

A STUDY TO DETERMINE THE DEGREE OF MASTERY OF THE MINIMUM  
ESSENTIALS OF GRAMMAR IN THE JUNIOR HIGH SCHOOL GRADES  
MANHATTAN CITY SCHOOLS

by

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## PURPOSE

After having taught several years in the English department of the Manhattan Junior High School, this study was undertaken for the purpose of measuring the amount and kind of learning that might be expected of junior high school students. The findings may prove suggestive as to the changes in content and method that would be effective in promoting better learning.

## INTRODUCTION

During the summer of 1932 a test was compiled covering the minimum essentials of grammar for the junior high school classes. In compiling this test the cooperation of the teachers of English in Manhattan Junior High School and of the Department of English of Kansas State was of great value. This study was undertaken to serve as a basis for testing and comparing the knowledge of the minimum essentials of grammar in seventh, eighth, and ninth grades. The students were tested on material they had had in the previous year's work in order to make a study of the total year's learning and to ascertain the difference in degree of learning, if any, due to repetition.

Although this test is not standardized, it represents the opinion of a large group of teachers of English as to the range of content of subject matter for each of the three grades of junior high school.

The results secured in this test could not be taken as establishing norms although 483 students participated in the study.

## MATERIALS AND PROCEDURE

The first division of the test which is for the seventh grade was composed of fourteen parts which covered the following: the formation of plurals, recognition of sentences, simple analysis (that is, recognition of complete subject and complete predicate), classification of sentences as to use, recognition of the parts of speech, agreement of verbs, correct verb forms, case of pronouns and nouns, formation of possessives, correct use of certain verbs (such as sit, set; lie, lay; rise, raise), punctuation, capitalization, and the recognition of personal pronouns. This part of the test was built to include one hundred points.

The second division of the test consisted of seven parts, new, which included new material taught in the eighth grade. This material included the classification of sentences as to structure, the recognition and identification of dependent clauses together with reasons, the tense of verbs, the person of nouns and pronouns with reasons, selection of the correct form of verbs and

reasons for choice, the recognition of case of underlined nouns and pronouns with reasons, and the recognition of indefinite pronouns. This part of the test was built to include seventy-four points.

The third division consisted of seven parts which covered the new material taught in the ninth grade. This division contained material more difficult for students to master than that of the other parts. These items included the ability to recognize the difference between phrases and clauses, ability to classify different kinds of pronouns, comparison of adjectives and adverbs, recognition and identification of verbals (gerunds, participles, and infinitives), voice of verbs, mood of verbs, and the punctuation and capitalization of several paragraphs. This part of the test was built to include 126 points.

As the grammar work was completed in each grade these tests were given to the students of Manhattan Junior High School. A total of 463 students took them. Division one which consisted of fourteen parts was given to the seventh grade. One hundred and seventy-nine pupils took the test. The perfect score was 100 points. The highest score made was ninety-seven points. One student made the ninety-seven

points; two made forty-four points, the lowest score. The median was seventy-four points.

The test which was given to the 123 eighth grade students included division one for the seventh grade and division two which covered new material learned in the eighth grade. The total number of possible points was 174. The highest score was 163 made by one student and the lowest score was sixty-five made by one student. The median was 117 points.

One hundred and eighty-one ninth grade students took the test which included divisions one, two, and three. The largest number of students in the ninth grade is accounted for by the students who come to Manhattan Junior High School from the rural districts. In the three divisions of the test there was a possibility of 300 points. One student made 295 points. The lowest score made by one student was eighty-five points. The median was 206 points.

A copy of the test in divisions for the seventh, eighth, and ninth grades follows.



## SEVENTH GRADE

- I. Write the plural of the following:
1. loaf
  2. cuff
  3. lady
  4. child
  5. mouse
  6. church
- II. Some of the following sentences are correct and some are incorrect. Place a plus sign (+) before the sentences that are incorrect:
1. Henry, he has gone to school.
  2. Mary likes the work.
  3. This here pen is mine.
  4. She told me where John had gone, but I have forgotten.
  5. He owns two things. A car and a watch.
  6. John likes to play tennis he plays every day.
- III. Underline the complete subject with one line and complete predicate with two lines.
1. The day was bright.
  2. The girls are playing ball.
  3. Beautiful pink roses grow in the garden.
  4. Have you forgotten your book?
  5. The great bell rang clearly.
- IV. Indicate by writing in the blank before the sentence whether it is declarative, interrogative, imperative, or exclamatory.
1. \_\_\_\_\_ Spring has come at last.
  2. \_\_\_\_\_ Ask Mary to go with us.
  3. \_\_\_\_\_ Hold on tight, boys!

4. \_\_\_\_\_ Which is your brother?  
 5. \_\_\_\_\_ Let us try hard to win.  
 6. \_\_\_\_\_ William is my brother.

V. Indicate the part of speech of each word in the following sentence: Mary spoke quietly to her little brother and sister.

1. \_\_\_\_\_ Mary      6. \_\_\_\_\_ little  
 2. \_\_\_\_\_ spoke      7. \_\_\_\_\_ brother  
 3. \_\_\_\_\_ quietly      8. \_\_\_\_\_ and  
 4. \_\_\_\_\_ to      9. \_\_\_\_\_ sister  
 5. \_\_\_\_\_ her

VI. In the following sentences draw a line through the incorrect form in parenthesis:

1. An apple and an orange (was, were) on the table.
2. We (was, were) going to the show.
3. John (doesn't, don't) want to go.
4. There (was, were) many cherries on the tree.
5. She is the (taller, tallest) of the two girls.
6. Harry jumped (in, into) the river.
7. We are (sure, surely) proud of your success.
8. Boys and girls grow (rapid, rapidly).
9. The team played (well, good).
10. She looks (beautiful, beautifully).
11. (Almost, most) all the boys were there.
12. (Was, were) you going to school?

