

A Comparative Study on Space Usage Satisfaction of Facility Personnel Based on New and Expanded • Rebuilt the Small Scale Elderly Care Facilities in Gwangju

Gim Jeong-Mi¹, Cho Ju-Young², Lee Hyo-Won³

¹Dept. of Architecture, Chonnam National University, Gwangju, Korea,
budda1981@hanmail.net

²Dept. of Architecture, Chonnam National University, Gwangju, Korea,
dodo1030@hanmail.net

³Dept. of Architecture, Chonnam National University, Gwangju, Korea,
leehw@jnu.ac.kr

ABSTRACT: A Small-scale Elderly Care Facility is a complex facility that provides the facility service and the home care service at the same time, and it is expected to have increased demand in the future. The construction method of the facility can be largely divided into two. The first construction method is to newly build to plan complex operation of the Small-scale Elderly Care Facility and the second construction method is to expand or rebuild the facility in order to satisfy the needed space for the existing single facility.

A comparative analysis on the facility personnel satisfaction with the personnel of newly constructed facility and the personnel of expanded or rebuilt facility as groups was done, and the results are as follows. First, satisfaction on interior space was higher in the personnel of newly constructed facility than in the personnel of expanded facility. Second, facilities that plan to change into the Small-scale Elderly Care Facility through expansion or remodeling must make sure to spare space for each space so that the services can be offered adequately. Third, the space that showed largest difference in average satisfaction between two groups was the program room, followed by stairs, ramp, elevator, office, washroom, laundry room, toilet room, corridor, kitchen, bedroom/living room, and physiotherapy treatment room. Fourth, the Small-scale Elderly Care Facilities positioned within the cities are the mostly single facility because of limited building sites, and they are constructed vertically in order to satisfy necessary spaces.

Keywords: A Small-scale Elderly Care Facility, construction method, space usage satisfaction, facility personnel

1. INTRODUCTION

1.1 Background and purpose of study

The government is operating the Long-term Care Insurance policy since July of

2008 by means of preparation for the aged which is rapidly growing in present days, and they enacted the policy on the Long-term Care Insurance that provides the home

care service and the facility service for more effective the Long-term Care Insurance.

A Small-scale Elderly Care Facility is the Long-term Care facility, and it is a complex facility that provides the facility service and the home care service at the same time.

The construction method to receive the Long-term Care facility can be largely divided into two. First construction method is to newly build to plan the complex operation of the facility and second construction method is to expand or remodel the facility in order to satisfy the needed space for the existing single facility. For the case of the latter method, which wasn't planned at first and just expanded to be assigned space as the Small-scale Elderly Care Facility, has a problem of lacking in the systematic connection between facilities¹ and the diverse problems for space usage are expected from insufficiency of proper area caused from the facility standard of which spaces other than bedroom and livingroom can possibly be used together within bounds that it does not trouble the facility.

This study had put personnel of the newly constructed facility that was planned to be a Small-scale Elderly Care Facility from the start and the personnel of the facility which was assigned as a Small-scale Elderly Care Facility by expanded or remodeled the existing single facility into each group, question each groups about space satisfaction and comparatively analyze it.

The study result hereafter is expected to be an applicable basic data for establishing proper direction of expansion or remodeling when the existing single facility is trying to convert to a Small-scale Elderly Care Facility.

1.2 Method and scope of study

¹ Eun Young Lee, Jun Young So, Sang Ho Lee, A Study on Space Characteristics of Residential Complex Facility for the Aged. Proceedings of the Korean Institute of Interior Design Conference, 2008.4, p.68

In order to investigate the general status of the study target facility and the space usage satisfaction of the facility personnel, facility visitation, interview and survey were conducted as an investigation study through a survey analysis of the target facility.

Seven of out of ten Small-scale Elderly Care Facilities in Gwangju that had permitted visitation were selected as the target facility for investigation based on 2008 present condition data of the Elderly Welfare Facilities for the aged, and investigation was achieved with 3 visitations for four days from June 9 to June 12. In addition, 10 survey questions were given to each target facility and 63 copies were collected, and 50 of surveys were analyzed excluding 13 surveys which are insignificant to analyze.

The descriptive statistics and the frequency analysis of collected surveys were conducted using SPSSWIN(VER.12.0) program. The personnel of newly constructed facility and the personnel of expanded and remodeled facility were formed each separate group and satisfaction of two groups when using the facility was comparatively analyzed using t-test.

