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The Analysis of Actual situation of the Physical Education Facilities and Teaching Tools in Middle School

Choi Sang Kyo

*Graduate school of Education
Pu-kyong National University*

Abstract

The aim of this study is to provide the basis on the expansion of the facilities to normalize the physical education in middle school, especially for the middle school students who will be the support of our nation in the future, by analyzing the current situation of the facilities and teaching tools at their school on the basis of the newly revised order.

To satisfy the aim of this study, I analyzed the current holding situations of the teaching tools and the physical education facilities in middle school by making the questionnaire with the material based on the standard order of Pusan Education Office which was newly revised in March, 1998 by the superintendent of education, distributing it to the boy's, girl's and coeducational middle school and taking statistics on it.

Followings are the result of this study.

1. Even though the physical training area per student is still below the national average, according to the standard area suggested by the order of the equipment of the facilities, it is above the average, 147% 139% and 124% each in boy's middle school, girl's middle school and coeducational middle school.

But the physical training area per student can not reach the average by the standard order in two boy's middle schools, three girl's middle schools and one coeducational middle school.

The physical training area per student is as short as 6.07m^2 in boy's middle school, 5.88m^2 in girl's middle school and 6.92m^2 in a coeducational middle school in comparison with that of national average.

2. In the current holding situation of the physical training area, the area holding rate for the other facilities is the highest 100% each 95% for dancing, 83% for field, 82% for physical exercises, and 42% for personal and group activities. But that of swimming shows 0% so no school has the physical training area for swimming, even though swimming is organized in the curriculum. As a result, students cannot take swimming lessons at their school.

3. In the current holding rate of the equipment of teaching tools in physical education, that of the physical examination is the highest 102% successively 96% for common teaching tools, 95% for personal and group activity, 94% for field, 26% for physical exercises, 24% for dancing. In conclusion, the holding rates of dancing and physical exercises are the lowest, so their teaching tools are not available enough for the students.

4. Among the items of teaching tools and the equipment based on the standard of physical education facilities and teaching tools, the holding rates of necessary items are much lower than those of the others.

Above, we can conclude like these.

Though the physical training area is enough, the gymnasium for all weather and the swimming pool are not available for the middle schools in Pusan. Furthermore, the holding amount of the usable teaching tools and the equipment of each part is not enough, except a few items, and the subsidiary facilities don't reach the average, either.

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	/	/	/ m ²	/ m ²	/ m ²
1965	1,208	751,341	8,955,578	7,413.6	11.92
1970	1,608	1,318,803	16,543,495	10,288.2	12.54
1975	1,967	2,026,823	18,243,160	9,274.6	9.00
1980	2,100	2,471,997	21,227,997	10,108.6	8.59
1985	2,371	2,782,173	23,599,577	9,953.4	8.48
1990	2,470	2,275,751	26,488,217	10,724.0	11.64
1995	2,683	2,481,848	25,040,234	9,332.9	10.09
2000	2,731	1,860,539	23,851,936	8,733.8	12.82

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1965 11.92m² 1970 12.54m² 가

가 1975 9.00m² 1980 8.59m² 1985

8.48m² .

1990 11.64m² 가

가 1995 가 가 10.09m²

2000 12.82m² 가 .

가 1965 1,208

1970 1,608 400 가 가 , 1965

8,955,578m² 1970 16,543,495m² 7,587,917m²가 가 .

1 1965 7,413.6m² 1970 10,288.2m²

2,874.6m²가 가 .

1975 9,274.6m² 1980 10,108.6m² 가

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1985 가 271 가 1

9,953.4m² 1990 가 99 가 가

2,888,640m²가 가 1 10,724.0m²

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9,332.9m² , 2000

1995 48 가 가 1 8,733.8m²

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		/	/	/ m ²	/ m ²	%
	D · C	34	1,400	5,800	8,242	142
	Y · S	28	1,034	5,068	8,100	160
	O · R	31	1,209	5,418	5,350	99
	B · K	29	1,088	5,176	5,824	113
	J · S	34	1,239	5,478	11,838	216
	O · M	28	1,071	5,142	5,100	99
	K · S	26	1,007	5,014	6,783	135
	D · R	32	1,300	5,600	8,733	156
	Y · C	27	1,100	5,200	5,500	106
	K · N	26	1,198	5,396	13,087	243
		295	11,646	53,292	78,557	1,469
		29.50	1,164.60	5,329.20	7,855.70	146.90

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1 5,329m² 7,856m²

147% 1 6.75m²

2000 1 12.82m² 6.07m²가

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		/	/	/ m ²	/ m ²	%
	Y · S	31	1,130	5,260	10,107	192
	B · K	30	1,112	5,224	6,684	128
	K · Y	29	1,037	5,074	7,275	143
	K · J	21	731	4,462	7,150	160
	K · S	33	1,290	5,580	11,085	199
	J · O	28	1,008	5,016	4,558	91
	K · N	18	645	4,290	1,609	38
	K · K	30	1,105	5,210	8,090	155
	S · J	23	980	4,960	9,611	194
	Y · R	27	1,044	5,088	3,785	74
		270	10,082	50,164	69,954	1,394
		27.0	1,008.20	5,016.40	6,995.40	139.40