VII. In the blank space in each sentence, place the correct form of the verb which appears in the margin to the left of the sentence.

- |       |                             |
|-------|-----------------------------|
| break | 1. His arm was _____.       |
| come  | 2. John _____ last evening. |
| do    | 3. He _____ the work.       |

- drink 4. Harry \_\_\_\_\_ tea and coffee.  
 run 5. As James \_\_\_\_\_ across the street,  
 his mother called him.  
 see 6. I have \_\_\_\_\_ the play.  
 choose 7. The debaters were \_\_\_\_\_ from the  
 senior class.  
 write 8. The book was \_\_\_\_\_ in 1934.  
 freeze 9. He was almost \_\_\_\_\_.  
 eat 10. I \_\_\_\_\_ my breakfast rapidly.

VIII. Underline the correct form of the pronoun in parenthesis.

1. It was (she, her) who called you.
2. Bring the book to (me, I).
3. I saw (him, he) yesterday.
4. (We, us) girls are not going.
5. The letter was for John and (me, I).

IX. To the right of the sentence give the case of the underlined words.

1. My work is done.
2. I wrote a letter.
3. The girl's dress was blue.
4. He is my friend.
5. We sent the letter to John.

X. In the following sentences write in the blank before the sentence the possessive form of any word that you think is a possessive.

1. \_\_\_\_\_ The girls coat is blue.
2. \_\_\_\_\_ This is the mens golf course.
3. \_\_\_\_\_ Johns hat is gray.
4. \_\_\_\_\_ The boys coats are tweed.

- XI. Underline the correct form of the verb.
1. John (set, sit) down.
  2. There lie his books (lay, lie).
  3. (Raise, rise) your hands, children.
  4. (Sit, set) the bouquet on the table.
  5. (Lie, lay) down and rest.
- XII. The sentences below lack punctuation marks. You are to supply proper punctuation.
1. Harry close the door.
  2. I am reading Juckleberry Finn.
  3. So I cannot go.
  4. The program she said was well prepared.
  5. The house was dark gloomy silent.
- XIII. Insert capitals where they are needed.
1. He went to europe.
  2. They travelled in the east.
  3. I am going to colorado next winter.
  4. He is doctor long.
  5. The bible is a good piece of literature.
  6. They read stories about indians.
  7. He is a graduate of Manhattan high school.
  8. I am studying english and geography.
- XIV. Underline pronouns and tell the kind.
1. Margaret wrote to her.
  2. You may go.
  3. She is writing.
  4. The book belongs to them.
  5. We are working.

## EIGHTH GRADE

- XV. Some of the following sentences are simple, some compound, others complex. Identify each in the margin to the left of sentence.

- \_\_\_\_\_ 1. We were ready but we did not go because it rained.
- \_\_\_\_\_ 2. Tyranny begins where law ends.
- \_\_\_\_\_ 3. Andrew is my brother.
- \_\_\_\_\_ 4. People do not lack strength but they lack will.
- \_\_\_\_\_ 5. Great spenders are bad lenders.
- \_\_\_\_\_ 6. Put your heart into your work and the sky will clear.

- XVI. Underline the dependent clauses and identify them as adverbial, adjective, or noun. Explain reason.

1. The girl whom you see is my sister.
2. Though I do not understand, I obey.
3. I fear that it will rain.
4. He prayeth best who loveth best.
5. What they say is true.
6. Play while we may.

- XVII. Give the tense of the underlined verbs.

1. I shall call. Tense
2. There goes David.
3. They returned Monday.
4. I am going.
5. She has called often.
6. Tom will have called.
7. They had worked the problems.

XVIII. Indicate in the margin at the left the person of the words underlined and give reason.

- Reason
- \_\_\_\_\_ 1. Mother loves her child.
- \_\_\_\_\_ 2. We will treat you well.
- \_\_\_\_\_ 3. Harry come here.
- \_\_\_\_\_ 4. He has worked the problem.
- \_\_\_\_\_ 5. The house belongs to us.
- \_\_\_\_\_ 6. She is writing a letter.

XIX. Choose the proper form of the verb and give a reason for your choice.

1. He and John (is, are) here.  
Reason
2. Each of the boys (is, are) ready.  
Reason
3. Neither pupils nor teachers (has, have) to go.  
Reason
4. The captain, with all his crew, (was, were) saved.  
Reason
5. Neither friends or relatives (was, were) invited.  
Reason
6. One of the other of us (is, are) mistaken.  
Reason

XX. Give the case of the underlined words and the reason for the case. Example: The pen is mine.  
Case - Nominative. Reason - Subject of verb 'is.'

1. I wrote a letter.  
Case Reason
2. My work ideal is gone.  
Case Reason

- |    |                                |        |
|----|--------------------------------|--------|
| 3. | He read the <u>book</u> .      |        |
|    | Case                           | Reason |
| 4. | They sent for <u>Thomas</u> .  |        |
|    | Case                           | Reason |
| 5. | Give every <u>man</u> his due. |        |
|    | Case                           | Reason |
| 6. | <u>John's</u> hat is lost.     |        |
|    | Case                           | Reason |
| 7. | She is my <u>friend</u> .      |        |
|    | Case                           | Reason |

XI. Underline the indefinite pronouns found in the following sentence:

1. Many are called, but few are chosen.
2. Who is knocking?
3. All came in together.
4. Each came bearing a palm leaf.
5. None is so blind as he who will not see.

