFLUENCE ON SEX ON PREFERENCE.

For the purpose of assessing the influence of sex, all the children are taken though Maori and European are kept separate in order to check for possible racial influence.

TABLE 28. TABLE SHOWING INFLUENCE OF SEX ON PREFERENCE - PERCENTAGES.

	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
European) Boys	15	23	12	13	4	1	1	12	0	19
Maori) Boys	8	32	10	31	0	0	1	8	0	10
European) Girls	13	29	16	12	6	2	5	10	2	5
Maori) Girls	16	34	16	12	3	2	4	10	0	3
Boys - all	11½	27½	11	22	2	1/2	1	10	0	14½
Girls - all	14½	31½	16	12	4½	2	4½	10	1	4

TABLE 29. SUBJECTS PREFERRED ACCORDING TO SEX.

Boys	Score	Girls	Score
Arithmetic	27.5	Arithmetic	31.5
Drawing	22	Spelling	16
Social Studies	14.5	Reading	14.5

The significant points are:-

(i) The continued preference, regardless of sex, for arithmetic though girls prefer this more than boys do.

(ii) Boys, both Maori and European, much prefer drawing. The heavily weighted score here, however, is due to the marked preference shown by Maori boys for the subject. It is likely that the Maori boy finds his means of expression of the environment in which he findshimself, through drawing, due to the paucity of his English vocabulary.

(iii) Social studies, again, is more favoured by boys, though the weight here comes from the European boys. Does this express a fundamental sex difference? Is the boy the rover and adventurer at this age and the girl more content with her immediate environment.?

(iv) The high place given to spelling in the girls preference, the writer finds difficult to understand. If ability to spell depends, as is sometimes asserted, on reading ability, then may it be assumed that girls at ten (10) years are better readers than boys? This question will be examined when the next table - Influence of success - is considered.

TABLE 30. INFLUENCE OF SEX ON DISLIKES.- (PERCENTAGE).

	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
European) Boys	4	13	6	3	6	17	31	0	12	8
Maoris)	9	10	1	5	4	20	25	11	6	9
European) Girls	3	18	3	4	6	5	31	3	4	23
Maoris)	4	15	3	7	0	11	24	6	5	25
Boys - all	6½	11½	3½	4	5	18½	28	5½	9	8½
Girls - all	3½	16½	3	5½	3	8	27½	4½	4½	24

TABLE 31. SUBJECTS DISLIKED ACCORDING TO SEX.

Boys	Score	Girls	Score
Composition	28	Composition	27½
Recitation	18½	Social Studies	24
Arithmetic	11½	Arithmetic	16½

(i) It is interesting to note that a large section of both boys and girls have a marked antipathy to arithmetic. This subject would appear to be one which the child responds to strongly, either with liking or dislike. A

possible explanation of this may be found in there being a special number ability and/or to the stress laid on the subject in our teaching.

(ii) Recitation appears high in the dislike ranking at this age. The writer would suggest that if this subject is to be retained in the curriculum, a radically new approach is needed to the teaching of it. He would say that if it inspires only loathing it should be dropped, particularly for boys.

(iii) Social studies too, requires an overhaul. Is it unpopular with girls because it stresses the doings of man to the almost complete exclusion of women's work in the world?

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SECTION VI (e). INFLUENCE OF ENVIRONMENT ON PREFERENCE.

For this table, one hundred (100) European country children are compared with one hundred (100) European town children. The factor of race is eliminated, sex and intelligence are equated.

TABLE 32. INFLUENCE OF ENVIRONMENT ON PREFERENCES.

Group	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Compo.	Handwk.	Eng.	Social Studies
Town	10	32	15	9	6	2	2	10	0	14
Country	18	20	13	16	4	1.	4	12	2	10

TABLE 33. SUBJECTS PREFERRED ACCORDING TO ENVIRONMENT.

Town	Score	Country	Score
Arithmetic	32	Arithmetic	20
Spelling	15	Reading	18
Social Studies	14	Drawing	16

(i) Here again for both groups arithmetic heads the list, but the considerable difference in the number preferring the subject is noteworthy. If the list is examined it will be seen that town children prefer the academic school subjects to what might be termed the more cultural and leisure time subjects.

(ii) Social studies is an interesting third choice. It is probable that the town child hears and sees more of the outside world, than the country child. He sees the overseas ships, possibly hears other countries discussed more in his home. The country child is more closely linked to his immediate environment at this age, and finds his interests in the

immediate living of the community and in the plants and animals, the impact of the weather and the geographical changes in the world in his immediate neighbourhood.

(iii) The high place given to both reading and drawing by the country child are probably due to the fact that he is thrown more on his own resources for his leisure time occupations. Where the town child has picture theatres, organised sports, playmates and other interests immediately available, to the country child these are in many cases more remote. In consequence, he tends to find his pleasure in such things as reading and drawing. These tend to carry over to the home to a greater degree than they do with the town child.

TABLE 34. INFLUENCE OF ENVIRONMENT ON DISLIKES. - PERCENTAGES.

Group	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc. St.
Town	3	10	5	2	9	12	38	1	5	15
Country	4	21	4	5	3	10	24	2	11	16

TABLE 35. SUBJECTS DISLIKED ACCORDING TO ENVIRONMENT.

Town	Score	Country	Score
Composition	38	Composition	24
Social Studies	15	Arithmetic	21
Recitation	12	Social Studies	16

(i) Composition again heads the list of dislikes with (in the case of the country child) arithmetic a close second. The town child appears to be more definite in his dislike of this subject.

(ii) It is interesting to note that social studies comes into second place with the town child. This is doubtless due to sex influence -

see Table 31. For the country child it falls into third place in the dislikes

(iii) Though few country children express a dislike of recitation this is not liked by the town child. This is strange in view of the fact that a large number of town children learn elocution outside the school, whereas few of the country children do so.

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SECTION VI (f). INFLUENCE OF SUCCESS IN SCHOOL SUBJECTS ON PREFERENCE.

For this factor all the children are considered though the scores for races are at first kept separate.

The procedure is as follows:-

(a) The mean of the marks obtained in the two 1947 examinations was taken -

(b) The children were divided into five (5) groups according to their marks as follows:-

(i)	Inferior	0 - 39	5
(ii)	Below average	40 - 54	4
(iii)	Average	55 - 74	3
(iv)	Above average	75 - 89	2
(v)	Superior	90 - 100	1

The aim is to see whether children really prefer the subjects they are GOOD at.