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1 5,016m² 6,995m²

139% 1 6.94m²

2000 1 12.82m² 5.88m²

0.19m²

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		/	/	/ m ²	/ m ²	%
	K · J	32	1,168	5,336	10,600	199
	D · C	27	988	4,976	5,922	119
	M · D	30	1,021	5,042	5,772	114
	Y · U	28	1,038	5,076	6,000	118
	S · D	33	1,234	5,468	5,440	99
	S · J	29	1,128	5,256	6,288	120
	D · D	32	1,176	5,352	6,156	115
	N · C	28	1,056	5,112	6,675	131
	U · S	24	827	4,654	5,465	117
	H · S	30	1,174	5,348	5,500	103
		293	10,810	51,620	63,818	1,235
		29.3	1,081.00	5,162.00	6,381.80	123.50

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1 5,162m² 6,382m²

124% 1 5.90m²

2000 1 12.82m² 6.92m²

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1. 100m	0.8	1.2	0.5	0.7	30	20	66.7	10	33.3
2.	0.9	1.0	1.0	0.8	30	28	93.3	2	6.7
3.	2.6	2.7	2.6	2.6	30	30	100	0	0.0
4. ()	0.6	0.8	·	0.4	20	9	45.0	11	55.0
5.	0.1	0.2	0.0	0.2	30	4	13.3	26	86.7
6.	0.0	0.0	0.0	0.0	30	0	0.0	30	100
7.	1.0	1.4	0.8	1.0	30	28	93.3	2	6.7
8.	0.7	0.7	0.7	0.7	30	21	70.0	9	30.0
9.	0.7	0.7	0.6	0.8	30	21	70.0	9	30.0
10. ()	0.4	0.4	·	0.4	20	8	40.0	12	60.0
11. ()	1.0	1.0	·	1.0	20	20	100	0	0.0
12.	0.7	0.6	0.8	0.8	30	24	80.0	6	20.0
13.	0.4	0.7	0.2	0.2	30	11	36.7	19	63.3
14.	0.2	0.2	0.3	0.0	30	5	16.7	25	83.3
15.	0.1	0.1	0.1	0.0	30	2	6.7	28	93.3
16.	0.1	0.2	0.0	0.0	30	2	6.7	28	93.3
17.	0.1	0.1	0.0	0.1	30	2	6.7	28	93.3
18.	0.3	0.4	0.1	0.3	30	8	26.7	22	73.3
19.	0.0	0.0	0.0	0.0	30	0	0.0	30	100
20. ()	1.0	·	1.0	0.9	20	19	95.0	1	5.0
21.	0.3	0.4	0.5	0.0	30	9	30.0	21	70.0
22.	1.2	1.2	1.4	1.0	30	30	100	0	0.0
23.	1.4	1.4	1.5	1.3	30	30	100	0	0.0
24.	0.6	0.8	0.2	0.9	30	19	63.3	11	36.7
25.	0.8	0.7	0.0	1.6	30	17	56.7	13	43.3

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100m 67%(20),

33%(10) 2/3 .

93%(28) 7%(2)

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17%(5) 83%(25)

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		10	10	7	70	
		30	30	22	73	
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		10	10	8	80	
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		20	20	15	75	
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		60	60	50	83	

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		10	20	27	135	
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		30	50	37	74	
		20	27	26	96	
		30	39	32	82	
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141%

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		10	10	10	100	
		30	30	32	107	
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		10	10	7	70	
		10	10	7	70	
		30	30	21	70	
()		10	10	7	70	
		10	10	6	60	
		10	10	8	80	
		30	30	21	70	
()		10	10	4	40	
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		10	10	4	40	
		20	20	8	40	
()		10	10	10	100	
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		10	10	10	100	
		20	20	20	100	
()		10	10	6	60	
		10	10	8	80	
		10	10	8	80	
		30	30	22	73	
()		10	10	7	70	
		10	10	2	20	
		10	10	2	20	
		30	30	11	37	
		10	10	2	20	
		10	10	3	30	
		10	10	0	0	
		30	30	5	17	

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		10	10	1	10	
		10	10	0	0	
		30	30	2	7	
		10	10	2	20	
		10	10	0	0	
		10	10	0	0	
		30	30	2	7	
		10	10	1	10	
		10	10	0	0	
		10	10	1	10	
		30	30	2	7	
(66m ²)		10	10	4	40	
		10	10	1	10	
		10	10	3	30	
		30	30	8	27	
		10	10	0	0	
		10	10	0	0	
		10	10	0	0	
		30	30	0	0	
		130	130	65	50	
		110	110	36	33	
		130	130	53	41	
		370	370	154	42	