## NINTH GRADE

- XXII. Distinguish between the phrases and the dependent clauses in the following sentences. Underline the phrases with one line, the clauses with two lines.
1. In the best books great men talk to us.
  2. When industry goes out of the door, poverty comes in at the window.
  3. Green leaves grew on the trees.
  4. I heard this interesting story in England.
  5. The man who lives across the street came from Louisiana.
  6. They beheld a broad, blue lake, which filled the great valley.
- XXIII. Underline and identify the pronouns in the following sentences:
1. We may try and yet fail.
  2. What are you doing?
  3. They say he is wealthy.
  4. That is mine.
  5. The girl who came today is my friend.
  6. I have just read "Treasure Island", which I found very interesting.
- XXIV. Give the comparative and superlative degrees of the following adjectives and adverbs:
- | Positive      | Comparative | Superlative |
|---------------|-------------|-------------|
| 1. near       |             |             |
| 2. rapidly    |             |             |
| 3. good       |             |             |
| 4. slowly     |             |             |
| 5. little     |             |             |
| 6. such       |             |             |
| 7. cheerfully |             |             |
| 8. bad        |             |             |



- XXV. Underline and identify the gerunds, participles, and infinitives found in the following sentences: Example - I expect to enjoy the play. Infinitive.
1. To be useful is my aim.
  2. I had been hurrying through my work.
  3. His occupation, reading china, is interesting.
  4. I am tired of doing this.
  5. The canning process is fairly simple.
  6. Houses to rent are scarce.
  7. His coming today was unexpected.
  8. I do not like your giving up.
  9. I came here to work.
  10. Having finished our work we had a short time for play.
- XXVI. Underline the verbs in the following sentences, and give the voice of each. Explain.
1. He gave me a reception.
  2. He took good care of us.
  3. We were given a reception.
  4. You were called for.
  5. They made him president.
  6. David loved Jonathan.
- XXVII. Underline the verbs in the following sentences, give the mood. Explain how you know the verb is in the indicative, imperative, or subjunctive mood. Example: Come here at once. Imperative, a command.
1. Sit down if you please.
  2. He came last night.

3. God bless us all.
4. What if you were I?
5. Let us try to win, boys.
6. I fear lest it fail.
7. She wrote the book.

XXVIII. Insert the correct punctuation and capitalization necessary in the following paragraphs:

Two brothers who had inherited a piece of land quarreled and quarreled about how it should be divided they even came to blows a neighbor finally persuaded them to submit their dispute to a certain man noted for his good judgment and his honesty.

Do you both agree asked the arbitrator when they had shown him the property to abide by my decision

We do they replied then you he said turning to one of the brothers shall draw line through the field dividing it precisely as you think it should be divided excellent exclaimed the one thus addressed and he proceeded to draw the line

And now you continued the arbitrator turning to the other brother who was scowling at him may have whichever portion you prefer

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The results of the test as given to the 179 seventh grade pupils are herein shown. The mean for the grade was found by dividing the total number of points made on the test by the number of pupils taking the test. The total number of points 13,030 divided by 179 equals 72.23 mean.

TABLE I  
RESULTS OF TEST  
SEVENTH GRADE

Number of pupils taking test: 179      Possible Points: 100

Parts	Points Made	Number Making Pupils	Pupils Points	Parts	Points Made	Number Pupils	Pupils Points
I	5	151	755	V	9	46	414
	4	11	44		8	29	232
	3	10	30		7	29	203
	2	2	4		6	25	150
	1	2	2		5	22	110
	0	3	0		4	14	56
II	6	70	420	3	4	12	
	5	42	210	2	3	6	
	4	30	120	1	3	3	
	3	17	51	0	4	0	
	2	13	26	VI	12	31	372
	1	3	3		11	48	528
0	4	0	10		39	390	
III	10	85	850		9	20	180
	9	67	603		8	16	128
	8	12	96		7	7	49
	7	6	42	6	1	6	
	6	2	12	5	4	20	
	5	6	30	4	2	8	
	4			3	3	9	
	3			2			
	2			1	2	2	
	1			0	6	0	
0	1	0	VII	10	53	530	
IV	6	20		120	9	45	405
	5	68		340	8	31	248
	4	29		116	7	28	196
	3	28		84	6	13	78
	2	17		34	5	4	20
	1	13		13	4	3	12
	0	4		0	3	1	3
					2		
					1	1	1
				0			

Parts	Points Made	Number Making Pupils	Pupils Points	Parts	Points Made	Number Making Pupils	Pupils Points
VIII	5	43	215	XIII	8	12	96
	4	77	308		7	61	427
	3	36	108		6	70	420
	2	14	28		5	26	130
	1	1	1		4	7	28
	0	8	0		3	2	6
IX	5	20	100	2	1	2	
	4	18	72	1			
	3	13	39	0			
	2	19	38	XIV	10	9	90
	1	17	17		9	15	135
	0	92	0		8	15	120
X	4	42	168		7	14	98
	3	53	159		6	115	30
	2	8	16		5	7	565
	1	5	5	4	1	4	
	0	71	0	3			
	XI	5	30	150	2		
4		77	308	1			
3		41	123	0	3	0	
2		19	38	XII	5	43	215
1		8	8		4	41	164
0		4	0		3	46	138
XII	5	43	215		2	22	44
	4	41	164		1	17	17
	3	46	138		0	10	0
	2	22	44				
	1	17	17				
	0	10	0				

Mean: 72.23

Median: 74

From the results of the test given to the eighth grade the mean for parts 1-14 inclusive which is seventh grade material was found to be 79.70. Thus in comparing the mean of the seventh grade over the same material a slight improvement of 7.47 points was shown. Repetition of material tends to fix that material in the minds of the students. The value of repetition in the learning process is clearly shown. The mean for parts 15-21 of the eighth grade test which covered new material was 37. The mean for the entire test taken by the eighth grade was 117.52 points as compared with 72.23 of the seventh grade, an increase of 45.29 points. The detailed results for the test are given in the following table.

