



A P P E N D I X

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Table 1 Distribution of Grade 3 Pupils by Type of School, and Test Scores

Type of School	Test Scores		Number of pupils
	Mean	Standard Deviation	
Private	78.2	20.9	159
MOE	83.0	18.5	64
Municipal	67.5	20.1	115
CAO	50.6	20.8	466
	61.1	24.2	804

Source : Data Tape of Grade 3 pupils, Office of the National Education Commission.

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The image features a large, faint watermark of the Thammasat University logo in the background. The logo is circular and contains the university's name in Thai script at the top and "THAMMASAT UNIVERSITY" in English at the bottom. In the center of the logo is a stylized emblem consisting of a crown-like structure atop a tiered pedestal.

ต้นฉบับไม่มีหน้า

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Table 3 Distribution of Grade 3 Pupils by Occupation of Father and Test Scores

Occupation of Father	Test Scores		Number of pupils
	Mean	Standard Deviation	
Agriculture	49.7	20.0	384
Services	69.4	24.8	123
Merchant	73.7	22.5	140
Industrial Work	65.7	19.5	21
Government Officer	75.5	21.8	90
Professional	80.3	25.3	7
Others and no response	62.4	21.0	39
	61.1	24.2	804

Source : Data Tape of Grade 3 pupils, Office of the National Education Commission.

Table 4 Distribution of Grade 3 Pupils by Location of Residence and Test Scores

Location of Residence	Test Scores		Number of Pupils
	Mean	Standard Deviation	
City Municipality	80.8	21.0	173
Town Municipality	70.8	20.23	87
District Municipality	61.8	17.3	24
Sanitary Municipality	62.6	25.4	65
Outside Sanitary Area	51.2	20.7	447
Not Specified	62.5	16.5	8
	61.1	24.2	804

Source : Data Tape of Grade 3 pupils, Office of the National Education Commission.

Table 5 Regression Equations for Grade 3 Achievement with School
Inputs Enter Prior to Home Inputs

Explanatory Variables	Estimated		Estimated	
	Coefficient	t - value	Coefficient	t - value
Type of School				
- MOE	-8.913	-2.419*	-5.930	-1.647*
- Municipal	-14.770	-5.269**	-10.173	-3.554**
- CAO	-27.961	-11.956**	-15.159	-5.130**
Teacher's total test scores	0.215	4.298**	0.158	3.253**
Number of Classrooms	0.399	4.317**	0.231	2.496*
Teacher's View of Pupil's ability				
- good	5.464	2.544**	4.431	2.126*
- poor	-6.843	-2.359*	-6.493	-2.331*
Pupil's Age			-1.260	-1.835*
Pupil's Weight			0.172	0.884
Pupil's Absence Record			-0.213	-2.868**
Attended Kindergarten			4.821	2.182*
Repeat Any Grade			-5.976	-3.362**
Father Being Farmer			-0.590	-0.295
Home in Municipality			6.835	2.915**
Exposed to Television			6.401	3.554**
Distance from Home to School (Kilometre)			-0.250	-1.725*
Constant	64.831	-	65.159	-
R ²	0.347		0.413	
R ²	0.340		0.399	
F	52.206		29.892	
n	698		698	

* Statistically significant at the .05 level .

** Statistically significant at the .01 level .

Table 6. Regression Equations for Grade 3 Achievement with Home Inputs Enter Prior to School Inputs

Explanatory Variable	Estimated Coefficient	t - value	Estimated Coefficient	t - value
Type of School				
- ROE			-5.930	-1.647*
- Municipal			-10.173	-3.554**
- CAO			-15.159	-5.130**
Teacher's Total Scores			0.158	3.253**
Number of Classrooms			0.231	2.496*
Teacher's View of Pupil's Ability				
- Good			4.431	2.126*
- Poor			-6.493	-2.371*
Pupil's Age	-1.502	-2.143*	-1.260	-1.835
Pupil's Weight	0.287	1.455	0.172	0.884
Pupil's Absence Record	-2.264	-3.443**	-0.213	-2.868**
Attended Kindergarten	10.433	5.020**	4.821	2.182*
Repeat Any Grade	-6.368	-3.473**	-5.976	-3.362**
Father Being Farmer	-4.189	-2.193*	-5.590	-0.295
Home in Municipality	12.257	5.722**	6.835	2.915**
Exposed to Television	9.027	4.988**	6.401	3.554**
Distance from Home to School	-0.352	-2.388*	-0.250	-1.725*
Constant	62.679	-	65.159	-
R ²	0.364		0.413	
\bar{R}^2	0.356		0.399	
F	43.729		29.892	
n	698		698	

* Statistically significant at the .05 level.