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가 50% 33%

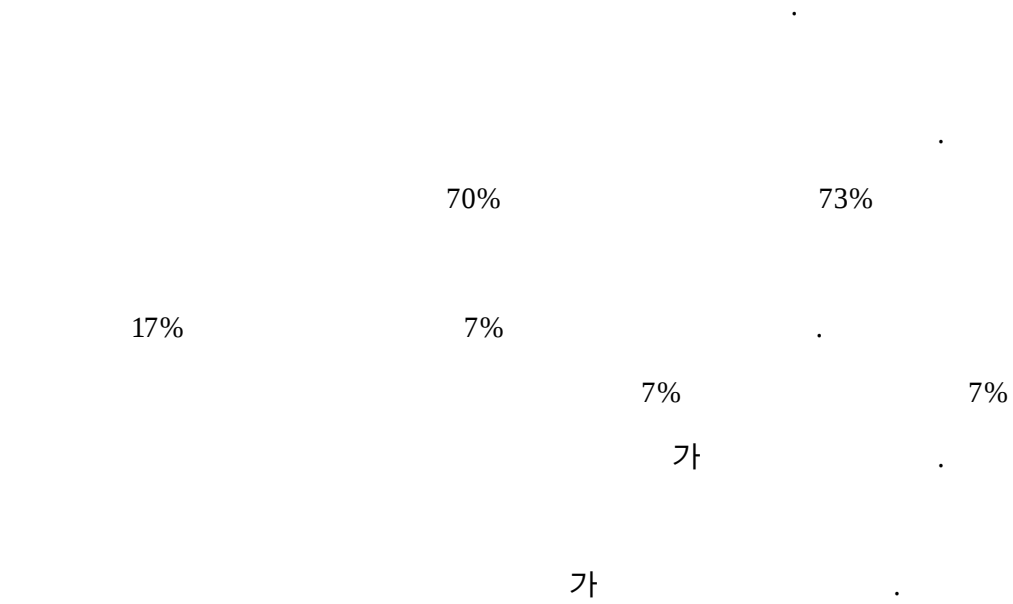
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		30	30	9	30	

가 40%

가 50%

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		10	10	10	100	
		30	30	36	120	
		10	10	14	140	
		10	10	15	150	
		10	10	13	130	
		30	30	42	140	
		10	10	8	80	
		10	10	2	20	
		10	10	9	90	
		30	30	19	63	
		10	10	7	70	
		10	10	0	0	
		10	10	16	160	
		30	30	23	77	
		40	40	41	103	
		40	40	31	78	
		40	40	48	120	
		120	120	120	100	

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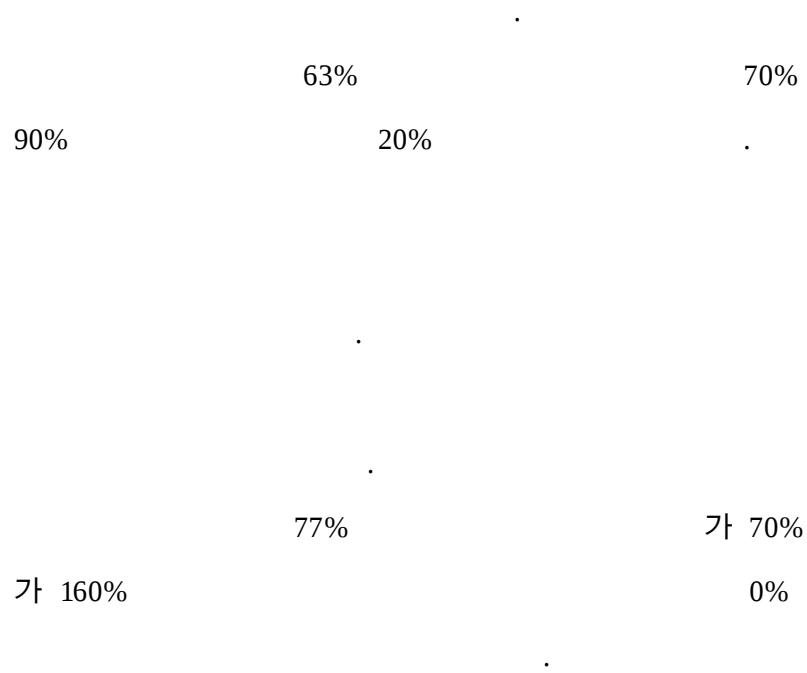
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						N		%		%
1.		4.9	5.7	4.0	5.0	30	15	50	15	50
2.		1.8	1.5	1.9	1.9	30	30	100	0	0
3.	50m	1.1	1.2	0.9	1.3	30	27	90	3	10
	10m	0.4	0.3	0.5	0.3	30	1	3	29	97
4.		1.2	1.3	1.2	1.1	30	30	100	0	0
5.		1.0	1.0	1.0	1.1	30	27	90	3	10
6.		1.7	1.7	1.7	1.8	30	17	57	13	43
7.		5.1	4.9	4.7	5.7	30	7	23	23	77
8.		16.4	12.1	18.9	18.3	30	16	53	14	47
9.		10.6	10.4	11.2	10.1	30	25	83	5	17
10.		1.5	2.1	1.3	1.0	30	17	57	13	43
11.		0.8	0.7	0.7	0.9	30	9	30	11	37
12. 가		0.7	0.7	0.8	0.7	30	0	0	30	100
13.		0.7	0.8	0.3	1.0	30	6	20	24	80
14.		28.0	36.3	28.7	19.0	30	17	57	13	43
15.		3.1	3.0	2.8	3.5	30	3	10	27	90
16.		0.1	0.0	0.2	0.2	30	4	13	26	87
17.		1.9	3.2	1.3	1.2	30	8	27	22	73
18.		0.1	0.0	0.0	0.2	30	2	7	28	93
19.		34.3	33.0	39.0	31.0	30	10	33	20	67
20.		2.3	0.0	7.0	0.0	30	2	7	28	93
21.		0.1	0.0	0.0	0.2	30	0	0	30	100
22.		6.2	0.0	3.0	15.6	30	2	7	28	93