TABLE 36. INFLUENCE OF SUCCESS IN ORDER OF PREFERENCE.

Rank	Read.		Arith.		Spell.		Draw.		Writing		Recit.		Comp.		Handwk.		Eng.		Soc. St.	
European -5	0	0	2	7	1	3	0	0	0	0	0	0	0	0	1	1	0	0	0	3
MAORI	0		5		2		0		0		0		0		0		0		3	
European - 4	2	11	6	31	2	9	6	13	2	3	1	1	1	4	2	6	0	0	2	2
Maori	9		25		7		7		1		0		3		4		0		0	
European - 3	11	20	16	34	2	9	9	20	7	9	1	3	2	4	13	23	1	1	4	7
Maori	9		18		7		11		2		2		2		10		0		3	
European - 2	11	16	15	29	12	17	6	26	1	1	1	1	3	3	6	8	0	0	13	16
Maori	5		14		5		20		0		0		0		2		0		3	
European - 1	4	5	13	17	11	16	4	9	0	0	0	0	0	0	0	2	1	1	5	9
Maori	1		4		5		5		0		0		0		2		0		4	
400	52		118		54		68		13		5		11		40		2		37	

It will be seen from the table above that by far the greater number fall into the

groups 3 to 1 inclusive. It is however, noticeable that success does not appear to influence the Maori child as much as it does the European. The former likes the subject for the joy he gets from doing it regardless of his success in it.

The results are shown more clearly in the following percentage table:-

TABLE 37. PERCENTAGE (i) AVERAGE AND ABOVE.
(ii) BELOW AVERAGE.

	Group	Read.	Arith.	Spell.	Draw.	Writ.	Recit.	Comp.	Handwk.	Eng.	Soc. St.
(ii)	European	5 & 4	4	7	6	9	15	0	9	7½	0	5
	Maori		19	22	18	10	7½	20	27	10	0	8
	Total %		23	29	24	19	22	20	36	17½	0	13
(i)	European	3	50	38	46	28	62	40	45	47½	100	59
	Maori	2 1	29	31	31	53	16	40	22	35	0	27
	Total %		79	69	77	81	78	80	67	82½	100	86

(NOTE: Percentages taken to nearest whole).

(i) It is clear from the above table that the child likes the subjects he is good at. The only subjects which approach liking even though poorly done by the child, are composition and arithmetic.

(ii) As previously pointed out the Maori child is not influenced to the same extent by his success in the subject. Note for example the comparatively close figures for reading, arithmetic, and the inversion for composition.

(iii) But while the tables show that the child prefers the subject he is good at, it does not show whether he likes best the subject he is MOST successful at. This will be dealt with in a later table.

(iv) One moral should be drawn from this section. It is, that the teacher should use as many self testing devices as possible so that the child can see his own progress and success in the subject. The writer would suggest the introduction of these for reading, composition, English and Social Studies particularly.

We turn now to the influence of success on dislikes.

TABLE 38. INFLUENCE OF SUCCESS ON DISLIKES.

Group	Read.		Arith.		Spell.		Draw.		Writing		Recit.		Compo.		Handwk.		Eng.		Soc. St.	
European - 5	0	1	5	18	4	5	0	0	1	1	10	15	6	11	0	0	2	2	12	18
Maori	1		13		1		0		0		5		5		0		0		6	
European - 4	3	11	11	18	1	3	3	11	4	8	7	24	28	47	3	15	6	15	6	23
Maori	8		7		2		8		4		17		19		12		9		17	
European - 3	3	7	10	15	1	2	3	6	7	7	5	10	21	39	0	3	3	5	5	14
Maori	4		5		1		3		0		5		18		3		2		9	
European - 2	1	1	2	2	0	0	1	2	0	0	0	4	7	12	0	2	5	5	7	9
Maori	0		0		0		1		0		4		5		2		0		2	
European - 1	0	0	3	3	3	3	0	0	0	0	0	0	0	2	0	0	0	0	1	1
Maori	0		0		0		0		0		0		2	2	0		0		0	
400	20		56		13		19		16		53		111		20		27		65	

In this series we have the bulk of the children selecting subjects which fall in the success groups 4 and 5. This demonstrates that the child does not like the subject he is poor at and is the converse of the previous table. For clarity sake it is now converted to a percentage table.

TABLE 39. PERCENTAGE - INFLUENCE OF SUCCESS ON DISLIKES.

Group	Read.	Arith.	Spell.	Draw.	Writing	Recit.	Comp.	Handwk.	Eng.	Soc St.
European	5	15	27	38	16	31	32	31	15	29	28
Maori	8	45	36	23	42	25	42	22	60	33	35
Total %	4	60	63	61	58	56	74	55	75	61	63
European	3	20	27	31	21	44	9	25	0	33	20
Maori	2	20	9	9	21	0	17	21	25	7	17
Total %	1	40	36	40	42	44	26	46	25	40	37

(i) The first fact that emerges from a consideration of the above table is

that the influence of success makes little difference ifthe child actively dislikes the subject. A mean of the cases for likes an success gives 20.4 liking the subject and being weak at it and 79.6 the conerse. In the case of dislikes the comparable figures are 37.4 dislike the subect but are good at it, while 62.6 dislike the subject but are weak at it. Thi would appear to indicate that something other than success or lack of it, enters n. The writer would suggest some emotional factor that the subject either posesses intrinsically, or that has been built up by or for the child.

(ii) The dislike of composition in spite of success apears most obvious here, with writing following on as a close second.

(iii) Summing up, it would appear then that:-

(a) Success has a considerable influence on likig for a subject, but -

(b) A considerably less influence on subjects diliked.

Now, while the above tables show whether a child likes te subject he is good at, it does not show if he likes the subject he is best at bst, and the subject he is worst at least. This interesting point will now be conidered.

. . . . . .

SECTION VI.(g).

Does the child like best the subject he is best at and least, the subject he is worst at?

. . . . . .

It will be recalled that when the children filled in the questionnaire they marked in their first, second and third preferences, together with the subject they disliked (See Sections 3 and 5).

The subjects were now equated to a comparable basis. Suppose that a child had the following choices and marks:

1. English 57 ... 2. Spelling 79 ... 3. Reading 68 &. X Recitation 43.

These were now graded as follows:-

Spelling	A	In new table	A.2.
Reading	B	: : :	B.3.
English	C	: : :	C.1.
Recitation	D	: : :	D.X.

In effect this means that in the case under consideration, spelling, second choice, was done best; Reading, third choice, was done second best and so on.

