

幼稚園 建築計劃基準

基礎 研究

A Study on the Architectural Design Guidelines for Kindergarten

朱 瑞 玲* 姜 美 先**
Ju, Seo-Ryeong Kang, Mi-Sun
崔 景 淑*** 裴 是 花****
Choi, Kyung-Sook Bae, Si-Hwa

Abstract

The purpose of this study is, to increase the number of and improve environmental quality of kindergartens, to minimize the time and effort required in the design and construction of kindergartens by providing architectural design guidelines(space program and area guideline). The prerequisite condition of this study, in particular, is to provide the standardized design process for designing kindergartens which has merits such as provision of more qualified environment, minimization of the effort required in the design.
Through the review of domestic regulations, domestic and foreign guidelines, and on-sight investigation of existing kindergartens, the practical guidelines for space program, areas, elevations and material planning were proposed.

Keywords : kindergarten, architectural design guidelines

1.

1.1.

, 3

가

* ,
** ,
*** ,
**** ,
1999 ()

1.2.

10

2.

3

180

3

가

가

15483)>

1.

1.

(:m)

		*							
1	30	180	150	250	458	150	160	400	938
	40	205	200	250	511	150	160	400	1091
2	30	257	260	330	794	170	180	500	1334
	40	307	320	410	978	190	200	600	1578
3	30	335	350	450	1069	200	210	650	1699
	40	409	440	570	1344	230	240	800	2064
4	30	515	440	570	1344	230	240	800	2064
	40	614	560	730	1711	270	280	1000	2551
5	30	592	530	690	1619	260	270	950	2429
	40	716	680	850	2078	310	320	1160	3038
6	30	670	620	790	1894	290	300	1080	2794
	40	818	800	970	2444	350	360	1320	3524
7	30	747	710	880	2169	320	330	1200	3159
	40	921	920	1090	2811	390	400	1480	4011
8	30	825	800	970	2444	350	360	1320	3524
	40	1023	1040	1210	3178	430	440	1640	4498

* (*1.55)

3.

3.1.

10

2.

				()	()
1		99	2	60	40
2			2	60	60
3		86	1	120	91
4		84	1	200	129
5		98	2	200	188
6		78	2	200	198
7		88	1	200	29
8		89	4	300	300
9		97	3	310	154
10		97	2	360	207
				201	139.6

(1)

6 , 4 .
 2
 3 , 4 .
 (7)
 7 ,
 1 .
 (4) , (4)

3.

				1	
201	139.6	4.5	28.3	19.1	1.5

(2)

1)

, , 4 .

4.

. (5.)

()

가

(60%)

(30%)

2)

가

()

()

()

가

()

, 가

가

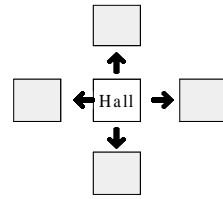
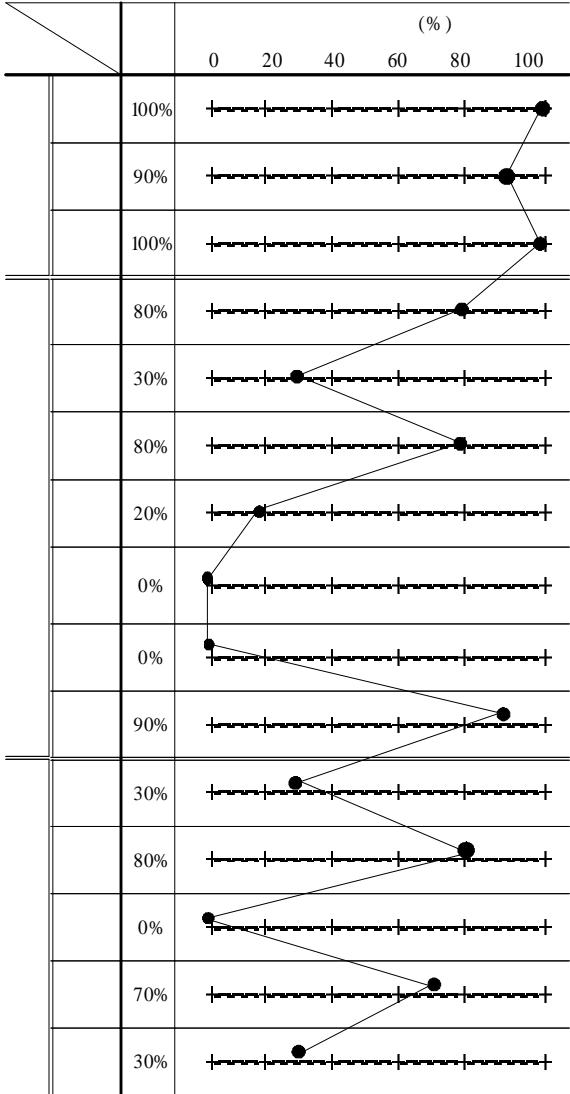
(40%), (