TABLE II  
RESULTS OF TEST  
EIGHTH GRADE

Number of Pupils taking test: 103 Possible Points: 174

Parts	Points Made	Number Pupils Taking	Pupils Points	Parts	Points Made	Number Pupils Taking	Pupils Points
I	5	108	540	V	9	55	495
	4	10	40		8	23	184
	3	3	9		7	15	105
	2	1	2		6	17	102
	1				5	10	50
	0	1	0	4	1	4	
				3	1	3	
II	6	48	288	2			
	5	35	175	1			
	4	24	96	0	1	0	
	3	9	27	VI	12	28	336
	2	5	10		11	28	308
1			10		28	280	
0	2	0	9		15	135	
			8		11	88	
III	10	48	480	7	7	49	
	9	33	297	6	1	6	
	8	19	152	5	1	5	
	7			4	1	4	
	6	3	18	3	1	3	
	5	4	20	2	1	2	
	4	6	24	1			
	3	4	12	0	1	0	
	2			VII	10	53	530
	1	1	1		9	26	234
	0	5	0		8	23	184
			7		9	63	
			6		4	24	
IV	6	57	342	5	1	5	
	5	33	195	4	2	8	
	4	12	48	3	1	3	
	3	10	30	2	2	4	
	2	2	4	1	1	1	
	1	1	1	0	1	0	
	0	2	0				

Parts	Points Made	Number Making Pupils	Pupils Points	Parts	Points Made	Number Making Pupils	Pupils Points
VIII	5	41	205	XIV	10	35	350
	4	47	188		9	20	180
	3	20	60		8	11	88
	2	15	30		7	6	42
	1				6		
	0				5	39	195
IX	5	25	125		4	4	16
	4	36	144		3	3	9
	3	17	51		2	2	4
	2	15	30		1		
	1	9	9		0	4	0
	0	21	0	XV	6	27	162
X	4	44	176		5	20	100
	3	57	171		4	35	140
	2	11	22		3	26	78
	1	4	4		2	10	20
	0	7	0		1	3	3
				0	2	0	
XI	5	46	230	XVI	18	3	54
	4	47	178		17	2	34
	3	19	57		16	5	80
	2	6	12		15	1	30
	1	3	3		14	5	70
	0	2	0		13	3	78
XII	5	34	170		12	8	96
	4	32	128		11	4	44
	3	38	114		10	10	100
	2	10	20		9	7	63
	1	6	6		8	3	24
	0	3	0	7	8	56	
XIII	8	47	376	6	15	90	
	7	40	280	5	7	35	
	6	27	162	4	11	44	
	5	7	35	3	8	24	
	4	1	4	2	9	18	
	3	1	3	1	2	2	
	2			0	8	0	
	1						
	0						

Parts	Points Made	Number Making Pupils	Pupils Points	Parts	Points Made	Number Making Pupils	Pupils Points
XVII	7	8	56	XX	14	9	126
	6	10	60		13	8	78
	5	19	95		12	6	72
	4	24	96		11	8	88
	3	40	120		10	6	60
	2	12	24		9	5	45
	1	4	4		8	11	88
	0	6	0		7	10	70
					6	9	54
XVIII	12	20	240		5	8	40
	11	4	44		4	15	60
	10	15	150		3	5	15
	9	5	45		2	6	12
	8	3	24		1	6	6
	7	5	35		0	13	0
	6	10	60				
	5	9	45	XXI	5	40	200
	4	3	12		4	27	108
	3	9	27		3	33	99
	2	27	54		2	10	20
	1	4	4		1	9	9
	0	9	0		0	4	0
XIX	12	2	4				
	11	4	44				
	10	3	30				
	9	5	45				
	8	8	64				
	7	9	63				
	6	16	96				
	5	17	85				
	4	28	112				
	3	12	36				
	2	17	34				
	1	2	2				
	0						

Mean: 117.52  
Median: 117



In the ninth grade the test included the three divisions as shown in table three. The mean for parts 1-14 was 84.13, showing an increase of 4.43 points as compared with the eighth grade mean on the same material. This was not as great an increase as was found between the seventh and eighth grades. Compared with the seventh grade mean over the same parts there was an increase of 11.90 points. Again a gain in knowledge through repetition was found. The mean for parts 15-21 in the ninth grade was 48.18 points as compared to the eighth grade mean of 37 points. This showed a gain in learning and retention of material of 11.18 points. The mean for parts 22-28 inclusive which was over new material learned in the ninth grade was 72.08. The mean for the entire test taken by the ninth grade was 204.63. The detailed results of the test follow.