2. THEORETICAL STUDY

2.1 Definition and types of the Small-scale Elderly Care Facility

The Small-scale Elderly Care Facility, which is one of types of the Long-term Care facility², is the complex facility of providing

² Reorganization of Facility Classification of 「Management Guide of Long-term Care Facility, issued by the Ministry of Health and Welfare, 2008.04

Type	Specific Facility
The Long-term Care Facility Providing Facility Service	Elderly Care Facility
	Communal Living Home for the Aged
The Long-term Care Facility Providing Home Care Service	Care Visitation Service Facility
	Nursing Visitation Service Facility
	Bathing Visitation Service Facility
	Day•Night Care Service Facility
	Short-term Care Service Facility
	Welfare Goods Rental and Sales Store

the facility service and the home care service for the aged who need hands for senile diseases like dementia and paralysis. It means a facility that family, local community and country shared the support for the aged based on Deinstitutionalization.

Table 1: Types of the Small-scale Elderly Care Facility

Small-scale Elderly Care Facility	Type A: the Elderly Care facility(10 persons)+Day service center (10 persons)+Home Volunteer Dispatch Business(80 persons)
	Type B: the elderly care facility (15 persons)+Home Volunteer Dispatch Business(80 persons)

※ (Occupancy)

This Small-scale Elderly Care Facility is classified into type A, which complexly operates the Elderly Care facility, the day service center and the home volunteer dispatch business, and type B, which complexly operates the elderly care facility and home volunteer dispatch as in <Table 1>. The Small-scale Elderly Care Facilities should operate the Elderly Care Facility and the home volunteer dispatch business, but the day service center can be operated selectively according to actual status of the local. However, for the Small-scale Elderly Care Facilities to be newly constructed in 2008 are regulated to operate the day service center necessarily.

The occupancy of the Small-scale Elderly Care Facilities is restricted to maximum 29 persons for both two types in order to distinct from the previous Elderly Care facilities. However, since establishment of care communal living home for the aged as an annex to the Elderly Welfare facilities for the aged is possible, consideration for this should be realized together when designing the space.

Complex Facility of Providing Facility Service + Home Care Service	Small-scale Elderly Care Facility
--	-----------------------------------

2.2 Specific facilities standard of the Small-scale Elderly Care Facility³

The Elderly Care facility should apply the facility and arrangement standard of a special elderly care facility for the aged, but a single bedroom or a twin bedroom are recommended and the home volunteer dispatch business and the weekend care facility apply the existing single facility standard of the Welfare Law for the Aged⁴

As it is shown in <Table 2>, in the facility standard of the Long-term Elderly Care facilities, when the home care facilities like care visitation, nursing visitation, bathing visitation, and day and night care service facility are established under social welfare facilities, the spaces other than living room and bedroom, which are main habitation space of the aged, can be combined as far as it does not obstruct the business.

According to <Table 2>, the newly constructed facilities, which were planned to be the Small-scale Elderly Care Facility in the first place can compose a complex space for 2 or 3 facilities, but the existing single facilities, which converted to the Small-scale Elderly Care Facility through expanding and remodeling, are expected to have many problems in using spaces since they are not ready for complex operation of 2 to 3 facilities.

2.3 General status of the Small-scale Elderly Care Facilities in Gwangju⁵

14 facilities, which had more than 2 facilities registered under same address in Gwangju, were sampled out based on the 2008 Present Condition of the Elderly

³ Reorganization of facility standard in the text of the Management Guide of Long-term Elderly Care Facility, issued by the Ministry of Health and Welfare, 2008.04

⁴ Welfare Law for the Aged, enforcement regulation the Article 22, he Article 29, Annexed 4, Refer to the Annexed 9

⁵ Reorganization of the 2008 Present Condition of Welfare Facilities for the Aged data, issued by the Ministry of Health, Welfare and Family Affairs

Table 2: Specific Facility Standard of Small-scale Elderly Care Facility

Division For Each Facility		Bedroom/ Living room	Medical Care Room	Volun teer Room	Off ice	Medi cal /Nurs ing Room	Physiot herapy (operat ion) Treatm ent Room	Progr am Room	Living room/ Kitchen	Toilet	Wash room	Laundry /Drying Room	Emerge ncy Space for Disaster
Elderly Care Facility	30≤ Inmates	√	√	√	√	√	√	√	√	√	√	√	√
	10≤ Inmates	√	√			√	√	√	√	√	√		√
	<30												
Care Visitation					√								
Nursing Visitation					√								
Bathing Visitation					√								
Day/ Night Care Facility	10≤ Supplier	√				√	√		√	√		√	
	10> Supplier	√				√	√				√		

※ √: Mandatory Space for Establishment, Gray block: Combination-Possible Space

Welfare Facilities issued by the Ministry Health, Welfare and Family Affairs, and the general status of 10 facilities coming under as Small-scale Elderly Care Facility are followed as in <Table 3>.