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					N		%		%
23.	0.0	0.0	0.0	0.0	30	0	0	30	100
24.	11.3	10.8	9.1	14.0	30	6	20	24	80
25.	2.8	3.1	2.6	2.6	30	3	10	27	90
26.	0.5	0.0	0.8	0.6	30	4	13	26	87
27.	0.6	0.6	0.4	0.8	30	11	37	19	63
28.	2.5	2.6	2.2	2.8	30	24	80	6	20
29.	10.8	7.1	9.3	16.0	30	9	30	21	70
30.	3.7	3.4	1.0	6.6	30	3	10	27	90
31.	34.5	40.4	33.3	29.9	30	23	77	7	23
32.	21.5	36.4	7.6	20.5	30	10	33	20	67
33.	39.9	45.5	42.3	32.0	30	27	90	3	10
34.	33.0	36.1	32.7	30.3	30	23	77	7	23
35.	5.1	6.6	5.8	2.8	30	6	20	24	80
36.	5.1	9.8	0.0	5.4	30	16	53	14	47
37.	1.9	1.0	2.1	2.7	30	17	57	13	43
38.	3.9	3.5	2.5	5.6	30	16	53	14	47
39.	0.9	0.4	0.7	1.5	30	15	50	15	50
40.	1.5	0.8	1.5	2.1	30	13	43	17	57
41.	4.7	0.0	12.5	1.7	30	1	3	29	97
42.	3.3	3.4	2.9	3.5	30	27	90	3	10
43.	3.7	4.2	3.5	3.5	30	27	90	3	10
44.	3.2	3.4	3.0	3.2	30	29	97	1	3
45.	7.5	7.5	7.8	7.3	30	30	100	0	0
46.	1.0	1.5	0.7	0.8	30	10	33	20	67
47.	6.2	7.6	6.0	5.0	30	30	100	0	0
48.	3.3	3.9	2.5	3.6	30	27	90	3	10
49.	2.0	2.8	2.4	0.7	30	6	20	24	80
50.	29.6	37.6	28.2	23.0	30	11	37	19	63
51.	0.5	0.8	0.3	0.4	30	14	47	16	53

< 17>

46%

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50%

50%

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100%

가

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50m

90%가

10m

3%

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90%

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가 50%

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가 , , , , ,

가

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33%

67%

가

가

가 가

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가

20% 10%

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80%

20%

1)

< 18>

				/	/	/%	
			10	50	57	114	
			10	45	40	89	
			10	49	50	102	
			30	144	147	102	
			10	10	15	150	
			10	10	19	190	
			10	10	19	190	
			30	30	53	177	
	50m		10	10	12	120	
			10	10	9	90	
			10	10	13	130	
	10m		10	20	3	15	
			10	20	5	25	
			10	20	3	15	
		50m	30	30	34	113	
		10m		60	11	18	
			10	10	13	130	
			10	10	12	120	
			10	10	11	110	
			30	30	36	120	
			10	10	10	100	
			10	10	10	100	
			10	10	11	110	
			30	30	31	103	
			50	110	110	100	
			50	105	95	90	
			50	109	107	98	
			150	324	312	96	

< 18> 96%
 가 100%, 가 90%, 가
 98% .
 가 114% 가 89% 가 102%
 .
 150% 190%
 190%
 가 .
 50m 113% 10m
 18% .
 120% 103%
 .