** Statistically significant at the .01 level.

Table 7 Mean and Standard Deviation of Variable in the Grade 3 Achievement Equations

Variables	Mean	Standard Deviation
Pupil's Scores	60.122	23.723
Type of School*		
- BOE	0.086	0.281
- Municipal	0.153	0.361
- G.O	0.638	0.491
Teacher's Total Scores	54.557	15.028
Number of Classrooms	10.481	10.461
Teacher's View of Pupil's Ability*		
- Good	0.138	0.345
- Poor	0.073	0.260
Pupil's Age	9.053	1.226
Pupil's Weight	24.658	4.044
Pupil's Absence Record	5.486	2.691
Attended Kindergarten*	0.195	0.396
Repeat Any Grade*	0.234	0.423
Father Being Farmer*	0.510	0.500
Living in Municipality*	0.192	0.394
Having T.V. at Home*	0.593	0.492
Distance from Home to School	1.973	5.186

* being dummy variable

Table 8 Regression Equation for Teacher's Test Scores

Explanatory Variable	Estimated Coefficient	t - value
Teacher's Age	- 1.699	- 6.083**
Teacher's Qualification		
- Paw Kaw Saw	7.688	6.433**
- High Paw Kaw Saw	14.997	13.396**
- Bechalor Degree or Above	27.452	8.657**
Teacher's Formal Education	1.413	4.585**
Constant	44.050	-
\bar{R}^2	0.421	
F	102.220	
n	698	

**Statistically Significant at the .01 level.

Table 9
Matrix of Correlation Coefficients of Variables in the Grade 3 Pupil Sample

Variable	.1	2	3	4	5	6	7	8	9	10	11	12
1	1.00											
2	0.35	1.00										
3	0.29	-0.12	1.00									
4	0.14	-0.16	-0.13	1.00								
5	-0.51	-0.49	-0.40	-0.57	1.00							
6	0.18	-0.02	0.15	-0.02	-0.06	1.00						
7	0.40	0.05	0.59	0.16	-0.49	0.15	1.00					
8	0.14	0.64	-0.01	0.06	-0.08	0.03	0.08	1.00				
9	-0.16	-0.08	-0.09	-0.13	0.20	0.12	-0.12	-0.11	1.00			
10	0.01	-0.07	0.14	0.05	-0.07	0.05	0.06	0.07	-0.02	1.00		
11	-0.22	-0.13	-0.07	-0.06	0.17	-0.05	-0.12	-0.06	0.04	0.08	1.00	
12	-0.23	-0.13	-0.09	-0.14	0.25	-0.12	-0.24	0.03	0.07	0.05	0.08	1.00
13	0.40	0.38	0.35	-0.03	-0.44	0.12	0.33	0.12	-0.14	-0.00	-0.14	-0.15
14	-0.25	-0.13	-0.06	-0.05	0.16	-0.03	-0.12	-0.05	-0.01	0.17	0.17	0.06
15	-0.43	-0.35	-0.24	-0.35	0.64	-0.12	-0.40	-0.13	0.17	-0.02	0.13	0.24
16	-0.27	-0.23	-0.13	-0.01	0.24	-0.09	-0.11	0.02	0.03	0.38	0.15	0.15
17	0.43	0.32	0.33	0.29	-0.63	0.66	0.44	0.05	-0.12	0.07	-0.09	-0.16
18	0.44	0.25	0.25	0.26	-0.51	0.15	0.39	0.11	-0.11	0.01	-0.15	-0.29

Table 9 (Cont.)

Matrix of Correlation Coefficients of Variables in the Grade 3 Pupil Sample

Variable	13	14	15	16	17	18						
13	1.00											
14	-0.10	1.00										
15	-0.43	0.16	1.00									
16	-0.28	0.32	0.23	1.00								
17	0.31	-0.13	-0.48	-0.19	1.00							
18	0.30	-0.20	-0.54	-0.19	0.37	1.00						

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List of Variables

1. Test Scores
2. Private School
3. MOE School
4. Municipal School
5. CAO School
6. Teachers' Total Scores
7. Number of classrooms
8. Teachers' View of pupils' ability-good
9. Teachers' View of pupils' ability-poor
10. Pupil's weight
11. Pupil's Absent record
12. Distance from Home to School (Kilometers)
13. Attended Kindergarten
14. Repeat Any grade
15. Father's Occupation; Farmer
16. Pupils' Age
17. Home Location municipality
18. Exposure to Television