The Small-scale Elderly Care Facilities in Gwangju are registered for 5 of each type a, type b and type c, and Gwangju-02,03,04,07,10 facilities have different establishment date of each specific facility.

Main complex types of the existing single facilities before converting to the Small-scale Elderly Care Facility are the free professional elderly care facility home volunteer dispatch center and daytime care facility, and the charged elderly care facility for the aged home volunteer dispatch center. Occupancy of 9 Small-scale Elderly Care Facilities other than Gwangju-10 is less than 30 persons, and Gwangju-01 and 06 does not have additional personnel for home volunteer dispatch center and daytime care service, and the personnel of inmate facility are holding the concurrent position.

3. GENERAL ANALYSIS ON SUBJECTS OF STUDY

3.1 Selection of Target Facilities and General Features

7 facilities out of 10 Small-scale Elderly Care Facilities in Gwangju, which had permitted visitation through sending an official notice for assistance and phone inquiry, were selected as the final target facilities and general features are presented in <Table 4>.

All 7 target facilities were the single type buildings, new facilities were 4 and expanded facilities were 3. Among Small-scale Elderly Care Facility types, type A is 3 places and type B is 4 places. To look at the complex facility type within single building, mixed type were 4 places, laminated type were 3 places, and most of the facilities are located in urban area. Number of survey copies collected from newly constructed facilities are 26, surveys collected from expanded facilities are 22, so total 50 copies of survey are collected.

Table 3: General Status of the Small-scale Elderly Care Facilities in Gwangju

Classification ID	Facility Type	Facility Division	Establishment Date	Number of Inmates (# of Annual Users)	Number of Professionals (Home Volunteer)	Classification ID	Facility Type	Facility Division	Establishment Date	Number of Inmates (# of Annual Users)	Number of Professionals (Home Volunteer)
Gwangju - 01	Type A	d	07.04.11	9	12	Gwangju -07	Type B	c	07.01.23	17	13
		f	07.04.11	95 (2,660)	- (24)			f	07.08.13	24 (1,152)	4 (17)
		g	07.04.11	9 (968)	-						
Gwangju - 02	Type B	e	05.08.18	16	11	Gwangju -08	Type A	d	07.06.28	17	14
		f	04.04.04	74 (1,742)	4 (60)			f	07.06.25	90 (4,320)	4 (22)
								g	07.06.25	9 (2,160)	2
Gwangju - 03	Type A	d	06.01.05	25	17	Gwangju -09	Type B	c	07.08.06	22	11
		f	99.02.18	80 (960)	4 (30)			f	07.08.13	62 (2,976)	4 (34)
		g	97.01.27	15 (180)	6						
Gwangju - 04	Type B	e	07.07.10	29	18	Gwangju -10	Type A	a	85.05.16	93	34
		f	04.04.22	48 (576)	4 (27)			b	07.05.08	66	22
Gwangju - 05	Type B	d	07.11.01	3	9			d	04.03.26	10	12
		f	07.11.01	32 (384)	4 (9)			f	07.05.08	2 (82)	12 (8)
Gwangju - 06	Type A	d	07.06.01	6	13			g	07.05.08	8	-
		f	07.06.01	87 (1,238)	- (20)			h	02.12.10	6 (30)	3
		g	07.06.01	14 (1,641)	-						

※ Note: a-Free Elderly care facility for the Aged/ b-Elderly care facility for the Age day Actual Expense/ c-Charged Elderly care facility for the Aged/d-Free Professional Elderly care facility / e-Charged Professional Elderly care facility/ f- Home Volunteer Dispatch Center/ g-Daytime Careion Facility/ h-Short-term Careion Facility

※ Gray block: Small-scale Elderly Care Facilities with different establishment date of specific facilities

An interview about target facility personnel with current status research of target facilities, and details of the interview can be summarized as follows. First, most of the existing single facilities converted to the Small-scale Elderly Care Facility to receive the Long-term Care Insurance payment, and because of complex facility, the number of facility inmates and personnel had increased.