2)

< 19>

			/	/	/%	
		10	20	17	85	
		10	20	17	85	
		10	20	18	90	
		30	60	52	87	
		10	80	49	61	
		10	80	47	59	
		10	80	57	71	
		30	240	153	64	
		10	160	121	76	
		10	160	189	118	
		10	160	183	114	
		30	480	493	103	
		10	100	104	104	
		10	100	112	112	
		10	100	101	101	
		30	300	317	106	
		10	20	21	105	
		10	20	13	65	
		10	20	10	50	
		30	60	44	73	
		10	20	7	35	
		10	20	9	45	
		10	20	9	45	
		30	60	25	42	
가		10	40	7	18	
		10	40	8	20	
		10	40	7	18	
		30	120	22	18	

			/	/	/ %	
		10	20	8	40	
		10	20	3	15	
		10	20	10	50	
		30	60	21	34	
		10	200	363	182	
		10	200	287	144	
		10	210	190	90	
		30	610	840	138	
		10	80	30	38	
		10	80	28	35	
		10	80	35	44	
		30	240	93	39	
		10	10	0	0	
		10	10	2	20	
		10	10	2	20	
		30	30	4	13	
		10	10	0	0	
		10	40	13	33	
		10	40	12	30	
		30	120	57	48	
		10	10	0	0	
		10	10	0	0	
		10	10	2	20	
		30	30	2	7	
		130	720	729	101	
		130	720	700	97	
		130	730	601	82	
		420	2,170	2,030	94	

< 19>

94%

가 101%

가 97%

82%

.

87%

.

85%

90% .

64% 61%

59% 71% .

103% 76%

118% 114%

. .

106% 104% 112%

101% 가

가 .

73% 105% 65%

50% 가

. .

42% 35% 45%

45% 가 18% 18%

20% 18%

. .

34% 40% 15%

50% 가

. .

138% 182% 144%

90% 가 .

39% 38% 35%

44% , 13%

. .

48% 80% 33%

30% 가

, 7% .

가 20%

가 .

3)

< 20>

			/	/	/%	
		10	500	330	66	
		10	500	390	78	
		10	500	310	62	
		30	1,500	1,030	69	
		10	40	0	0	
		10	40	70	175	
		10	42	0	0	
		30	122	70	57	
		10	500	0	0	
		10	500	0	0	
		10	500	2	0	
		30	1,500	2	0	
		10	500	0	0	
		10	500	30	6	
		10	500	156	31	
		30	1,500	186	12	

			/	/	/ %	
		10	500	0	0	
		10	500	0	0	
		10	500	0	0	
		30	1,500	0	0	
		10	140	108	77	
		10	140	91	65	
		10	140	140	100	
		30	420	339	81	
		10	40	31	78	
		10	40	26	65	
		10	40	26	65	
		30	120	83	69	
		10	20	0	0	
		10	20	8	40	
		10	20	6	30	
		30	60	14	23	
		10	10	6	60	
		10	10	4	40	
		10	10	8	80	
		30	30	18	60	
		90	2,250	475	21	
		90	2,250	619	28	
		90	2,252	648	29	
		270	6,752	1,742	26	

