Case Studies of the Workplace Learning in Small and Medium Enterprises In Korea

Young Saing Kim, Yang Bae Yoon

KRIVET 한국직업능력개발원

Index

List of Tables

List of Figures

I. Introduction

1. Purposes of Project

Unlike large organizations, SMEs (Small and Medium-sized Enterprises) are characterized by the fact that informal workplace learning plays a very important role in the formation of skills (Kim, Young Saing, 2007). This project aims to analyze specific cases in practical workplace learning, important in developing new knowledge, technology, and skills, and in creating core competency. At the same time, it is valuable to explore and facilitate the actual status of workplace learning of SMEs in Korea.

In addition, the research methods designed by ILO (International Labor Organization), which produced examples of workplace learning in Korean SMEs, illustrate how to support workplace learning in Asian SMEs.

2. Research and Project Contents

In order to grasp the whole picture of informal workplace learning in Korea, it is necessary, firstly, to draw upon practical examples using the technique of case analysis, and then to study its characteristics by application of the informal learning theory. Subsequently, the following research is made to provide the information necessary for understanding and strengthening informal workplace learning.

◦ Understanding the actual status of workplace learning in enterprises
  - Corporate scope, industrial fields, relevant fields, and organization
  - Ability development investment, participation time, the usage level of employment insurance
  - Competitiveness improvement strategies and middle-and long-term project plans

◦ The usage level of workplace learning for fostering expert workforce
  - Frequency and strategic importance of workplace learning
  - Comparison of differences in the results of formal and informal education
  - Major factors and relevant core issues for the reinforcement of workplace learning

- Recognition, evaluation and remuneration of management and labor on workplace learning
- Benchmarking factors of excellent examples

◦ Support necessary for strengthening workplace learning
- Problems and hindrance factors in workplace learning
- Role of management in strengthening the informal learning in the workplace
- Influences of corporate strategies on the skills via workplace learning

◦ Major policy examples
- Results and problems of project use
- Comparison of new paradigm project and learning organization project

◦ Governmental dexterity policies and their developmental policies
- Influences of policies related dexterity
- Directions of policies for strengthening workplace learning

3. Research and Project Methods

◦ Case selection

- First, distinguished workplace learning examples are sought to pursue this study. To this end, ten companies are selected in consideration of business type, scope and representativeness, using interviews with experts, drawn from 200 companies that participated in the learning organization project for SMEs and the companies that participated in the construction of the in-house life-long learning system in the New Paradigm Center.

- Chosen companies (business types): Yuhan_Kimberly (manufacture of paper products), Sosul (manufacture of semiconductor devices), Yonwoo (manufacture of plastic pumps and containers), DSP (manufacture of press forms), Dongmyung Foods (food drawing), Hanacoby (Drawing of plastic containers), Miju (manufacture of automotive parts), Youngjin (manufacture of automotive parts), UIC Chicago (dental clinic and medical service), and Huneed (manufacture and service of communication devices)

◦ Case analysis is composed in three stages:

- First, collecting the basic information of companies from the Human Resources Development Service of Korea and the Polytech and grasping basic profiles, such as business type and scope.
- Second, executing on-the-spot interviews, visiting work fields, and collecting relevant data.
- Third, developing the framework available for inter-case comparison on the basis of case analysis results and presenting it in the form available for the comparison of inter-case characteristics.

4. Framework of Case Analysis

Study results are presented using case analysis and described as follows. There are also examples whose detailed items have their names changed in accordance with case characteristics.

1. Overview

2. Scope and strategic importance of workplace learning in enterprises

3. Relationships between corporate summary and necessity for workplace learning
   3.1. Corporate scope, business type and products/services
   3.2. Relationships with the necessity for workplace learning

4. Specific methods of applying workplace learning to skills and their strategic importance

5. Differences between the technical development by formal learning and the skills by informal workplace learning
   5.1. Technical development by formal learning
   5.2. Skills by workplace learning

6. Core issues to execute and promote workplace learning

7. Recognition of management and labor on workplace learning
   7.1. Recognition of management
   7.2. Recognition of labor

8. Problems and hindrance factors of workplace learning

9. Benchmarking factors of distinguished examples

10. Influences of governmental policies on skills development by workplace learning

11. Role of management for executing informal workplace learning

II. Informal Workplace Learning and Support System in Korea.

1. Introduction

It is worthwhile to review how the process of skill development changed through the history. SMEs play a main role in supporting workers' living by maintaining jobs as they conduct half of the nation's production. It is essential for SMEs to develop workers' skills in order to survive in the expanding global market economy. The way in which SMEs develop the skills is quite different from the larger enterprises because SMEs depend on informal learning within the workplace, rather than formal learning.

It is worthwhile to review how skill development changed through the history in order to understand the nature of skill formation in SMEs. Informal workplace learning has been the path to skill formation throughout most of human history. Apprenticeship has long been an original type of informal workplace learning. Industrialization has an impact on how people develop their skills. The nature of skill formation became formal, as much of the industrial revolution transformed the workplace of the large enterprises, with workers repeating routine jobs for mass production. The skill development system changed to customize the mass production. However, informal workplace learning is still playing a major role in skill formation in SMEs and professional excellence development.

SMEs do not rely on formal education and training as much as the larger enterprises because SMEs have different ways of developing skills. It takes too many resources for SMEs to maintain a formal skill development system that separates learning from the workplace. The workplace learning essential for skill formation could take place when they work together or share their experiences within their workplace.