All papers were thus gone through and the following table drawn up:-

TABLE 40. RELATION BETWEEN SUCCESS AND PREFERENCE.

E = EUROPEAN
M = MAORI.

SECTION VI.(g).

Does the child like best the subject he is best at and least, the subject he is worst at?

. . . . . .

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Spelling	A	In new table	A.2.
Reading	B	: : :	B.3.
English	C	: : :	C.1.
Recitation	D	: : :	D.X.

In effect this means that in the case under consideration, spelling, second choice, was done best; Reading, third choice, was done second best and so on. All papers were thus gone through and the following table drawn up:-

TABLE 40. RELATION BETWEEN SUCCESS AND PREFERENCE.

Subject.	Reading				Arithmetic				Spelling				Drawing					Writing			Recitation				Composition				Handwork				English				Social Studies			
Rank	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X
A	38	9	8	0	73	8	1	4	44	28	9	2	48	17	2	1	6	11	4	0	2	0	3	3	2	1	1	3	21	3	6	0	2	1	3	0	27	8	5	3
B	10	20	16	1	22	22	14	5	5	29	4	2	10	42	11	2	4	18	14	0	2	4	3	3	7	8	6	9	9	29	9	2	0	10	4	3	8	10	11	5
C	4	7	27	5	15	17	16	5	1	6	14	0	5	20	22	3	3	8	18	2	1	2	7	5	2	6	22	19	7	15	28	6	0	2	19	4	2	8	31	8
D	0	3	5	14	8	5	7	42	4	4	2	9	5	5	6	13	0	3	7	14	0	0	3	42	0	4	4	80	3	2	11	12	0	2	6	20	0	3	11	49
Totals E.	28	25	30	7	52	22	16	31	28	28	17	9	25	44	21	7	10	16	24	12	3	1	6	22	6	10	15	62	22	31	30	3	2	8	12	6	24	15	29	31
M.	24	14	26	13	66	30	22	25	26	39	12	4	43	40	20	12	3	24	19	4	2	5	10	31	5	9	18	49	18	18	24	17	0	7	20	21	13	14	29	34
Grand	52	39	56	20	118	52	38	56	54	67	29	13	68	84	41	19	13	40	43	16	5	6	16	53	11	19	33	111	40	49	54	20	2	15	32	27	37	29	58	65

E = EUROPEAN
M = MAORI.

In Table 40 the rank of the mean of the marks obtained is read from the side i.e. A B C D. The choice in the subject is read from the top 1 2 3 X. Accordingly, in reading, for example, 38 children were best at it and chose it first, 20 were second best at it and chose it second, 27 were third best at it and chose it third while 14 were weak at it and marked it as the subject disliked.

The table can also be read downwards so we get the following:-

(i) 38 chose it first and were best at it.

(ii) 10 chose it first and were second best at it.

(iii) 4 chose it first and were third best at it.

(iv) 0 chose it first who were worst at it.

If the child likes best the subject he is best at, then:

A.1 will be highest in the A rank.

B.2 will be highest in the B rank.

C.3 will be highest in the C rank.

D.X will be highest in the D rank.

The following are the placings for each subject:-

Reading ...	A1, B2, C3, D.X.	4
Arithmetic ...	A1, B2 = C2, D.X.	3
Spelling ...	A1, B2, C3, D.X.	4
Drawing ...	A1, B2, C3, D.X.	4
Writing ...	A2, B2, C3, D.X.	3
Recitation ...	A3 = B2, C3, D.X.	3
Composition ..	AX, BX, C3, D.X.	2
Handwork ...	A1, B2, C3, D.X.	4
English ...	A3, B2, C3, D.X.	3
Social Studies -	A1, B3, C3, D.X.	3

Those subjects marked "4" show perfect relationship between preference and success. Those marked 3 show that three of the four choices are correctly placed and so on.

Table 41 analyses the results still further. It should be read as follows:-

73% of those whose most successful subject is reading made this their first choice.

19% of those whose second best subject was reading made this their first choice.

8% of those whose third best subject was reading made this their first choice.

0% of those whose worst subject was reading made this their first choice.

The same applies to the second choice, third choice and subject disliked.

Thus considering the latter (X) for reading we find:-

(a) 0% of those whose best subject it is, dislike it.

(b) 5% of those whose second-best subject it is, dislike it.

(c) 25% of those whose third best subject it is, dislike it.

(d) 70% of those whose poorest subject it is, dislike it

Considering each subject in some detail:-

(i) Reading. There is a high degree of influence of success on choice im this subject as will be apparent by reading the table from top to bottom. In the case of second choice it is apparent that the bulk of the cases are grouped round the second choice. The same applies to the third choice. Here we find 28 and 49 in juxtaposition. Obviously, the subject disliked (X) should show an increasing number of cases from top to bottom since the number who are best at it and dislike it would show a negative relation between success and choice. We could call reading a plus subject for influence of success.

TABLE 41. SHOWING RELATION BETWEEN CHOICE AND DEGREE OF SUCCESS (PERCENTAGE).

(ii) Arithmetic. The preference for this subject is also greatly influenced by success in it though it is interesting to note that 16% of those who are best and second best at it do not like it. We could call arithmetic a plus subject for influence.

Spelling. Here, though there is a substantial influence, it is not as marked as with the first two subjects. Note (1) the large number who are second best and who chose it first (2) the 30% who do not like it but are either best or second best at it. We could call Spelling a O- plus subject.

Drawing. The pattern is the same here and it too is a plus subject.

Writing. This subject also shows considerable influence....plus.

Recitation. Here we have such few numbers liking the subject that the results are not valid. Note however, the number who are good at it yet dislike it. Here is one subject success appears to have little influence on making it a choice. I would call this a - subject.

Composition. What was said about Recitation applies also to this subject and it is also a - subject.

TABLE 41. SHOWING RELATION BETWEEN CHOICE AND DEGREE OF SUCCESS (PERCENTAGE).