< 20>

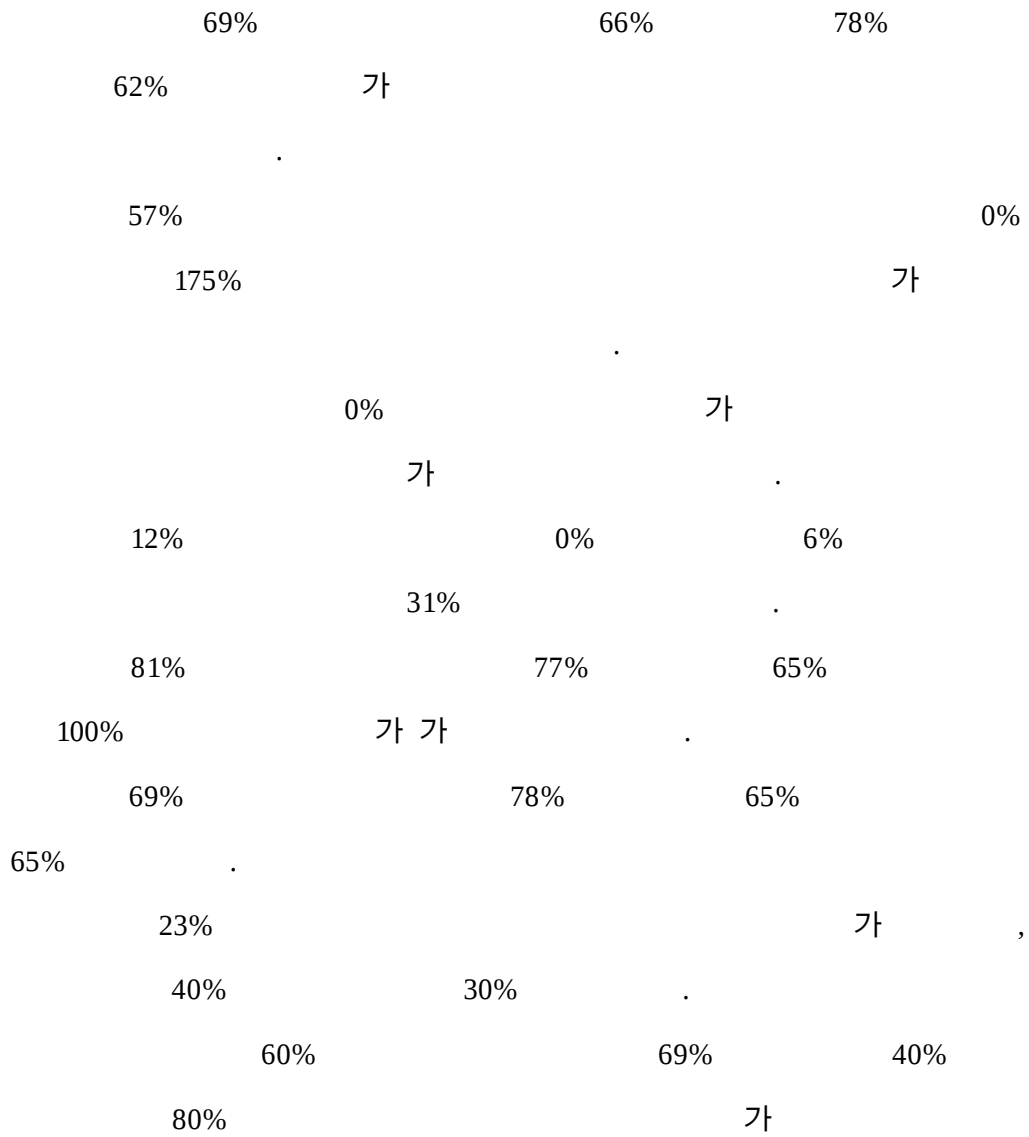
26%

21%

28%

29%

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4)

< 21>

			/	/	/%	
		10	20	26	130	
		10	20	22	110	
		10	20	28	140	
		30	60	76	127	
		10	200	71	36	
		10	200	93	47	
		10	200	160	80	
		30	600	324	54	
		10	100	34	34	
		10	100	10	10	
		10	100	66	66	
		30	300	110	37	
		10	300	404	135	
		10	300	333	111	
		10	300	299	100	
		30	900	1,036	115	
		10	300	364	121	
		10	300	76	25	
		10	300	205	68	
		30	900	645	72	
		10	300	455	152	
		10	300	423	141	
		10	300	320	107	
		30	900	1,198	133	

			/	/	/ %	
		10	300	361	120	
		10	300	327	109	
		10	300	303	101	
		30	900	991	110	
		10	110	66	60	
		10	110	58	53	
		10	110	28	25	
		30	330	152	46	
		10	50	98	196	
		10	50	0	0	
		10	50	54	108	
		30	150	152	101	
		90	1,680	1,879	112	
		90	1,680	1,442	86	
		90	1,680	1,463	87	
		270	5,040	4,784	95	