Table 4: General Features of Target Facilities

Second, since most of the aged persons receive the home care services then choose to enter a facility if their health worsen, so the Small-scale Elderly Care Facility was planned which can make connected care possible with complex inmate facility and home care center. Third, it was planned as a form if single building in the small land since the target facilities are mostly located in

Classification Name	Small-scale Elderly Care Facility Type	Construction Type	Building Type	Complex Type	Number of Stories	Location	Number of Survey Copies
Gwangju-02	Type B	New	Single	Laminated	5 Floors	Suburban	8 copies
Gwangju-03	Type A	Expanded	Single	Mixed	4 Floors	Urban	8 copies
Gwangju-05	Type B	New	Single	Laminated	5 Floors	Urban Residential Street	8 copies
Gwangju-06	Type A	New	Single	Mixed	5 Floors	Urban Residential Street	6 copies
Gwangju-07	Type B	Expanded	Single	Laminated	5 Floors	Urban	6 copies
Gwangju-08	Type A	Expanded	Single	Mixed	5 Floors	Urban	8 copies
Gwangju-09	Type B	New	Single	Mixed	5 Floors	Urban	6 copies

urban area, and vertical expansion was made rather than horizontal expansion. Therefore facilities are so complex in single building, and this causes problem for the aged persons to pass the public circulation space for movement between the space. Because of this, there were many opinions that connection between facilities was not adequate enough. Forth, Gwangju-02,05,06,07,09 facilities that combined inmate facility and home volunteer dispatch center have a plan to even combine day care facility through expansion and remodeling or extra space available at the facility. Such trend is also showing up in the existing single facilities actively.

3.2 Selection of Survey Respondents and Their Personal Information

In this study, survey respondents were limited to facility personnel, and their personal information is shown in <Table 5>

50 respondents had been selected with fairly uniform distribution of age. Ratio of male respondents was 18% and female was 82% because of occupational characteristic. 40% of respondents were care nurses, followed by social worker (24%), clerk (16%), physical therapist and director (8%), and facility manager (2%). 70% of respondents had been working with their occupation for over 1 year and less than 5

years, and 14% worked less than 1 year or more than 5 years and less than 10 years.

Only 2% of respondents had been working for over 10 years with current occupation. Lastly, 76% of respondents worked for current facility for over 1 year and less than 5 years. 22% worked for less than 1 year and 2% worked for over 5 years.

3.3 Composition of Survey and Evaluation Category of satisfaction

A content of the survey is divided into two parts. First part asks personal information about facility personnel shown in <Table 5>, and second part is about the evaluation of satisfaction on overall interior space shown in <Table 6> and each of 13 specific spaces, based on 5-point Likert scale.

13 evaluation categories in <Table 6> include standard spaces for long-term care facilities published by the Ministry of Health & Welfare and Family during April 2008 and additional spaces used for movement such as corridor, stairs, ramp and elevator. Since all 7 facilities had capacity of less than 30 users, medical care room, volunteer room and office were combined for evaluation. Also, evaluation was based on the 'ability and ease of performance all duties of facility personnel required by each space.'

Table 5: facility personnel information

Personal Information	Type	Gender		Age				Occupation						Period of Work				Period of Service at Current Facility		
	Class	M	F	20s	30s	40s	50s	①	②	③	④	⑤	⑥	①	②	③	④	①	②	⑤
Frequency	f	9	41	12	10	18	10	4	12	8	20	2	4	7	35	7	1	11	38	1
	%	18	82	24	20	36	20	8	24	16	40	4	8	14	70	14	2	22	76	2

※ Legend - Occupation: ①Director/②Social Worker/③Clerk/④Care Nurse/⑤Facility Manager/

⑥Physical Therapist

- Period: ①x<1 year/②1 year ≤x<5 years/ ③5 years ≤x<10 years/④10 years /⑤5 years ≤x

4. COMPARATIVE ANALYSIS ON SATISFACTORY MEASURE ON SPACE

4.1 Comparative analysis on satisfaction on interior space

<Table 7> is the evaluation result of overall satisfaction on the entire interior space of facilities.

Overall satisfaction of personnel of newly constructed facility (average=3.46, standard deviation=0.637) was found to be higher

than that of personnel of expanded facility (average=2.68, standard deviation=0.894).

Difference in satisfaction on interior space usage between two groups was statistically significant ($t=3.613$, $p<0.01$).