Subject	Reading				Arithmetic				Spelling				Drawing				Writing				Recitation				Composition				Handwork				English				Social Studies			
Choice	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X
Best Subject	73	23	14	0	62	15	3	7	83	42	31	15	71	20	5	5	46	28	9	0	40	0	19	6	19	5	3	3	53	6	11	0	100	7	10	0	73	28	8	5
2nd Best	19	53	28	5	19	42	37	9	9	43	14	15	15	50	27	11	31	45	33	0	40	67	19	6	63	43	18	8	22	59	17	10	0	67	12	11	22	35	19	7
3rd Best	8	17	49	25	13	33	42	9	2	9	48	0	7	24	54	16	23	20	42	12	20	33	43	9	18	31	67	17	18	31	52	30	0	13	59	15	5	28	53	12
Worst	0	8	9	70	6	9	18	75	7	6	7	9	7	6	15	67	0	7	16	88	0	0	19	79	0	21	12	72	7	4	20	60	0	13	19	74	0	0	20	76

(ii) Arithmetic. The preference for this subject is also greatly influenced by success in it though it is interesting to note that 16% of those who are best and second best at it do not like it. We could call arithmetic a plus subject for influence.

Spelling. Here, though there is a substantial influence, it is not as marked as with the first two subjects. Note (1) the large number who are second best and who chose it first (2) the 30% who do not like it but are either best or second best at it. We could call Spelling a 0- plus subject.

Drawing. The pattern is the same here and it too is a plus subject.

Writing. This subject also shows considerable influence....plus.

Recitation. Here we have such few numbers liking the subject that the results are not valid. Note however, the number who are good at it yet dislike it. Here is one subject success appears to have little influence on making it a choice. I would call this a - subject.

Composition. What was said about Recitation applies also to this subject and it is also a - subject.

Handwork. Correct pattern. A plus subject.

English. Correct pattern. A plus subject.

Social Studies. Correct pattern. A plus subject.

From the table and the analysis it would appear that sucess in the subjects has considerable influence on the child's liking for thm save in recitation and composition.

TABLE 42. RELATION BETWEEN SUCCESS AND DEGREE OF CHOICE.
(PERCENTAGE).

This table is read from left to right and is interpretd as follows:-

Reading:-

(a) 69% of those whose best subject was reading, chos it first.

(b) 16% of those whose best subject was reading, chos it second.

(c) 15% of those whose best subject was reading, chos it third.

(d) 0% of the children whose best subject it was, disike it.

Thus the validity of influence of success on degree of hoice is demonstrated by a decreasing percentage from left to right on the fist line and increasing percentage from left to right on the bottom line.

(i) Reading - This follows a characteristic pattern nd reveals a high degree of influence of success on choice.

(ii) Arithmetic. - Generally shows a characteristic patern but note that 13% of those who are best and second best at it, do nt like it.

Handwork. Correct pattern. A plus subject.

English. Correct pattern. A plus subject.

Social Studies. Correct pattern. A plus subject.

From the table and the analysis it would appear that success in the subjects has considerable influence on the child's liking for them save in recitation and composition.

TABLE 42. RELATION BETWEEN SUCCESS AND DEGREE OF CHOICE. (PERCENTAGE).

Subject	Reading				Arithmetic				Spelling				Drawing				Writing			Recitation				Composition				Handwork				English				Social Studies			
Choice	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X	1	2	3	X
Best Subject	69	16	15	0	85	9	1	5	53	34	11	2	71	25	3	1	29	52	19	0	25	0	37	38	28	15	15	42	70	10	20	0	33	17	50	0	63	18	12	7
2nd Best	2	43	34	2	35	35	22	8	13	72	10	5	15	65	17	3	16	47	37	0	17	33	25	25	23	27	20	30	18	59	19	4	0	59	24	17	24	29	32	15
3rd Best	9	16	63	12	28	32	30	10	5	28	67	0	10	40	44	6	10	26	58	6	7	13	47	33	4	12	45	39	13	26	50	11	0	8	76	16	4	16	64	16
Worst	0	14	23	64	13	8	11	68	21	21	11	47	17	17	21	45	0	.13	29	58	0	0	7	93	0	4	4	92	11	7	39	43	0	7	21	72	0	5	17	78

This table is read from left to right and is interpreted as follows:-

Reading:-

(a) 69% of those whose best subject was reading, chose it first.

(b) 16% of those whose best subject was reading, chose it second.

(c) 15% of those whose best subject was reading, chose it third.

(d) 0% of the children whose best subject it was, dislike it.

Thus the validity of influence of success on degree of choice is demonstrated by a decreasing percentage from left to right on the first line and increasing percentage from left to right on the bottom line.

(i) Reading - This follows a characteristic pattern and reveals a high degree of influence of success on choice.

(ii) Arithmetic. - Generally shows a characteristic pattern but note that 13% of those who are best and second best at it, do not like it.

(iii) Spelling, drawing and writing following the pattern and show a high degree of influence of success on preference.

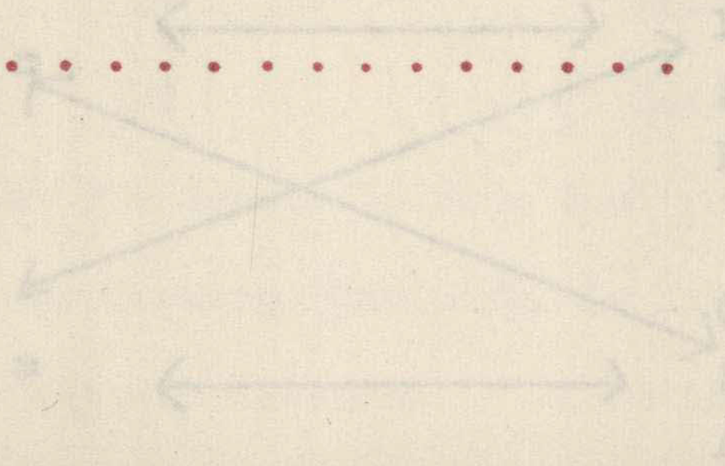
(iv) In recitation and composition there appears to be no influence of success on preference. It should be noted in connection with this that the numbers choosing the subjects are too small to give a significant figure. It is however, obvious, from the small number of cases involved that the subject is not greatly influenced by ability since if success affected preference then those who are good at the subjects would have chosen them.

(v) Handwork follows the correct pattern as does in general English and Social Studies.

Summing up results of the work on the influence of success on preference, it would appear that the child likes the subjects he does well with the exception of recitation and composition.

The moral to be drawn from the facts demonstrated by the investigation, is that every effort should be made to give the child work within his scope and work that he can succeed at. It also seems advisable to use frequent simple tests so that the child can judge his own success in his school subjects. It is noteworthy that in most of the subjects where there is the closest relation between success and preference the child is able to measure most accurately for himself the degree of success he achieves.

. . . . . .



SECTION VII. A CONSIDERATION OF THE TEACHERS' INFLUENCE ON PREFERENCE.