TABLE III

RESULTS BY TEST  
NINTH GRADE

Number of Pupils taking test: 181 Possible Points: 300

Parts Made	Points Making Pupils	Number Pupils	Pupils Points	Parts Made	Points Making Pupils	Number Pupils	Pupils Points
I	5	159	795	V	9	112	1008
	4	16	64		8	29	232
	3	4	12		7	16	126
	2	2	4		6	13	78
	1				5	5	25
	0				4	3	12
					3		
II	6	88	528		2		
	5	57	285		1	1	1
	4	16	64		0		
	3	8	24	VI	12	45	540
	2	2	4		11	49	539
	1	7	7		10	46	460
	0	3	0		9	20	180
					8	7	56
I II	10	122	1220		7	2	14
	9	10	90		6	1	6
	8	19	152		5	5	25
	7	3	21		4		
	6	7	42		3		
	5	5	25		2		
	4	6	24		1		
	3	2	6		0		
	2	1	2	VII	10	111	1110
	1	2	2		9	45	405
	0	4	0		8	13	104
					7	7	49
IV	6	85	270		6	5	30
	5	69	345		5		
	4	19	76		4		
	3	6	18		3		
	2	1	2		2		
	1	1	1		1		
	0				0		

Parts	Points Made	Number Pupils Making	Pupils Points	Parts	Points Made	Number Pupils Making	Pupils Points
VIII	5	72	360	XIV	10	47	470
	4	85	340		9	27	243
	3	17	51		8	13	104
	2	3	6		7	8	56
	1	2	2		6	8	48
	0	2	0		5	58	290
IX	5	39	195		4	2	8
	4	68	252		3	2	6
	3	35	105		2	5	10
	2	17	34		1	5	5
	1	13	13	0	6	0	
	0	14	0	XV	6	54	324
X	4	77	308		5	38	190
	3	60	180		4	51	204
	2	16	32		3	23	69
	1	10	10		2	11	22
	0	18	0		1	3	3
				0	1	0	
XI	5	64	420	XVI	16	9	162
	4	61	344		17	4	68
	3	33	99		16	8	128
	2	9	18		15	9	135
	1	2	2		14	12	168
	0	2	0		13	10	130
XII	5	68	340		12	10	120
	4	58	232		11	11	121
	3	46	144		10	10	100
	2	5	10		9	6	54
	1	2		8	25	200	
	0			7	15	105	
XIII	8	91	728	6	19	144	
	7	39	273	5	7	35	
	6	28	156	4	8	32	
	5	12	60	3	10	30	
	4	9	36	2	3	6	
	3	1	3	1	3	3	
	2			0	3	0	
	1	1	1				
	0	2	0				

Parts	Points Made	Number Making Pupils	Pupils Points	Parts	Points Made	Number Making Pupils	Pupils Points
XVII	8	7	56	XX	14	11	294
	7	19	153		13	14	182
	6	25	150		12	33	396
	5	32	160		11	9	99
	4	55	220		10	15	150
	3	30	90		9	11	108
	2	9	18		8	11	88
	1	2	2		7	15	105
	0	2	0		6	9	54
					5	6	30
XVIII	12	44	528		4	8	32
	11	7	77		3	2	6
	10	19	190		2	11	22
	9	7	63		1	3	3
	8	5	40		0	11	0
	7	11	77				
	6	11	66	XXI	5	42	210
	5	6	30		4	45	180
	4	10	40		3	59	177
	3	14	42		2	20	40
	2	13	26		1	7	7
	1	10	10		0	8	0
	0	24	0				
XIX	12	28	336	XXII	9	20	180
	11	20	220		8	15	120
	10	20	200		7	11	77
	9	8	72		6	31	186
	8	28	224		5	27	135
	7	11	77		4	10	40
	6	10	60		3	15	45
	5	14	70		2	20	40
	4	17	68		1	9	9
	3	9	27		0	12	0
	2	6	12				
	1	5	5				
	0	5	0				

Parts	Points Made	Number Making Pupils	Pupils Points Points
XXIII	16	8	126
	15	11	165
	14	9	128
	13	9	117
	12	23	276
	11	15	164
	10	15	150
	9	18	162
	8	20	160
	7	9	63
	6	12	72
	5	9	45
	4	3	12
	3	1	3
	2	1	2
	1	2	2
	0	16	0
XXIV	16	18	288
	15	5	75
	14	39	546
	13	6	78
	12	38	456
	11	7	77
	10	20	200
	9	4	36
	8	8	64
	7	1	7
	6	6	36
	5	2	10
	4	3	12
	3		
	2	4	8
	1	1	1
	0	24	0

Parts	Points Made	Number Making Pupils	Pupils Points Points
XXV	20	7	140
	19	3	57
	18	3	54
	17	3	68
	16	10	160
	15	11	165
	14	6	112
	13	12	156
	12	13	156
	11	8	88
	10	10	100
	9	5	45
	8	6	48
	7	14	98
	6	23	138
	5	9	45
	4	4	16
	3	1	3
	2	4	8
	1	10	10
	0	18	0
XXVI	12	56	672
	11	18	198
	10	9	90
	9	15	135
	8	11	88
	7	2	14
	6	28	168
	5	11	55
	4	7	28
	3	5	15
	2	2	4
	1	1	1
	0	16	0

Parts	Points Made	Number Making Pupils	Pupils Points Points
XXVII	14	15	210
	13	12	156
	12	18	216
	11	18	198
	10	22	220
	9	14	126
	8	15	120
	7	8	56
	6	11	66
	5	3	15
	4	5	20
	3	6	18
	2	7	14
	1	2	2
	0	24	0