Table 10 Distribution of Students by Institutions and Type of MS.5 School

Institution	Total	Public School		Private School	
		Number	%	Number	%
Chula	180	144	80.0	36	20.0
Kasetsart	228	185	81.1	43	18.9
Mahidol	70	66	94.3	4	5.7
Thammasat	327	250	76.5	77	23.5
Ramkamhaeng	1,037	871	84.0	166	16.0
Silpakorn	73	48	65.8	25	34.2
Chiangmai	223	185	83.0	38	17.0
Songkla	58	55	94.8	3	5.2
Khon-Kaen	59	52	88.1	7	11.8
King Mongkut's Inst.	104	83	79.8	21	20.2
Bangkok College	70	56	80.0	14	20.0
Thurakij Bundit	109	60	55.0	49	45.0
Chamber of Commerce	53	36	67.9	17	32.1
Phayab College	79	30	38.0	49	62.0
Total	2,670	2,121	79.4	549	20.6

Table 11 Distribution of Students by Institutions and Type of MS.5 school (the 1976 graduates in the academic stream from the formal school system)

Institution	Total	Public School		Private School	
		Number	%	Number	%
Chula	142	132	93.0	10	7.0
Kasetsart	157	157	100.0	0	0.0
Mahidol	52	52	100.0	0	0.0
Thammasat	149	149	100.0	0	0.0
Ramkamhaeng	619	616	99.5	3	
Silpakorn	56	56	100.0	0	0.0
Chiangmai	165	159	96.4	6	0.0
Songkla	24	22	91.7	2	0.0
Khon-Kaen	34	34	100.0	0	0.0
King's Mongkut Inst.	58	58	100.0	0	0.0
Bangkok College	27	27	100.0	0	0.0
Thurakij Bundit	36	36	100.0	0	0.0
Chamber of Commerce	23	23	100.0	0	0.0
Phayab College	19	19	100.0	0	0.0
Total	1,561	1,540	98.7	21	1.34

Table 12 Distribution of Students by Institutions and Father's Occupation

Institution	Father's Occupation					
	Total	Professional	Administrative	Clerical	Salesman	Farmers
Chula	142	12	20	6	76	4
Kasetsart	157	18	19	6	69	14
Mahidol	52	6	4	1	29	4
Thammasat	149	12	17	5	72	10
Ramkamhaeng	620	101	81	29	161	103
Silpakorn	56	7	9	4	14	5
Chiangmai	165	33	18	6	70	10
Songkla	24	3	1	0	17	0
Kon-kaen	34	5	0	1	18	4
King Mongkut's Inst.	58	5	7	2	28	1
Bangkok College	27	5	4	1	11	0
Thurakij-Bundit	36	4	6	1	16	3
Chamber of Commerce	23	0	7	0	8	0
Phayab College	19	3	1	1	7	3
Total	1,562	214	194	63	596	161
(%)	100	13.7	12.4	4.0	38.2	10.3

Table 12 Distribution of Students by Institutions and Father's Occupation
(Cont.)

Father's Occupation Institution	Transportation	Craftsmen	Services	Laborer	Unclassified and no response
Chula	2	5	3	7	7
Kasetsart	4	9	0	6	12
Mahidol	0	2	1	1	4
Thammasat	2	6	1	5	19
Ramkamhaeng	22	22	3	22	76
Silpakorn	9	0	0	1	7
Chiangmai	4	4	0	3	17
Songkla	1	0	0	0	2
Kon-kaen	0	0	0	1	5
King Mongkut's Inst.	2	2	1	2	8
Bangkok College	0	0	0	1	5
Thurakij-Bundit	3	0	0	0	3
Chamber of Commerce	0	1	0	0	7
Phayab College	2	0	0	1	1
Total	51	51	9	50	173
(%)	3.3	3.3	0.6	3.2	11.0

Table 13 Distribution of Students by Age, Sex and Race

	Total	Male				Female			
		Total	Thai	Chinese	Other	Total	Thai	Chinese	Other
<u>Age</u>									
less than 17	56	34	32	2	0	22	17	5	0
17	319	226	196	30	0	93	74	19	0
18	709	425	357	66	2	284	221	63	0
19	380	187	154	32	1	193	150	43	0
20	70	28	25	3	0	42	27	15	0
21	12	2	2	0	0	10	7	3	0
22 and over	12	4	4	0	0	7	5	2	0
Total	1,558	906	770	133	3	652	502	150	0