As previously noted in each class or school tested, the teacher was asked to indicate his own teaching preferences.

Eighteen (18) teachers filled in the questionnaire and the choices made are as follows:-

TABLE 43. TEACHERS' PREFERENCES & DISLIKES.

SUBJECT	1	2	3	X
Reading	0	0	0	0
Arithmetic	5 = 27%	2 = 11%	3 = 17%	3 = 17%
Spelling	0	0	0	0
Drawing	0	7 = 39%	3 = 17%	1 = 6%
Writing	0	1 = 6%	1 = 6%	2 = 11%
Recitation	2 = 11%	3 = 17%	0	4 = 22%
Composition	4 = 22%	1 = 6%	3 = 17%	4 = 22%
Handwork	0	0	0	4 = 22%
English	3 = 17%	2 = 11%	3 = 17%	0
Social Studies	4 = 22%	2 = 11%	5 = 27%	0
	18	18	18	18

Taking the first choices and subjects disliked only we get the following

(a) Preferences:-

Teacher		Children
Arithmetic		Arithmetic
Composition, Social Studies	=	Drawing, Spelling
English		Reading

(b) Dislikes:

Recitation, Composition	=	Composition, Social Studies
Handwork		Arithmetic
Arithmetic		Recitation

In the preceding diagram note that of the four subjects, teachers like teaching, children do not like three of these, while of the subjects teachers dislike teaching, children like one. It would appear in the main that children are not greatly influenced by the teachers' preferencces for the teaching of subjects. It is noteworthy that the teaching of composition ranks second equal in teachers' preference while it is easily the most disliked of the child's subjects.

Reading crossways only, one subject is liked by teachers and children i.e. arithmetic. There is no further correspondence between the two groups.

Turning to dislikes there is a greater relationship but the order of dislike is considerably different.

Expressed in percentage form, the following are the facts:-

L I K E S.

TEACHER		CHILDREN.	
Arithmetic	27%	Arithmetic	30%
Composition	22%	Drawing	17%
Social Studies	22%	Spelling	14%
English	17%	Reading	13%

DISLIKES.

Recitation	22%	Composition	28%
Composition	22%	Social Studies	16%
Handwork	22%	Arithmetic	14%
Arithmetic	17%	Recitation	13%

It is illuminating to say the least, to note that none of the "cultural subjects" i.e. recitation, drawing, handwork, is liked by the teachers. Indeed two of them are actively disliked. Here is a possible plea for

specialist teachers in such cultural subjects since these would presumably be masters of method in presenting these to children.

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GENERAL CONCLUSIONS & SUMMARY.

In this section the influences of intelligence, race, sex, environment and success will be summarised for each subject.

SECTION VIII. R E A D I N G.

(i) INTELLIGENCE. (a) For Europeans there is an increase in the number preferring this with the increase in I.Q. Maori children show a complete reversal of this order.

(b) In order of dislikes this decreases for Europeans while with the Maoris the middle group shows the most dislike.

(ii) RACE (a) - This has an effect on preference in that the Europeans place it second while the Maoris place it third.

(b) The Maori children show more dislike for the subject than the Europeans but in neither case is it placed in the first three of positive dislikes.

(iii) SEX (a) - As would be expected, the girls show a slightly more marked preference for the subject. The smallness of the difference is, however unexpected.

(b) On the negative side there is, as would be expected from the preferences listed above, more dislike of the subject by boys than by girls.

(iv) ENVIRONMENT. (a) - The numbers under this heading give a clear indication of the fact that country children show a stronger preference for reading than do town children.

(b) A small number show a positive dislike for the subject and these fall very evenly in two groups.

SUCCESS AT READING.

(v) There is a clear indication that success plays a strong part in the child's preference for the subject. This is indicated by the high percentage of these liking the subject best being most successful at it and by the equally high percentage of those not liking the subject who were weak in it.

CONCLUSIONS ... READING.

The increase in general in Europeans in preference for this subject with intelligence may be both cause and effect. Ability to score highly at a verbal test such as the Otis B would depend to some degree on ability to read well, so that in general the good reader would be the high scorer.

In the case of the Maori child, there appears to be no reason for the complete reversal of the order. However, what was said previously can well bear repeating i.e., the numbers showing an active liking for the subject is far too low. This may be due to a variety of causes e.g. unsuitable reading material, treating the subject as an exercise in elocution, weakness in the teaching of the mechanics at a lower level, spending too much time on a chapter of a book explaining, recapitulation, and the like. Whatever the reasons, it is felt that a drive should be made to improve the children's liking for the subject. There can be little real progress in education without a love of reading being engendered.

Concerning the influence of race the European children liking reading a little more than the Maori children, may be due to the language content and possibly that the latter are not so familiar with the objects and situations met with in their reading as the former.

Sex reading differences, which are only slightly marked, my be due to either innate differences, as for example, boys in general likingto do things more

than girls or to the content. It would be interesting to survey the reading field and note which subjects appeal most to the respective sexes.

There is also the stress still on oral reading. The diffidence of boys when singled out to perform before a group may also, play a part.

It is however, to the environmental eifferences which we must turn to find the greatest divergence of preferences. The country child's fondness for reading may be due to the lack of other leisure time occupations, to the desire to read about things which he hears about but does not see, to the lack of companions, or to the quieter nature of the life he leads. Any or all of these may be contributory factors.

The influence of success on liking or disliking the subject is very marked and one obvious conclusion from this is, the urgent need to give the child at all stages, material which he can read easily and well and also, the need for a thorough mastery of the mechanical difficulties in any set piece of reading before the child actually attempts the reading. In brief, new words likely to cause difficulty should be dealt with prior to and apart from the actual reading period.

A further suggestion is that tests should be devised and frequently used to demonstrate to the child his progress in mastering the subject. Such tests would be vocabulary score and comprehension with one word answers. The influence of tests on this and other subjects will be dealt with in subsequent sections.

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SECTION IX. ARITHMETIC.

One of the outstanding points emerging from this survey is the high ranking in preference for arithmetic. This may be due to the child's liking for some subject where he can see tangible results. For example, in this subject an answer is either right or wrong in contrast with the nebulous standards of composition.

A further influence may be the interesting and practical nature of the work in the new syllabus. The problem situations in these deal with matters with which the child is conversant and which form a part of his daily living. One is reminded here of Deweys "Learning, certainly, but living first and learning through and for that living."