Parts	Points Made	Number Making Pupils	Pupils Points Points
XXVIII	39	5	195
	38	4	152
	37	7	259
	36	8	288
	35	9	315
	34	11	374
	33	8	264
	32	6	192
	31	11	341
	30	12	360
	29	4	116
	28	6	168
	27	4	108
	26	4	104
	25	5	125
	24	2	48
	23	7	161
	22	4	88
	21	4	84
	20	1	20
	19	3	57
	18	4	72
	17	4	68
	16	2	32
	15	2	30
	14		
	13		
	12	2	24
	11	2	22
	10	7	70
	9	2	18
	8	1	8
	7		
	6	2	12
	5	1	5
	4	2	8
	3	1	3
	2	2	4
	1	1	1
	0	20	0

Mean: 204.63  
Median: 206

The median of seventy-four for the seventh grade corresponds closely to the mean of 72.23. The median of 117 for the eighth grade compares closely with the mean of 117.52. The median of the ninth grade was 206 in comparison with the mean of 204.63 points.

These findings tend to show that learning is retained and increases from year to year through repetition. Each year new material was added and the students' retentive ability of old material showed a marked increase. A table is submitted showing the median in each grade as well as the number of students.

## SUMMARY SHOWING MEANS AND MEDIANS OF ACADEMIES.

## SEVENTH GRADE

Pupils - 179.                      Possible Points - 100.  
 Parts 1-14: Mean - 72.23  
    Median - 74.

## EIGHTH GRADE

Pupils - 183.                      Possible Points - 174.  
 Parts 1-14: Mean - 79.70  
      "    15-21: Mean - 37.  
      "    21---: Mean - 117.52  
    Median - 117.

## NINTH GRADE

Pupils - 181.                      Possible Points - 300.  
 Parts 1-14: Mean - 84.13  
      "    15-21: Mean - 48.18  
      "    22-28: Mean - 72.08  
      "    1-28: Mean - 204.63  
    Median - 206.



In order to show clearly the median for each part of each test table four has been prepared. The medians which are shown were found by dividing the total score made on each part of the test by the number of students taking the test. For instance in part one of the seventh grade test the score was 835 points. One hundred and seventy-nine pupils took the test. Eight hundred and thirty-five divided by 179 gave a median of 4.65 points. The medians for all parts were determined in the same manner.

In comparing the medians in each of the parts of the seventh grade test with the medians made by the eighth grade students on the same material it was found that the students' median was raised in all cases except one, namely, part three (simple analysis). In this case the median was lowered .96 of a point. The greatest increase in learning occurred in parts four (classification of sentences as to use), and nine (case of nouns and pronouns), and fourteen (recognition of pronouns). The increase varied from 1.10 to 1.48.

Comparing the medians in each of the first twenty-one parts of the ninth grade test with the eighth grade it was found that the students raised their medians in most cases. However, they lowered their medians in parts four (classification of sentences as to use), ten (formation of possessives), thirteen (capitalization), fourteen (recognition of pronouns), and twenty-one (recognition of indefinite pronouns).

The greatest increase in learning occurred in parts sixteen (recognition and classification of dependent clauses), nineteen (choice of correct form of verb with reason), and twenty (case of nouns and pronouns with reason). This increase varied from 1.41 points to 2.10.

In the seventh grade test the highest median occurred in part six which covered the selection of the correct verb form and the correct adjective or adverb. The lowest median in this grade occurred in part nine which covered the case of nouns and pronouns.

In the eighth grade test the best median was on part six which included the selection of the correct verb form and the correct adjective and adverb. This would tend to prove that material thoroughly learned and reviewed stays

with the student. The lowest median in this test occurred in part nine (case of nouns and pronouns); the same as in the seventh grade. There was an improvement over the seventh grade median, however.

In the ninth grade test the highest medians occurred in parts six (correct form of verb, adjectives, adverbs), sixteen (recognition and classification of dependent clauses), twenty-four (comparison of adjectives and adverbs), and twenty-eight (punctuation and capitalization). The lowest median occurred in part ten (formation of possessives). The lowest median for the seventh and eighth grades was found in part nine. The median in the ninth grade was relatively lower than in the eighth.

TABLE IV

PARTS	Pts.	Med.	Diff.	L	Pts.	Med.	Diff.	L	Pts.	Med.	Diff.	L	H
I	5	4.63	.37		5	4.80	.20	H	5	4.63	.17		H
II	6	4.03	1.37		6	4.68	1.14		6	5.03	.97		
III	10	9.12	.68	L	10	6.16	1.64		10	8.70	1.45		
IV	6	3.94	2.06		6	5.04	.96	H2	6	3.93	1.07		
V	9	6.82	2.38		9	7.66	1.34		9	8.18	.32		
VI	12	9.45	2.55		12	9.88	2.12		12	10.05	1.95		
VII	10	8.28	1.74		10	6.58	1.42		10	7.36	.61		H
VIII	5	3.68	1.32		5	3.91	1.09		5	4.12	.61		H
IX	5	1.43	3.57	H	5	2.91	2.09		5	3.30	1.70		
X	4	1.94	2.06		4	3.03	.970		4	2.90	1.00		
XI	5	3.52	1.48		5	3.90	1.10		5	4.15	.96		
XII	5	3.22	1.78		5	3.56	1.44		5	4.01	.96		
XIII	8	6.19	1.61		8	6.99	1.01		8	3.33	1.67		
XIV	10	5.93	4.07	L	10	7.18	2.82		10	6.85	3.15		
XV					6	4.08	1.91		6	4.48	1.52		
XVI					18	7.57	10.43	L	18	9.61	3.39		
XVII					7	3.69	3.31		7	4.68	5.32		
XVIII					12	6.01	5.99		12	6.56	5.44		
XIX					12	5.16	6.84		12	7.57	4.43		
XX					14	6.61	7.33	H	14	6.71	5.29		
XXI					5	3.54	1.46		5	3.39	1.61		
XXII									9	4.62	4.38		
XXIII									16	8.55	7.45		
XXIV									16	10.46	6.54		
XXV									20	9.20	10.60		H
XXVI									12	6.11	3.69		H
XVII									14	7.82	6.12		
XXVIII									39	23.16	15.62		L