Table 14 Distribution of Student By Institution and MS.5 Grade

	Total	less than			
		1.49	1.50-1.99	2.00-2.49	2.50-2.99
Chula	133	0	2	34	49
Kasetsart	140	1	3	29	65
Mahidol	41	0	0	3	15
Thammasat	136	1	1	33	61
Ramkamhaeng	545	16	68	241	184
Silpakorn	55	0	1	10	27
Chiangmai	150	1	3	28	67
Songkla	23	0	1	7	5
Khon-kaen	33	1	2	6	19
King's Mongkut	55	0	2	15	27
Bangkok College	23	0	4	10	8
Thurakij Bundit	29	1	6	14	6
Chamber of Commerce	20	2	7	9	2
Phayab College	17	0	0	6	8
Total	1400	23	100	445	543
(%)	100	1.6	7.1	31.8	38.8

Table 14 Distribution of Student By Institution And MS.5 Grade

(Cont.)

	3.00-3.49	3.50-4.00	2.49 or below (%)	2.50 or above (%)
Chula	38	10	27.0	73.0
Kasetsart	35	7	23.6	76.4
Mahidol	20	3	7.3	92.7
Thammasat	34	6	25.7	74.3
Ramkamhaeng	31	5	59.6	40.4
Silpakorn	16	1	20.0	80.0
Chiangmai	40	11	21.3	78.7
Songkla	7	3	34.8	65.2
Khon-kaen	4	1	27.3	72.7
King's Mongkut	8	3	30.9	69.1
Bangkok Col.	1	0	60.9	39.1
Thurakij Bundit	2	0	72.4	27.6
Chamber of Commerce	0	0	90.0	10.0
Phayab Col.	3	0	35.3	64.7
Total	239	50		
(%)	17.1	3.6		

Table 15 Distribution of Students by Father's Occupation and MS.5 Grade

	Total (1)	Less than			
		1.49 (2)	1.50-1.99 (3)	2.00-2.49 (4)	2.50-2.99 (5)
Professional	197	2	18	65	73
Administrative	180	1	13	52	80
Clerical	57	1	5	18	22
Sales	543	15	33	156	209
Farmers	149	4	14	52	52
Transportation	43	1	4	12	18
Craftsmen	48	0	8	12	21
Services	8	0	0	2	3
Laborers	47	3	3	17	15
Unclassified and No Response	156	3	6	63	61
Total	1428	30	104	449	554

Table 15 Distribution of Students by Father's Occupation and MS.5 Grade
(Cont.)

	3.00-3.49 (6)	3.50-4.00 (7)	(2)+(3)+(4)	(6)+(7)
			(1) (8)*	(1) (9)*
Professional	29	10	43.1	19.8
Administrative	27	7	36.7	18.9
Clerical	9	2	42.1	19.3
Sales	110	20	37.6	23.9
Farmers	24	3	53.7	18.1
Transportation	8	0	39.5	18.6
Craftsmen	7	0	41.7	14.6
Services	2	1	25.0	37.5
Laborers	7	2	48.9	19.1
Unclassified and No Response	18	5	46.1	14.7
Total	241	50		

Table 16 Distribution of Students By Education of Mother and MS.5 Grade

	Total (1)	less than 1.49 (2)	1.50-1.99 (3)	col(2+3)/(1) % (4)	2.00-2.49 (5)
Illiterate	153	4	14	11.8	41
Able to read and write	223	5	14	8.5	74
Primary	608	13	43	9.2	200
Lower Secondary	135	3	7	7.4	45
Upper Secondary	57	1	5	10.5	9
Certificate	50	0	3	5.9	17
Below B.A.	33	0	1	3.0	7
B.A.	31	1	5	16.0	9
M.A.	7	0	0	0.0	2
Ph.D.	0	0	0		0
not reply	131	3	12		45
Total	1,428	30	104		449

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Table 16 Distribution of Students By Education of Mother and MS.5 Grade
(Cont.)