Thirdly, the abstract difficulties of the old syllabus have been largely abolished and the work is now well within the child's scope.

(i) INTELLIGENCE.

(a) There is a general increase in preference for the subject with intelligence. This is particularly marked with European children, though the dombined scores for both groups show that the lower group like it less than the average group and the higher group.

(b) In both groups there is a decrease in dislike with intelligence, though it is interesting to see the comparatively high number disliking the subject. There is a strong attitude of either like or dislike to arithmetic as 44% of the total number of children expressed a preference or dislike of the 174 cases in all. If first, second, third and dislike are considered, 264 are included as expressing preference or dislike under one of the four headings.

(ii) RACE

(a) This appears to have a strong influence on preference for the subject.

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33% of Maori children as compared with 20% of Europeans chose it first. It is difficult to account for this fact and the investigator can offer no reasonable solution.

(b) In dislikes there is a similar pattern with Maoris showing a less marked dislike than Europeans.

(iii) SEX.

(a) Girls show slightly more preference for the subject though Maori boys appear to like it in a greater number of cases than European boys do.

(b) In dislikes there is more positive dislike of the subject from girls than from boys.

(iv) ENVIRONMENT.

(a) This appears to exert a fairly strong influence, town children liking the subject better than do country children. A possible explanation lies in the fact that the country children tend to like the school subjects offering leisure time occupation, e.g. reading and drawing. Arithmetic offers little to them in the way of spending their leisure.

(b) In the dislikes, the town children have a more positive attitude. So we get the position that the country children show more indifference to arithmetic.

(v) SUCCESS.

There is a high degree of influence here. 62% of those choosing it first had it as their most successful school subject, and 75% of those disliking it had it as their worst subject. Indeed the figures here as with most subjects indicate that we prefer these things we do well. Exceptions to this occur however, we will be shown in subsequent

sections. Those cases (16% in all) where the child is most successful in arithmetic and yet dislikes it, are probably due to some incident connected with the learning of the subject having an unpleasant emotional effect.

In conclusion then, it appears from the investigation that:

(a) Intelligence increases liking for the subject with increase in intelligence level.

(b) Race - Maoris show greater preference for arithmetic.

(c) Sex - Has little influence on preference for it.

(d) Environment - town children exhibit the greater liking.

(e) Success - a high degree of influence.

. . . . . .

SECTION X. S P E L L I N G.

A surprising feature in this subject is the large number actually who prefer it especially when one considers that there are more children who place it first than who place reading first. This is due to the number in the lower intelligence group expressing a preference for spelling.

(i) INTELLIGENCE

(a) In spelling, there is a decrease in preference for spelling with the increase in intelligence, though this applies more particularly to the European child than to the Maori. It is possibly due as noted previously, to the purely drill-like methods of teaching adopted, and also to the fact that the intelligent child already knows how to spell the words. There is a strong case to be made out here for pre-testing children before teaching spelling and allowing those who know the words to be free of the necessity of drill in them.

In any case, it is felt that a strong case can be made for the abolition of spelling as a separate subject and concentrating on the spelling of new words as they arise, with particular individuals.

(b) On the dislike side it appears that the higher levels of intelligence are indifferent to spelling as a subject.

(ii) RACE.

There is little influence of this factor either on preference or dislike.

(iii) SEX.

(a) Girls show a greater liking for the subject than boys. No reasonable explanation of this fact can be offered.

(b) Both groups show equal dislike of the subject though the numbers expressing an active dislike are small.

(iv) ENVIRONMENT.

Here, as for race, there is little environmental influence apparent either in the likes or the dislikes.

(v) SUCCESS.

(a) This exercises a considerable influence on the preference though it should be noted that there is a group 7%, who do the subject best and second best who do not like it. This is probably made up of those in the higher intelligence group noted previously.

From the tables the following apparent tendencies are seen:-

(a) Intelligence - as intelligence increases, preferences for spelling decreases.

(b) Race - no influence.

(c) Sex - Girls show the greater preference.

(d) Environment - no influence.

(e) Success - some influence but not so marked as with some other subjects.

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SECTION XI. DRAWING.

This subject ranks second for all groups in order of preference, and third to last in order of dislikes. It is however, significant, that nearly double the number of all the children liking this prefer arithmetic. The high place gained by drawing is due to racial factors as will appear later. One further point should be noted i.e. the investigator stressed the point that drawing included painting and colour work, when presenting the questionnaire.

(i) INTELLIGENCE.

(a) With Europeans there is a slight decrease in preference from the lowest to the highest levels of intelligence, but with Maoris, there is asmall increase from the lowest to the highest group. Taken as a gross score the percentages are approximately the same.

From these facts it is safe to assume that intelligence plays little part on the child's liking for the subject.

(b) On the dislikes side, the curious fact emerges that more Maoris dislike the subject than Europeans do. A possible explanation of this is that as the Maori child in general, excels at drawing, those few who have no flair for it have a felling of inferiority and hence dislike the subject.

(ii) RACE.

(a) The figures give a strong preference for the subject in the case of Maoris as against Europeans. This may be due to a number of causes:

(a) Innate ability, though the investigator is inclined to doubt whether the Maori has more drawing ability (innate) than the European deeming the practise effect the cause of superior ability.

(b) An escape from verbal expression in a foreign tongue to the medium of drawing as a means of expression.

(c) The joy of excelling at a form of expression at which he is highly successful thus giving a superior sense of achievement in a medium at which he excels his European peers.

(b) In dislikes the two races show almost the same number of cases disliking the subject.

(iii) SEX.

(a) This has a strongly marked influence on preference for drawing, boys preferring it in almost twice the number of cases to girls.

(b) Dislikes show an equal number disliking the subject.

In view of the sex preferences in this and other subjects, it is difficult to avoid the conclusion that girls are fonder of verbal subjects, while boys choose the manual and number subjects. This however, is conjecture only.

(iv) ENVIRONMENT.

(a) Country children show a higher number liking drawing than town children. As previously noted a possible explanation lies in the need for leisure time activities.

(b) Under dislikes however, a higher percentage of country children dislike the subject though the numbers are rather small for any significant value.

(v) SUCCESS.

The influence of success is also strong in this subject though the high numbers ranked C & D should be noted. There appears to be other factors than success in determining liking or dislike for drawing.

In conclusion then, from our tables it appears:-

(a) Intelligence - plays little part in influencing the child ih liking

or disliking drawing.

(b) Race - Maoris show a greater preference for drawing.

(c) Sex - boys like drawing better than girls do.