)(60%)

1

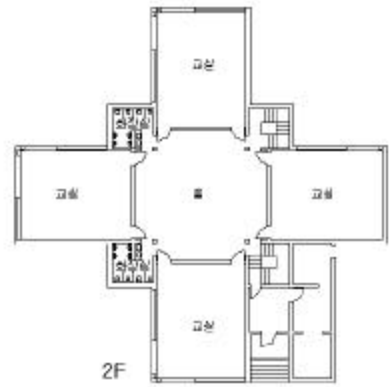
가

5.



c)

1.



2.

8. 2

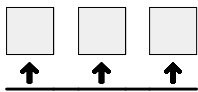


3.

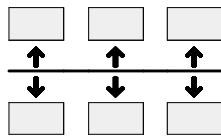
1. 1

3)

5.



a)



b)

2096m²,

449m²

1139m²
가

3

6.

: m² (%)

		1 2 3 4 5 6 7 8 9 10										1 2 3 4																		
1	60	65	65									130	130	9	26	8	9	8	9	34	32	40	9	9	65	2	930	1416 (m ²)		
												9.2	9.2	0.6	1.8					2.4	2.3	2.8	0.6	0.6	4.6	0.1	66	100 (%)		
2	60	61	61									122	61		30	20	20			40					30		254	537 (m ²)		
												22.7	11.4		5.6					7.4					5.6		47.3	100 (%)		
100												126	95.5	9	32.5					37	32	40	9	9	47.5	2	592	977 (m ²)		
(%)												12.9	9.8	0.9	3.3					3.8	3.3	4.1	0.9	0.9	4.9	0.2	60.6	100 (%)		
3	120	52	56	61								169	24	11						11	6				4		30	255 (m ²)		
												66.3	9.4	4.3						4.3	2.4				1.6		11.8	100 (%)		
4	200	75	78	78	78	82						391		15	5	30	6	6	8	8	28	27	30		17	38	27	49	657 (m ²)	
												59.5		2.3	0.8	4.6				4.3	4	4.6		2.6	5.8	4.4	7.5	100 (%)		
5	200	39	34	40	64	64	60					301	75	9		11	12	9	12	33	15				5		337	786 (m ²)		
												38.3	9.5	1	1.4					4.2	2				0.6		43	100 (%)		
6	200	100	100	85	54	96	96					531	137	18	4	50	6	4	14	14	38	31	31	13	10	30	31	429	1353 (m ²)	
												39	10	1.3	0.3	3.7				2.8	2.3	2.3	1	0.7	2.2	2.3	32	100 (%)		
7	200	49	53									102	181	8						6					3		62	362 (m ²)		
												28	50	2.2						2					0.8		17	100 (%)		
100-200		63	62	63	59	80	78					299	104	12.2	4.5	30.3	7.5	6.3	11	22	23.2	27	20.5	31	15	12	29	31	181	683 (m ²)
												42.8	15.3	1.8	0.7	4.4				2.4	4.0	3	4.5	2.2	1.8	4.2	4.5	21.5	100 (%)	
8	300	51	60	52	51	70	52	51	50	50	52	539	380	18	6	78	9	8	8	10	35	21			27		992	2096 (m ²)		
												26	18	0.9	0.3	3.7				1.7	1				1.3		47.3	100 (%)		
9	310	57	65	57	65	57	65	59				425	99			59	16	11	4	7	38	25	40	8	5	12	12	853	1576 (m ²)	
												27	6.3		3.7					2.4	1.6	2.5	0.5	0.3	0.8	0.8	54	100 (%)		
10	360	58	82	82	57	59	80	65				483	228	14		51	14	18	18	18	68	20			9		732	1605 (m ²)		
												30	14	1	3.2					4.2	1.3				0.6		46	100 (%)		
200-400		55	69	64	58	62	66	58	50	50	52	482	236	16	6	63	13	12	10	12	47	22	40	8	14	12	12	859	1759 (m ²)	
												27	13.4	0.9	0.3	3.6				2.7	1.3	2.3	0.5	0.8	0.7	0.7	48.8	100 (%)		
												302	145	12.4	5.3	42				36	27	25	37	11	12	30	15	544	1139 (m ²)	
												27	13	1	0.5	3.7				3.2	2.4	2.2	3	1	1.1	2.6	1.3	47.7	100 (%)	