	2.50-2.99 (6)	3.00-3.49 (7)	3.50-4.00 (8)	col(7+8)/(1) (9)
Illiterate	57	28	9	24.2
Able to read and write	82	38	10	21.5
Primary	234	101	17	19.4
Lower Secondary	53	26	1	20
Upper Secondary	30	8	4	21
Certificate	19	9	2	22
Below B.A.	16	7	2	27
B.A.	9	5	2	22
M.A.	3	2	0	28
Ph.D.	0	0	0	
not reply	51	17	3	
Total	554	241	50	

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Table 17 Distribution of Students by Region and MS.5 Grade

		less than					
	Total	1.49	1.50-1.99	2.00-2.49	2.50-2.99	3.00-3.49	3.50-4.00
Bangkok	875 (100)	20 (2.3)	68 (7.8)	281 (32.1)	333 (38.1)	147 (16.8)	26 (3.0)
Central	149 (100)	0 (0.0)	12 (8.1)	50 (33.6)	55 (36.9)	26 (17.4)	6 (4.0)
North	172 (100)	4 (2.3)	10 (5.8)	37 (21.5)	74 (43.0)	39 (22.7)	8 (4.7)
Northeast	90 (100)	4 (4.4)	5 (5.6)	29 (32.2)	34 (37.8)	12 (13.3)	6 (6.7)
South	110 (100)	2 (1.8)	7 (6.4)	43 (39.1)	47 (42.7)	9 (8.2)	2 (1.8)
East	32 (100)	0 (0.0)	2 (6.3)	9 (28.1)	11 (34.4)	8 (25.0)	2 (6.25)
Total	1428	30	104	449	554	241	50
%	(100)	(2.1)	(7.3)	(31.4)	(38.8)	(16.9)	(3.5)

Note : Values in parentheses are percentages

Table 18 Determinants of Average Teachers' Salaries

Explanatory Variable	Estimated Coefficient	t - value	Mean	Standard Deviation
Average Teachers' Ages	47.87	28.00	33.39	3.64
Average Teaching Years in this school	46.23	18.68	6.86	2.68
Average Teaching Hours per week	-44.40	17.79	17.13	1.83
Proportion of Teachers with Bechalor Degrees and above	341.63	7.04	0.65	0.08
constant	1,015.66			
R^2	0.849			
\bar{R}^2	0.849			
F	1,672.042			

Note : The mean and standard deviation of the dependent variable is 2394.22 and 356.55 respectively.

Table 19 Regression Equations for the MS.5 Grade With Home
Inputs Enter Prior to School Inputs

Explanatory Variable	Estimated Coefficients	t - value	Estimated Coefficient	t - value
Class size			- 0.004	2.14*
Average teacher's salary			0.0001	2.20*
Teacher's attentiveness			- 0.038	1.56
Number of siblings in school	0.018	1.78*	0.016	1.57
Mother's education	0.014	1.21	0.013	1.12
Repeat any grade	- 0.329	4.73**	- 0.304	4.35**
Health condition	0.107	3.18**	0.107	3.19**
Constant	2.331		2.242	
R^2	0.036		0.044	
\bar{R}^2	0.032		0.038	
F	8.944		7.842	
n	1,213		1,213	

*Statistically significant at the .05 level

**Statistically significant at the .01 level

Table 20 Regression Equations for the MS.5 Grade With School
Inputs Enter Prior to Home Inputs

Explanatory Variable	Estimated	t - value	Estimated	t - value
	Coefficients		Coefficients	
Class size	- 0.005	2.21*	- 0.004	2.14*
Average teacher's salary	0.0002	3.01**	0.0001	2.20*
Teacher's disattentiveness	- 0.05	1.92*	- 0.038	1.56
Number of siblings in school			0.016	1.57
Mother's education			0.013	1.12
Repeat any grade			- 0.304	4.35**
Health condition			0.107	3.19**
Constant	2.395		2.242	
R^2	0.016		0.044	
\bar{R}^2	0.013		0.038	
F	6.3498		7.842	
n	1213		1213	

* Statistically significant at the .05 level

** Statistically significant at the .01 level

Table 21 Means and Standard Deviations of Variables in the MS.5 Sample

Variables	Mean	Standard Deviation
(1) MS.5 GPA	2.464	0.639
(2) Number of Siblings in School	2.643	1.771
(3) Mother Education	1.934	1.570
(4) Repeat Any Grade	0.073	0.261
(5) Health Condition	1.661	0.539
(6) Teacher Attentiveness	2.309	0.734
(7) Class Size	41.154	8.688
(8) Teacher's Average Salary	2390.5	355.545

Table 22 Matrix of Correlation Coefficients of Variables in the MS.5 Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	100	0.05	0.04	-0.15	0.11	-0.06	0.09	-0.07
(2)		1.00	-0.02	-0.02	0.02	0.04	0.09	-0.01
(3)			1.00	0.01	-0.002	-0.09	0.07	0.02
(4)				1.00	-0.09	0.04	-0.13	0.04
(5)					1.00	-0.06	0.02	0.004
(6)						1.00	-0.03	0.04
(7)							1.00	-0.05
(8)								1.00

Note : See variable names in table 21