(d) Environment - country children show the stronger preference for it.

(e) Success has a strong influence but other factors enter in.

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SECTION 12. W R I T I N G.

The numbers showing a liking for writing, are though small, significant. In this subject also, it is doubtful whether formal writing work should be taken above the middle school level. At this stage it would probably be preferable to concentrate on remedial measures for individual cases rather than formal class drills in the subject.

(i) INTELLIGENCE.

(a) It is noticeable that with an increase in intelligence level there is a decrease in preference for writing, though the numbers liking the subject are in general small. Most of the children are indifferent to writing as a subject.

(b) On the negative or dislike side a similar pattern is found. The higher the intelligence level the greater the number of children who show a positive distaste for writing. The writer has noted frequently that the child of the higher intelligence groups is a poor writer. This is probably due to his thinking racing ahead of his ability to put down his thoughts in writing.

(ii) RACE.

(a) Race appears to have little effect on the subject though it is noted that the figures for the Europeans are higher than for the Maoris. However, they are too small to be of any real significance.

(b) On the dislike side, the numbers are almost equal but what was previously said concerning significance still applies.

(iii) SEX.

(a) This appears to exercise little influence. If anything, the

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girls show a slightly higher preference than boys.

(b) The figures for girls show that they have a less positive attitude of dislike than boys.

Again however, the figures are too small to be of significance.

(iv) ENVIRONMENT.

(a) This appears to exercise little influence though the balance is slightly in favour of the town child.

(b) On dislikes the town child shows a dislike three times as great as the country child.

Again however, the figures are too small to be of any significance.

(v) SUCCESS.

(a) This appears to have little influence on the child's preference for writing. Note the high number who are best at it and choose it second. It is however noteworthy that no child who is weak in it likes it.

In conclusion, from our tables it appears that:

Intelligence - The higher the level of intelligence the less the liking for writing.

Race, Sex, Environment - These have no effect.

Success - this has a slight effect only.

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SECTION XIII. RECITATION.

The numbers showing a liking for the subject are very small indeed. Those showing a dislike are very high, ranking the subject the fourth highest in the order of dislikes. Much has been said previously concerning this sad fact. The analysis of various influences will now be considered.

(i) INTELLIGENCE.

(a) On the preference side there is a slight increase with increase in intelligence but the figures are too small to allow valid conclusions to be drawn.

(b) On the dislike side the average group appear to have the greatest aversion to it though the higher intelligence group shows five (5) times as great a percentage disliking the subject. This makes the position concerning recitation even worse. Surely, we as teachers should be able to engender a love of the subject, in the higher intelligence group at least.

(ii) RACE.

(a) Figures are so low as to show no influence.

(b) In dislikes the figures for the Maoris are one and a half times as great as for the Europeans. The investigator would make a plea for a closer study of this difference and an attempt to make the subject attractive to a people whose lore teems with fine poetry and whose speakers are fine poetic orators.

(iii) SEX.

(a) The figures are too low on the preference side though girls show a slightly higher preference than do boys.

(b) Turning to the dislike side, there is a considerable influence of

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sex on this, boys showing a far greater aversion to the subject. This is probably due to boys regarding poetry as something rather effeminate (a real horror at this age level!) and this attitude could be overcome by teaching a more suitable type of poem e.g. ballads, extracts from epic poems and other works of this type.

A second possible cause is the dislike boys have at this age of showing their feelings. Thus it might be advisable to cut out individual recitation in favour of choral speaking. There are possibly a number of other causes of this attitude of positive dislike for the subject by boys, but it is possible that the two given are the major ones.

There is a further point namely, that from the infants and through the lower school, the boys are taught by women and there is a possible tendency on the part of the latter to teach poetry more suitable for girls.

(iv) ENVIRONMENT.

The figures show that this exercises no influence either on likes or dislikes.

(v) SUCCESS.

This has no influence at all. The number of those who are in groups A, B, C are high showing that whether a child is successful at recitation or not, he may still show a dislike of the subject.

In conclusion, from our tables, it appears that the influence of the various factors is as follows:-

Intelligence - the average group shows the greatest distaste for the subject though the figures are high for all groups.

Race - Maoris show greater distaste than Europeans.

Sex - Boys dislike recitation more than girls do.

Environment - No influence.

Success - No influence.

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SECTION XIV. COMPOSITION.

In this subject, as with recitation, the figures for those disliking the subject are highly significant. This subject easily heads the list with one hundred and eleven children showing positive distaste for the subject as compared with eleven who show any liking for it.
Suggestions for improving the position will be dealt with as the analysis proceeds.

(i) INTELLIGENCE.

(a) This appears to have little influence though the highest percentage of those preferring the subject falls within the average group.

(b) In dislikes again, there appears to be little influence, the numbers being evenly spread through all groups.

(ii) RACE.

This has no influence as on both the like and dislike side the numbers are almost equal.

(iii) SEX.

(a) This exercises no influence on either likes or dislikes numbers for both boys and girls being approximately the same.

(iv) ENVIRONMENT.

(a) This appears to exercise little influence on liking for the subject.

(b) In dislikes it is noticeable that the town child shows far greater aversion to the work than the country child. The writer can offer no explanation of this curious fact.

(v) SUCCESS

From the table it can be seen that the influence of this factor is negligible. From Table 42 note the following points:-

(a) 42% of those whose best subject it is, express aversion to it.

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(b) 30% of those whose second best subject it is, express dislike.

Note also, that 92% of those who dislike the subject are worst at it in school work.

It appears then, that while success at composition has little influence on the child's liking for the subject, the converse i.e. lack of success has considerable influence on the child's dislike.

The great dislike shown for composition is a matter which requires some consideration and investigation. First we should enquire why we teach the subject as such. Secondly, there should be an understanding of the difficulties involved. For example, in writing a composition, the child has to bear in mind, thought, content, writing, spelling, grammatical construction and the finished product is supposed to be perfect in all these aspects. The investigator would ask how many adults could sit down and write an essay on an unfamiliar topic, perfectly written, punctuated, free from alterations, and worth reading? Very few, the writer considers. Yet the child is expected to do all these things! It is felt that in view of all these factors, the writing of the rough draft copy first, is justified, so that writing as a subject and composition as a subject are not confused.

In summing up, the following conclusions are drawn as to the influence of the various factors.

Intelligence - has no influence on either preference or dislikes.

Race and Sex - no influence.

Environment - town children dislike it far more than country children do.

Success - lack of success has considerable influence on the child's dislike of the subject.