H. equals highest degree of learning.  
 L. " lowest " "

TABLE V  
SHOWING THE RANGE AND ACCOMPLISHMENT OF THE  
SEVENTH GRADE

Classes: 5	Points	No. of Pupils	Median
Possible	97	1	
Points: 100	94	2	
	93	2	
Pupils: 179	91	1	
	89	4	
	88	4	
	87	4	
	86	8	
	85	9	
	84	7	
	83	3	
	82	1	
	81	4	
	80	8	
	79	6	
	78	7	
	77	3	
	76	3	
	75	6	
	74	7	
	73	5	* 90th Paper
	72	6	
	71	6	
	70	5	
	69	1	
	68	7	
	67	1	
	66	7	
	65	4	
	64	5	
	63	5	
	62	2	
	61	3	
	60	1	
	59	6	
	58	3	
	57	7	
	56	4	
	55	2	
	52	1	
	48	2	
	47	1	
	46	1	
	45	2	
	44	2	

TABLE VI  
SHOWING THE RANGE AND ACCOMPLISHMENT OF THE  
EIGHTH GRADE

Classes: 5 Possible Points: 174 Pupils: 123

Points	No. of Pupils	Median	Points	No. of Pupils	Median
163	1		115	2	
160	1		113	2	
157	2		112	3	
156	2		111	1	
155	1		109	3	
154	1		108	2	
153	1		107	2	
152	1		106	2	
150	2		105	1	
148	1		104	3	
147	3		103	2	
146	1		102	4	
144	2		101	3	
143	2		100	3	
142	1		99	2	
140	1		97	3	
138	2		96	1	
136	4		95	2	
134	2		94	2	
133	2		93	1	
131	2		92	1	
130	1		90	1	
129	1		89	1	
127	1		88	1	
126	1		87	1	
125	1		86	1	
124	1		85	1	
123	1		82	1	
122	2		81	1	
121	7		80	1	
120	4		79	1	
119	4		77	1	
118	3		71	1	
117	4	* 62nd	68	1	
116	3	Paper	65	1	

TABLE VII  
SHOWING THE AVERAGE AND ACCOMPLISHMENT OF THE  
NINTY GR. CE

Classes: 7 Possible Points: 300 Pupils: 181

Pts. No. of Median Pupils	Pts. No. of Median Pupils	Pts. No. of Median Pupils	
295	2	179	2
291	2	178	3
284	5	174	1
280	2	171	1
267	2	169	2
266	3	168	2
265	1	167	5
262	1	164	3
260	2	163	3
259	1	162	1
256	3	161	4
257	3	157	1
256	1	154	1
255	1	151	1
254	4	149	1
252	3	148	1
251	1	147	1
250	2	141	2
249	1	135	1
248	1	134	1
247	3	128	1
246	2	123	3
245	1	122	1
244	2	121	1
243	1	120	1
242	2	114	1
241	1	102	2
237	1	101	1
236	1	100	1
234	1	97	1
231	1	86	1
230	1	90	1
229	2	89	1
228	1	85	1
225	2		
224	2		
223	1		
221	1		
220	2		
219	1		
218	1		
217	1		
216	3		
215	1		
214	1		
213	2		
212	1		
210	3		
209	4		
208	1		
207	1		
206	1	* 91st Paper	
205	3		
204	1		
203	2		
201	1		
199	4		
198	2		
197	1		
196	2		
195	2		
192	2		
191	1		
190	3		
188	3		
187	1		
186	2		
185	1		
183	1		
182	2		
180	3		

## FINDINGS

In comparing the medians made in the seventh grade with the possible points it was found that the best learning took place in part one which covered the formation of plurals. This is partly accounted for by the fact that children often learn to spell the plurals correctly even though they do not know the rules for the formation of plurals. The next best learning took place in part three (simple analysis of sentences) that is selecting the complete subject and the complete predicate. This is emphasized by much drill work so that the median should be fairly high.

The lowest degree of learning occurred in part fourteen in which the students were asked to underline the pronouns and tell the kind. The students seemed to be able to recognize the pronouns but they could not tell the kind. Evidently sufficient drill in recognizing the kinds of pronouns had not been given. The next lowest degree of learning took place in part nine (case of nouns and pronouns). The majority of the students failed to get any of the cases right. They seemed to be unable to



connect the nominative case with the fact that the nouns and pronouns used as subject or as predicate nominative are in the nominative case, and so on. This may be due to the fact that case forms are not given as much emphasis in the seventh grade as are other items of information. The degree of learning is about the same in parts four (classification of sentences as to use), five (parts of speech), six (correct forms of verbs, adjectives, adverbs), eight (correct forms of pronouns), ten (formation of possessives), and in parts two (correct and incorrect sentences), seven (correct form of verbs), eleven (verbs sit, set; lie, lay; etc.), twelve (punctuation), and thirteen (capitalization).