가

가

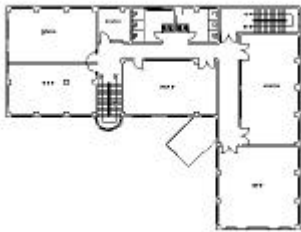
65.1m² ,

1 5m²/ 1 63m² 1 2.4 m²/ 3.3m²(Wills and Stegman) 5.6m² , 23.6m²/ , 1.8m²/ 가 6.) 1 (

46.6% , 6.3%, 139m², 380m², 9.1% . 23.5m² .



4. 4. 1



5. 10. 2

12.4m²,
(100 ~200)

3 5.3m²

(3)

(7.)

가
가

7.

1		(,)	logo,sign	
2		-	sign	
3		-		
4		-	-	
5		-		
6		-		
7		-	logo	
8		-		
9		(,)		
10	ㄱ +			

(4)

가 가

가 가

(8.)

3.2.

3.1.

1) 가 (2000),

8.

	(70%)	(80%)	(60%)
	(30%)	(10%)	(40%)
		(10%)	
	(50%)	(70%)	(60%)
	(30%)	(20%)	(30%)
	(10%)	(10%)	(10%)
	(10%)		
	(70%)	(80%)	(50%)
	P-TILE (10%)	(20%)	(30%)
	(10%)		(20%)
	(50%)	(80%)	(40%)
	(20%)	(40%)	(40%)
	P-TILE (10%)	(20%)	(20%)
	(20%)		
	(100%)	(80%)	(40%)
		(20%)	(30%)
			(20%)
			(10%)
		(70%)	
		(20%)	
		(10%)	

(2.9), (2.7), (2.6), , ,
(2.5), (2.3)

(2)

가

, 가 가 , 3,4

>

, 5

, >

>

가

9.

1	2	3	4	5
	()			

(90%)

90%가

(50%)

(80%)

3

가

(1)

(80%)

, 4

'(60%)

(70%), (60%), (70%),
(50%), (60%), (50%), (70%)

, 5

'(50%)

(50%),

5

(40%)

가 가

.(30%)

(3.3)

가

(2.0)

(2.8),

가
 2 (80%)
 (60%), 1 (40%)
 (70%)
 (70%)

(70%)
 () 50%가

가 67%

10.

	67%		19%		19%
			가 ()		

4.

4.1.

2)
 (U) U

가 가

(Steel Framed Structure)³⁾

4.2.

4.5
 (1.) 4, 6, 8
 30 40
 28.3

30
 11.

120	4	3,4,5
180	6	
240	8	

2)

(MC ; Modular Coordination)

3)

(2 × 4)
 (Steel House)

가

4.3.