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SECTION XV. HANDWORK.

A surprising feature here is the small number of children who like the subject, 10% of the total, also the relatively large number disliking the subject. It is felt that the subject must be either badly taught, irregularly taken, poorly supplied with materials, of such a nature as to be uninteresting to the child. Any or all of these factors may be the causeof its low popularity.

Turning now to the influence of the relative factors -

(i) INTELLIGENCE -

(a) Surprisingly enough, the higher intelligence groups show the greatest preference for the subject. This is in clear contrast to the usually accepted belief. Does the intelligent child turn to this form of activity as a relief from the pressure of mental work?

(b) In the dislikes the average group show the geatest aversion to the subject.

(ii) RACE -

(a) Here another surprising point emerges - European children show a greater preference for handwork than do Maori children. The reader should consult what was previously said on this (Page).

(b) Considering dislikes we find that four times as many Maoris dislike it. This fact is in accord with Section (a) above.

Again the investigator has no explanation to offer save that the Maori child does handwork suitable for Europeans. It was found while teaching in Maori schools some years previously, that the introduction of native arts and crafts started an intense interest in the subject on the part of the Maori children.

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(iii) SEX.

This has no influence as figures for like and dislike are almost identical.

(iv) ENVIRONMENT.

This surprisingly enough, has very slight influence either on likes or dislikes. Yet it is felt that in view of the limited leisure occupations of the country child the school has failed. In the country surely one of the basic contributions to the child's happiness should be a hobby in and through which he can express himself. It is felt that the school should do more to develop this 'hobby attitude' through handwork.

(v) SUCCESS.

The pattern for this is perfect - in other words, there is almost perfect correlation between success and preference. The moral here of course, is to give the child handwork he can do well. For example, a girl may be good at knitting, but poor at embroidery. There would be then, every excuse for dropping embroidery in favour of knitting. But the objection might be made that the child then might never learn to embroider. The answer to this is that it does not matter, as the aim is to develop first a hobby and second improvement of co-ordination of hand and eye through that hobby.

In summing up the indicated influence of the factors are as follows:-

Intelligence - the higher the intelligence level the greater the preference for handwork.

Race - European children show a greater preference for handwork.

Sex - No influence.

Environment - No influence.

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Success - The important factor in the child's preference for the subject.

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ENGLISH.

Throughout this subject, the numbers liking or disliking it, are so small as to render any conclusions drawn invalid.

The only conclusions which can be drawn are:-

(a) The children are indifferent to the subject.

(b) The new approach and new textbooks have had no influence on the position.

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SECTION XVII SOCIAL STUDIES.

The interesting facts here are the relatively small number choosing the subject as their preference, and the large number disliking the subject. The subject in order of preference ranks sixth, and in order of dislikes ranks second.

In this, as in no other subject, a large variety of teaching aids are available including such aids as the talkie-projector, film strip projector, radio, books, magazines, pictures and so on in endless variety. Yet in spite of all this and a new and interesting sullabus, the subject is highly unpopular. The possible causes of this are:

(a) The teaching aids are not properly tied in to the subject. To the child the film is still the film and it is not connected with his social studies lesson.

(b) The work is too nebulous and gives the child nothing to 'bite on'. At present, the teaching and scheme are in a chaotic condition and few teachers have evolved a synthetised and continuous scheme. The child is presented with a hotch potch of information and there is no organisation of knowledge.

Turning now to the various influences:

(i) INTELLIGENCE -

The figures obtained show that there is a progressive increase in the numbers preferring the subject with a rise in the intelligence level. It is possible that the lower intelligence group find difficultyin organising the material and in getting an adequate picture of the subject. Properly presented the subject matter should be of intrinsic interest to all groups, and should present no difficulties in either assimilation

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or reproduction.

On the dislike side, it will be noted that the highest intelligence group shows the highest percentage disliking the subject.

It would appear from these two sets of facts that a child has either a positive or negative set towards the subject, which is the determining factor rather than intelligence.

(ii). RACE.

European children show a higher degree of preference than Maori children, though dislikes are about even in number. In neither race is the subject placed in the first three choices. The higher preference shown by European children, is due probably to a firmer basis of general knowledge to commence with, and secondly, to the remoteness of the subject matter from the Maori child's life.

(iii) SEX.

Under this influence we have a valid result, - the boys' preference for the subject being three times that of girls.

A possible cause is that Social Studies deals so largely with the doings of men - of heroes rather than heroines, of a man's world rather than a woman's world, of men's interests rather than women's.

It is difficult to see how the subject matter could be differently organised.

(iv) ENVIRONMENT.

Town children show a greater preference for the subject than do country children. Again familiarity with the subject matter is probably the main factor here.

(v) SUCCESS.

There is a fairly high degree of relationship here. This is particularly

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marked if the dislikes are considered.

In general it would appear that the subject is not as well liked as it should be, and it is considered that the adoption of one or all of the following means would raise the subject in the list of preferences:-

(a) Better organisation of the subject matter.

(b) Closer integration of teaching aids with the subject.

(c) Use of teaching - testing material so that the child is able to gauge for himself his skill in mastering the subject matter. Such material would consist of such things as blank maps to fill in; one word answer questionnaires.

In summing up the indications of the influence of the factors are:-

Intelligence - There is a rise in preference with a rise in intelligence.

Race - Slightly higher preference by Europeans.

Sex - A considerable influence. Boys showing a marked preference as compared with girls.

Environment - Town children show slightly higher preference.

Success - High degree of influence.

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SECTION XVIII.

A NOTE ON

BIBLIOGRAPHY AND THESIS.

The investigator, after an extensive search of the College Library, has been unable to find any trace of a similar work, so that this thesis with all its defects is in the nature of a pioneer investigation.

The main defect of the work is that there are insufficient cases considered. The conclusions reached from the data are trends only. At least, 1,000 further cases would be needed to establish definite conclusions.

A second major difficulty has been the complete control of all the variables. This has been done to the best of the writer's ability. However, in certainn cases, notably with the influence of intelligence, complete isolation of the factors has proved impossible.

The simple form of presentation of data has been adopted, as it was felt that this was what the data required in a thesis of this nature. Hence, correlation and factorial analysis have been avoided.

Finally, further investigation is needed

(a) To confirm or amend the conclusions in this study,

(b) To ascertain what changes in interests if any, take place at different age levels.

If this investigation stimulates such further research into the highly complex nature of the child's interests it will have achieved a worthy end.

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