< 21>

95%

,

가 112% 가

86%

87%

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127%

130%

110%

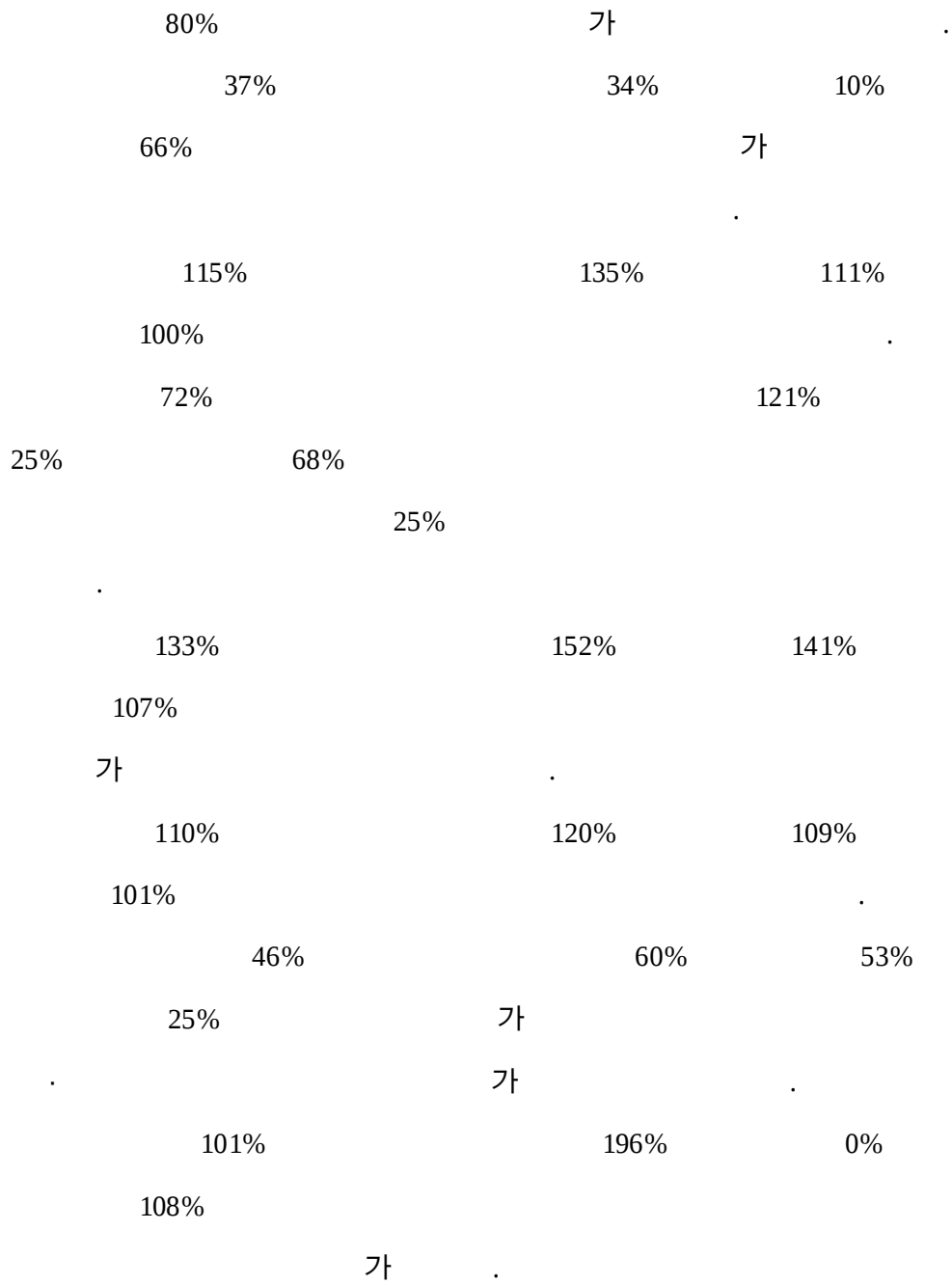
140%

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54%

36%

47%



5)

< 22>

			/	/	/%	
		10	10	10	100	
		10	10	21	210	
		10	10	27	270	
		30	30	58	193	
		10	10	35	350	
		10	10	25	250	
		10	10	56	560	
		30	30	116	387	
		10	10	4	40	
		10	10	7	70	
		10	10	15	150	
		30	30	26	87	
		10	10	8	80	
		10	10	15	150	
		10	10	21	210	
		30	30	44	147	
		10	500	0	0	
		10	500	125	25	
		10	500	17	3	
		30	1,500	142	9	
		50	540	57	11	
		50	540	193	36	
		50	540	136	25	
		150	1,620	386	24	

< 22> 24%
 11% 36% 25%
 , ,
 .
 193% 100% 210%
 270% .
 387% 350% 250%
 560%
 .
 87% 40% 70%
 150% 가
 .
 147% 80% 150%
 210% 가 가 .
 9% 25% 3%
 , 가
 .

6)

< 23>

			/	/	/ %	
		10	20	34	170	
		10	20	29	145	
		10	20	35	175	
		30	60	98	163	
		10	20	42	210	
		10	20	35	175	
		10	20	35	175	
		30	60	112	187	
		10	20	34	170	
		10	20	30	150	
		10	20	32	160	
		30	60	96	160	
		10	20	75	375	
		10	20	78	390	
		10	20	73	365	
		30	60	226	377	
		10	20	15	75	
		10	20	7	35	
		10	20	8	40	
		30	60	30	50	
		10	20	76	380	
		10	20	60	300	
		10	20	50	250	
		30	60	186	310	
		10	20	39	195	
		10	20	25	125	
		10	20	36	180	
		30	60	100	167	

			/	/	/ %	
		10	40	28	70	
		10	40	24	60	
		10	40	7	18	
		30	120	59	49	
		10	400	376	94	
		10	400	282	71	
		10	400	230	58	
		30	1,200	888	74	
		10	10	8	80	
		10	10	3	30	
		10	10	4	40	
		30	30	15	50	
		100	590	727	123	
		100	590	573	97	
		100	590	510	86	
		300	1,770	1,810	102	

	< 23>	102%
가 123%	가	97%
86%	가	.
163%	170%	145%
175%		.
187%	210%	175%
175%		
.		
160%	170%	150%
160%		.
377%	375%	390%

•

4

1

, 2001 6
10 , 10 , 10 30
, 1998

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1) 1
147%,
139%, 124%
, 2 , 3 ,
1 ,
1 1 6.07
m² 5.88m² 6.92m²가 .