It is interesting to note that the highest median made in the eighth grade was made over material first learned in the seventh grade. When the median in each part of the eighth grade test was compared with the possible points in each part of the test it was found that the best learning again occurred in part one which covered the formation of plurals. Since this is the part in which the best learning occurred in the seventh grade it would

tend to prove one of the laws of learning, that repetition fixes facts in the memory and assists in recall.

The next highest degree of learning took place in part four (classification of sentences as to use). Here again the factors of repetition and recall entered.

The lowest degree of learning took place in part sixteen (recognition and classification of dependent clauses with reasons for classification). The low degree of learning at this point may be accounted for by the fact that the material is new to the eighth grade and also by the fact that while students recognize dependent clauses as such they cannot put them in the correct classification and give reasons of classifying. Weakness in giving reasons seemed to be an outstanding fault. Evidently more drill should be given in stating reasons. The next to the lowest degree of learning occurred in part twenty (recognition of case forms and reasons). In comparing this with the next lowest learning in the seventh grade part nine (case forms) it was found that the students could recognize the case forms which they could not do in the seventh grade, but they were un-

able to state their reasons.

When the median for each part of the ninth grade test was compared with the possible number of points in each part of the test it was found that the highest degree of learning again occurred in part one which covered the formation of plurals. Since this is the part in which the best learning occurred in both previous years it proves once more that repetition is of great value in recall.

The highest degree of learning in the ninth grade occurred in part one. The next highest learning took place in part seven which dealt with the selection of the correct verb form. Much drill is given in both the seventh and eighth grades in the use of the correct verb form so that the high degree of learning is again accounted for through repetition.

In the case of the ninth grade as in the eighth the poorest learning occurred in the newly learned material. The lowest degree of learning occurred in part twenty-eight which covered punctuation and capitalization. There seemed to be a tendency on the part of the students to

overcapitalize and to omit all quotation marks. This can be accounted for by the fact that insufficient time is given to dictation work and to drill work that requires the insertion of capitals and marks of punctuation.

The next lowest degree of learning took place in part twenty-five which covered the recognition and identification of verbals. Many students underlined them as gerunds, participles, or infinitives. Inability to make a good score on this part of the test may be partly accounted for by the fact that the students do not become acquainted with verbals until the ninth grade; therefore, they do not have as much time for repetition through drill as they have on other items.

#### CONCLUSIONS

From the comparison of seventh, eighth, and ninth grade medians it has been found that the best learning occurred in part one, proving that drill is profitable. The next highest degrees of learning occurred in parts three (simple analysis), four (classification of sentences as to use), and seven (correct forms of verbs), respectively.

All of these parts being included in division one for the seventh grade the efficiency of repetition of facts learned is again proven.

The lowest degree of learning took place in parts fourteen (recognition of pronouns and kinds), sixteen (recognition and identification of dependent clauses), and twenty-eight (punctuation and capitalization), respectively. In the seventh grade the lowest degree of learning occurred in the last item tested, part fourteen (recognition and classification of pronouns). This may be accounted for through lack of emphasis and also through the fact that it is the last item in the test. The next lowest degree of learning was in part nine (case of nouns and pronouns). Not as much energy and emphasis is placed on case forms in the seventh grade as in the eighth and ninth grades.

In the eighth grade the lowest degree of learning was found to be in part sixteen (recognition and identification of dependent clauses with reasons). The next lowest score was on part twenty (case of nouns and pronouns with reasons). The low degree of learning here may

be accounted for by the fact that these parts test new facts learned. Repetition of facts which is so necessary has not been sufficient.

The lowest learning in the ninth grade again occurred in the last part of the test as it did in the seventh grade, and the next lowest in part twenty-five (verbals). From this fact it would seem that the position of certain items in the test has something to do with the students' ability to answer correctly. Then, too, since the low scores are almost invariably made on new material the necessity and efficiency of repetition is emphasized once more.

Certain negative points are very apparent: first, the lowest median in the seventh and eighth grades was found in part nine (class of nouns and pronouns). This median improved however in each grade which indicated that the students learned by repetition. The improvement was not as great as it should have been. Greater improvement or a higher degree of learning in this case could be accomplished by systematic use of work books and by means of short daily drills. Short drills which can be checked in

class are the most valuable. Corrections made immediately while the students are still thinking about the material are more valuable than corrections made by the teacher at a later time. If there was a uniformity in terminology of the case forms perhaps learning would occur more rapidly. For illustration, in the seventh grade the terms nominative, objective, and possessive are used while in the eighth and ninth grade the terms nominative, accusative, dative, and genitive are used, though the author for all the textbooks is the same. This is confusing and perhaps accounts for the inability of the students to recognize the cases. In the ninth grade the lowest median was made in part ten (formation of possessives).

Another interesting fact learned from these tests was that the low degree of learning indicated by the medians was made in each case on the new material. This again indicates and emphasizes the fact that constant repetition is necessary and valuable to learning.

A third negative point that was very clear was the fact that in all divisions of the test where reasons were asked for the students seemed to be unable to state the

reasons. Perhaps this was due to the fact that all teachers do not emphasize the necessity of knowing the reasons. There should be more drill both oral and written on stating the reasons.

From these observations at least three points are particularly outstanding: first, the English teachers of Manhattan Junior High School need to give more time and attention to case forms of nouns and pronouns; second, more drill work is needed on newly taught material; third, teachers should not be satisfied to have the students use the correct form, but should insist that they know why they use it, or, in other words, more drill in stating reasons is necessary.



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