As it can be seen from the comparison result of overall satisfaction on interior space, facility personnel feels that the activities can be performed more smoothly in the facility that has been newly planned and constructed than in the facility that has been expanded. As a result, score of newly constructed facility was higher.

Table 6: Evaluation Category of Satisfactory Measure

Interior Space					
Living Space	Administrative Space	Community Activity Space	Shared Space	Supply Space	Mobile Space
Bedroom/Living room	Medical Care Room Volunteer Room Office	Physiotherapy(operation) Treatment Room	Cafeteria/Kitchen	Laundry and Drying Room	Hallway
			Toilet		Stairs
	Medical/Nursing Room	Program Room	Washroom		Ramp
					Elevator

4.2 Comparative analysis on satisfaction for each specific space

<Table 8> shows the result of comparative analysis on satisfaction for each of 13 specific spaces.

Since most facilities combine two or more spaces as a complex space to save the area, number of response of specific spaces is not fixed.

Table 7: Evaluation Result of Satisfactory Measure on Interior Space

Details of Analysis	Personnel of Newly Constructed Facility			Personnel of Expanded Facility			t-test	
	Number of Response	Average	Standard Deviation	Number of Response	Average	Standard Deviation	t	sig.
Satisfactory Measure on Interior Space	28	3.46	0.637	22	2.68	0.894	3.613**	.001

※Evaluation Standard of Satisfaction :5 Stages Likert Index(Score 5:Very satisfied, Score 1:Very much dissatisfied) *p<.05, **p<.01, ***p<.000

While personnel of newly constructed facility showed a satisfaction of higher than 'Normal' with an average score of 3.49, personnel of expanded facility showed an average of 2.84 which is lower than 'Normal.'

Especially for expanded facility, average scores of movement spaces such as stairs, ramp and elevator were all lower than 3. Spaces with lowest satisfaction were program room, toilet room and office with respective order.

Table 8: Evaluation Result of Satisfaction on specific space

Details of Analysis		Personnel of Newly Constructed Facility			Personnel of Expanded Facility			t-test		△ Average Satisfactory Measure	
Classification	Specific Space	Number of Response	Average	Standard Deviation	Number of Response	Average	Standard Deviation	t	sig.	△	Rank
Living Space	Bedroom/ Living room	28	3.56	0.46	22	3.10	0.76	2.46*	.018	0.45	11
Administrative Space	Medical Care Room Volunteer Room Office	28	3.32	0.60	22	2.70	0.43	3.23**	.003	0.62	5
	Medical/ Nursing Room	28	3.24	0.54	22	3.00	0.65	1.20	.240	-	-
Community Activity Space	Physiotherapy (operation) Treatment Room	28	3.43	0.43	22	3.10	0.50	2.46*	.018	0.32	12
	Program Room	23	3.30	0.70	19	2.46	0.83	3.34**	.002	0.84	1
Shared Space	Cafeteria/Kitchen	28	3.48	0.42	22	2.94	0.60	3.23**	.003	0.53	10
	Toilet Room	28	3.22	0.69	22	2.66	0.59	2.73*	.010	0.56	8
	Washroom	28	3.76	0.35	22	3.18	0.37	3.84**	.001	0.58	6
Supply Space	Laundry/ Drying Room	25	3.52	0.53	20	2.95	0.58	3.43**	.001	0.57	7
Mobile Space	Hallway	28	3.50	0.75	22	2.95	1.09	2.10*	.041	0.55	9
	Stairs	28	3.54	0.74	22	2.73	0.99	3.16**	.003	0.80	2
	Ramp	20	3.50	0.51	22	2.81	0.85	3.10**	.004	0.68	3
	Elevator	28	3.60	0.74	22	2.95	0.95	2.74**	.009	0.65	4

※Evaluation Standard of Satisfactory Measure:5 Stages Likert Index(Score 5:Very satisfied, Score 1:Very much dissatisfied) *p<.05, **p<.01, ***p<.000

As a result of comparative analysis on satisfaction of facility personnel for each specific space using t-test, 12 out of 13 spaces excluding medical/nursing room showed statistically significant ($p < .05$) difference. Also, in all 12 spaces, satisfaction of personnel of newly constructed facility was higher than that of personnel of expanded facility. Difference in satisfaction was largest for program room, followed by stairs, ramp, elevator, office, washroom, laundry/drying room, toilet room, corridor, cafeteria, bedroom/livingroom, and physiotherapy treatment room.