2)
100% 가 , 95%, 83%,

82%,

42%,

30%

0%

.

3)

102%

가

96%,

95%,

94%,

26%,

24%

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가

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4)

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가

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2

1)

가

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가

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2)

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가

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3)

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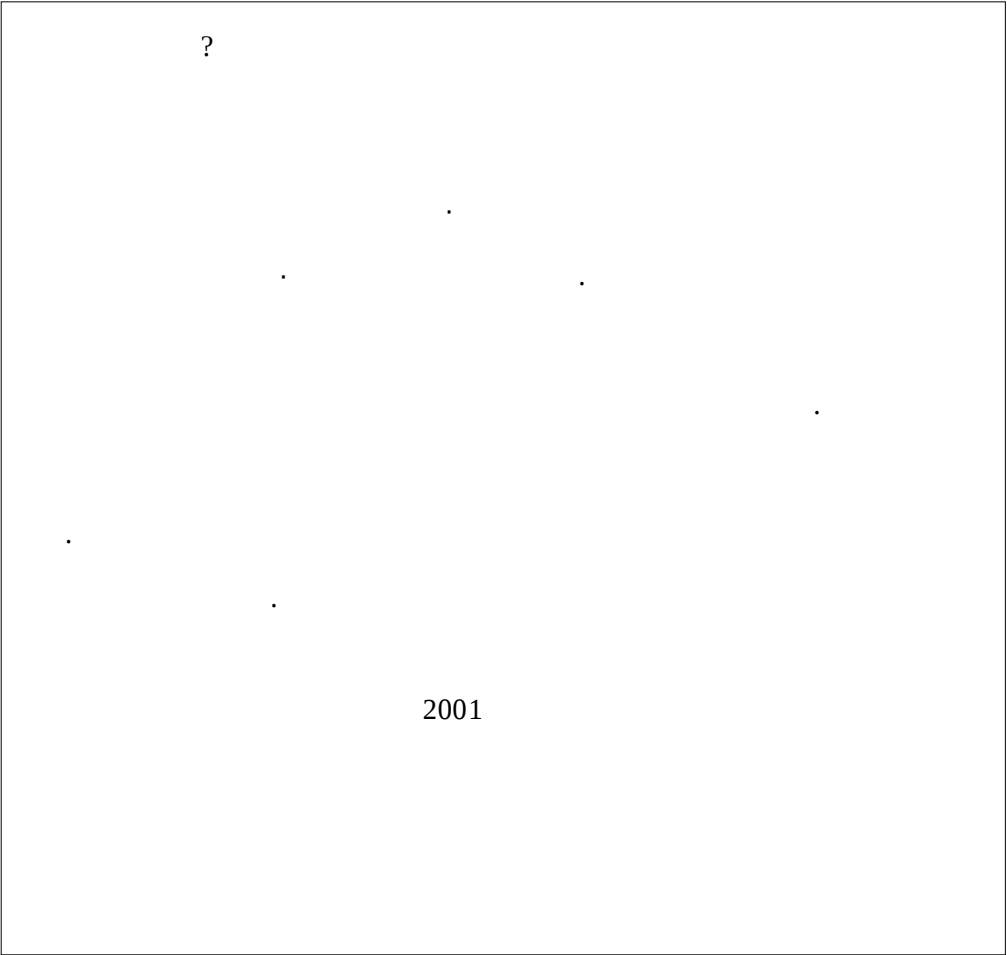
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4)

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. 21 . 1990.
 . 가 . 13 , p.53.
 . 2000.
 . () . 2002.p.1153.
 . 1998.
 . 2000 .
 . 1985.p.140.
 . 1990.
 . 1980.
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 . 1976.
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 . 1996.
 . 1983.
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 6 . 1972.
 . 1981.
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 . 1999.



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1. ?()

2. ?
() () . ()

3. ? ()

4. ?

1 - () , () , ()

2 - () , () , ()

3 - () , () , ()

5. 가 가 ?

가

가

1 ()

1 ()

2 ()

2 ()

3 ()

3 ()

6. ?()m²

1.

.

	1.		100m ×2	
			10m × 5m	
	2.		ø28mm±1,2 1	
		()	1 :3 (. .)	
			, 4 1	
	3.			
	4.			
		()		
		()		
			66m ²	
	5.	()	132m ²	
	6.			
	7.			

2.

.

	1.			
			50m 10m	
	2.			
		가		
			4.0kg, 2.721kg	
			ø2.135m	
			1.0kg	
			ø2.5m	
	3.			
			2 1	

	4.			
			2 1	
			2 1	
			.	
			.	
			.	
			.	
			.	
	5.			
	6.			