15 20m² n

가

가

(1)

65.1m² , 100m², 34m²
 1 2.4
 m²

12. 1
 2.13m²/ 3.8m²/

4)

- 1 :2.13m² × 30 = 63.9m²
 - 1 :2.83m² × 30 = 84.9m²

12. 1

	1 (m ²)	
	2.4	
	2.13	63.9(30)
	2.83	84.9(30)
(97, 9.23)	2.13	66, 30
	2.83	50 (92. 10. 1)
	3.8	(1991)
	2.3	(1981)
	3.27- 5.14	
	66 /1	1 - 40
	50 /1	30

(2)

15 20m²

4) (, , , ...)

37m²

14. 40 60m²가
 2

13.

(m ²)	
	11.06
3	1 4.04 가
4	12.96
6	19.44

14.

	m ²	
	30	21.28m ²
(1990)		
(1998)		64
		32
		72 (+)
Moore(1994)	12- 16	13.5- 19.8
(1994)	30	21

4.4. (U)

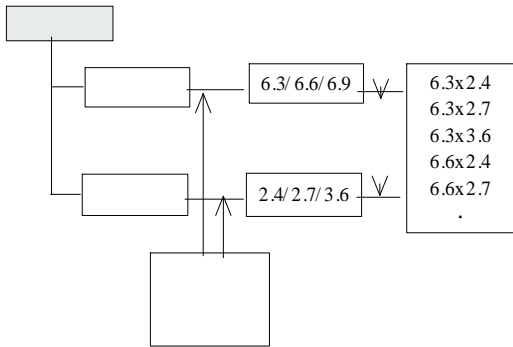
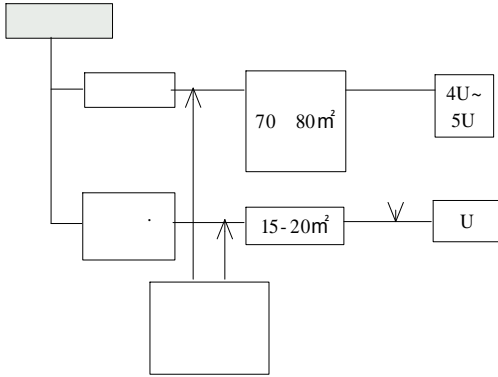
15 20m²(U)

70 80m²(4U 5U)
 (U)

(U)

6.0 6.6m
(15 20m²)

(U) ; 6.6*2.7=17.82m²



6.

4.5.

- 1) 4 : 4 120 (1 30)
- : 8
- , 4 , 1
- 1 , 1
- 2) 6 : 6 180 (1 30)
- : 12
- , 6 , 1
- 2 , 1 , 1
- 3) 8 : 8 240 (1 30)
- : 14
- , 8 , 1
- 2 , 1 , 1
- 15. 4 (m²)

		*
	4	(6.6*2.7)*4*4 = 285.12
	2	(6.6*2.7)*2*2 = 71.28
	1	(6.6*2.7)*7*1 = 124.72
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	-	-
	1	(6.6*2.7)*1 = 17.82
()	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
(net area)		623.7

16. 6 (m ²)		*
	6	(6.6*2.7)*4*6 = 427.68
	3	(6.6*2.7)*2*3 = 106.92
	1	(6.6*2.7)*8*1 = 142.56
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*1 = 17.82
()	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
(net area)		837.54

17. 8 (m ²)		*
	8	(6.6*2.7)*4*8 = 570.24
	4	(6.6*2.7)*2*4 = 142.56
	1	(6.6*2.7)*8*1 = 142.56
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*2*1 = 35.64
	1	(6.6*2.7)*1 = 17.82
()	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
	1	(6.6*2.7)*1 = 17.82
(net area)		1087.02

4.6.

4.5

, ,)

16 , , N/G(/) 0.74 0.87 .

18. (m ²)			
	623.7	623.7	623.7
4	785.52	717.72	848.57
	N/G 0.80	0.87	0.74
	837.54	837.54	837.54
6	1054.84	963.80	1139.51
	N/G 0.80	0.87	0.74
	1087.02	1087.02	1087.02
8	1369.04	1250.89	1478.94
	N/G 0.79	0.87	0.74

5.

가

3

(), ,

- 가
가
1. 가 (2000),
 2. (1998),
 3. (1992),
 4. (1997),
 5. (1997),
 6. 10 (1990),
 7. (1997),
 8. (1999),