According to the interview with facility personnel, the biggest reason for dissatisfaction about spaces that showed huge difference in satisfaction was the limitation of surface area. They indicated uncomfortable loading of tools because of small space area, inconvenient movement, and overlapping of spaces for programs as problems. While newly constructed facilities considered the space for program room, expanded facilities usually cannot provide separate space for program room due to space limitations, resulting in a low satisfaction. On the other hand, spaces that cannot be combined together such as bedroom/livingroom and physiotherapy treatment room showed high satisfaction in both newly constructed facility and expanded facility.

5. CONCLUSION

Our nation is experiencing various problems of the aged because of rapidly aging population. The government is planning to enforce the long-term care insurance policy since July 2008, and long-term care facilities were appointed to provide systematic long-term care insurance service.

A small-scale elderly care facility is a complex facility that provides facility service and home care service at the same time, and it is expected to have increased demand in the future because problems of existing

large-scale facilities such as region accessibility can be resolved. Construction method can be largely divided into two. The first construction method is to newly build to prepare complex operation of facility and the second construction method is to expand and remodel the building in order to satisfy the needed space for the existing single facility. However, diverse problems for space usage are expected from insufficiency of proper area caused from the facility standard of which the spaces other than bedroom and livingroom can possibly be used together within bounds that it does not problem the facility.

Comparative analysis on customer satisfaction with personnel of newly constructed facility and personnel of expanded facility as groups was done, and the results are as follows.

First, satisfaction on interior space was higher in personnel of newly constructed facility than in personnel of expanded facility.

Second, facilities that plan to change into small-scale elderly care facility through expansion or remodeling must make sure to spare room for each space so that the services can be offered adequately.

Third, the space that showed largest difference in average satisfaction between two groups was the program room, followed by stairs, ramp, elevator, office, washroom, laundry room, toilet room, corridor, cafeteria, bedroom/livingroom, and physiotherapy treatment room. While spaces that are used frequently by the elderly and space that cannot be used together had little difference in satisfaction, satisfaction of spaces for Personnel differed largely because not enough spatial consideration was given when expansion was made. Current standard that restricts space by basing it on the number of people at the facility does not consider facility personnel. Main spaces such as medical care room, volunteer room, and office used by facility personnel must be given appropriate sizes based on the number of staffs working for the facility.

Fourth, small-scale elderly care facilities positioned within the cities are mostly single buildings because of limited building sites, and they are constructed vertically in order to satisfy necessary spaces. This is why spaces of facility have to be divided into many stories. Since the elderly with inconveniency must move using the movement space, stairs, corridor, ramp, and elevator must be given larger surface areas as the number of people increases.

This study divided the experimental group into two depending on the method of construction of elderly care facilities with the case of Gwangju. The purpose of this study was to find the space for which difference in satisfaction between the two groups is large using comparative analysis, but this study was limited in that the number of cases studied is small and satisfaction of the users of facility had not been studied. A follow-up study will be made to investigate the satisfaction of both facility users and personnel using increased number of cases, and as this follow-up study as a foundation, the basis for space plans of small-scale elderly care facility facilities will be prepared.

ACKNOWLEDGEMENT

"This work was supported by the Korea Research Foundation Grant funded by the Korean Government(MOEHRD)" (The Regional Research Universities Program/Biohousing Research Institute)

REFERENCES

- [1]Eun Young Lee, Jun Young So, Sang Ho Lee, A Study on Space Characteristics of Residential Complex Facility for the Aged. Proceedings of the Korean Institute of Interior Design Conference, 2008.4, p.68
- [2]Reorganization of facility standard in the text of the Management Guide of Long-term Elderly care facility, issued by the Ministry of Health and Welfare, 2008.04
- [3]Welfare Law for the Aged, enforcement regulation the Article 22, he Article 29, Annexed 4, Refer to the Annexed 9
- [4]Reorganization of the 2008 Present Condition of Welfare Facilities for the Aged data, issued by the Ministry of Health, Welfare and Family Affairs
- [5]Oh,Eun-Jin, Park,Hee-Sun, A Study on Growing Needs for Adult Day Service Center in Seoul under the New Longterm Care System. Vol 12. pp41-50. Korea
- [6]Nam,Youn-Ok, A Study on the space standards of daycare facilities with the introduction of care insurance in Germany, Vol 13. Pp25-35. Korea
- [7]Eun Young Lee, Jun Young So, Sang Ho Lee, A Study on the Spatial Characteristics of Senior Complexes in Japan. Vol 16. pp161-171. Korea