The government training scheme, which is designed to help SMEs, mainly supports formal training separated from workplace learning and does not fit the nature of SME skill development in Korea. Therefore, we need to inquire as to why the gap widens between the governmental scheme and the SME's needs. It is argued that we should revaluate the role of workplace learning playing in SMEs skill development and determine how to facilitate workplace learning by using different policy measures. Skilled workers know that informal workplace learning has not been recognized as a

valuable process in which shop-floor workers develop their skills by both working and learning. Through informal workplace learning methods, such as on-the-job-training, mentoring and coaching, skilled employees would transfer core skills to novices while working and thinking together within the workplace. This informal workplace learning has been ignored by the government skill development policy in Korea because of the prejudice against informal workplace learning. They say that it is critical to identify learning from working within the work setting; otherwise the government might compensate workers through the skill development fund. The government system focuses on the process control (number of hours) of learning, which is similar to the school system in meriting output rather than improved skills.

This mismatch problem and the scheme oriented school-like system might increase the skill gap between SMEs and medium and large enterprises instead of reducing it. In this regard, it is reasonable to inquire into the real nature of how SMEs genuinely develop workers' skills, and the discrepancy between the nature of skill formation and the government skill development policy, as we expect a better one.

2. Overview of SMEs in Korea

SMEs are composed of more than 99% of all business enterprises in Korea. The percentage of SMEs in Korea is larger than the average percentage in other countries.

<Table II- 1> SMEs by Employee Size in Korea

Employee	**%**
5-9	50.1%
10-19	25.8%
20-49	16.4%
50-99	4.7%
100-299	2.5%
Total	99.4%

MOL, 2005.

Overall, over 88% of jobs came from SMEs (KOSBI, 2006). After the economic crisis in 1997, most jobs emanated from SMEs instead of the larger enterprises. The SMEs' job portion increased from 81.9% in 1999 to 88.1% in 2005. It is expected that most jobs will increase in SMEs (SMBA, 2005). The number of SMEs' jobs increases by

1.5% yearly within 2000-2005, but the overall number of job decreases 0.5% in the same period.

<Table II- 2> SMEs' portion in GDP

Year	1999	2002	2005
Total	479.7	628.3	851.9
SMEs	227.9	319.0	357.3
(%)	(47.5)	(50.8)	(41.9)

*** 1 Bil. Korean Won is proximately1.1Mil. US. Dollar**

The output of SME's production comprises 42% of the total national production, but it is decreasing. The gap, in terms of quality of life and individual income, between the larger and the SMEs is increasing. The increasing gap damages job creation capability of the Korean economy.

This problem is related to decreasing SME's job capability. The increasing gap would mean that SMEs, which are in charge of 88% jobs and almost all job increases, are losing their competitive ability in the global market. The gap between individual income and quality of working life rapidly widens, as well. A reason for the gap is the increasing lack of skills, and the inappropriate, inadequate governmental support scheme for skill development in SMEs.

3. Skill Formation of SMEs in Korea

A. Preferred job skill development methods

SME's skill development is quite different from the larger enterprises' (Ashton and Sung, 2003) because of the latter's powerful business environment; contrasting skill needs; and the nature of SMEs' learning. SMEs prefer informal workplace learning with different styles, rather than formal learning based on the school like system. The results of a research survey provide insight into how SMEs develop skills.

Below <Table 3> addresses the question as to whether formal education and training are necessary.

<Table II-3> Needs of Formal Education and Training

Answer	Employee			
	5-9	10-49	50-99	100-299
Necessary	41	81.8	88.0	90.5

Not Necessary	59	18.2	12.0	9.5

*KOSBI, 2007. Conducted by surveying 2,059 SMEs.

Only 41% of SMEs with 5-9 employees answer that "Formal education and training are necessary" but 90% of SMEs employing over 50 employees answer that "Education and training are necessary". This result might indicate that the process of skill formation is somewhat different between micro and small enterprises and medium or large enterprises. Large enterprises heavily rely on formal education and training, while SMEs do not rely on it as much as. This result does not imply that SMEs' management fails to understand the importance of skill development, or that it does not wish to invest in people, should management choose to develop staff through informal workplace learning.

<Table II-4> Percentages of education and training

Size	% of Enterprises	% of Employees
1-4	1.4%	2.8%
5-9	6.8%	5.4%
10-29	14.5%	4.8%
30-49	29.3%	4.3%
50-69	40.1%	4.9%
70-99	58.1%	8.3%
100-150	62.7%	8.4%
Less than 150	6.0%	4.0%
150-300	91.1%	15.2%
Over 301	100%	30.0%

MOL, 2004.

In terms of the size, it seems true that the smaller enterprises, the less educating. For only 1.4% of Micro and Small Enterprises (MSEs), 2.8 percentages of employees undergo formal education and training and training in Korea. Micro and small enterprise generally comprise organizations that less than 10 employees. This clearly contrasts s with organizations comprising over 301 employees, where 100% of large enterprise have 30% of employees that engage in formal education and training. <Table 4> shows that there is a huge gap between the ratio of enterprise under 150 employees, 6.0% and the ratio of over 150 employees, 91.1%.

<Table II-5> Formal Training by Employee number

Answer	Employee				
	5-9	10-49	50-99	100-299	S-total
Yes, We need, conducting	12.7%	53.5%	70.8%	77.8%	45.3%
Yes we need, but not conducting	46.3%	28.2%	17.3%	12.7%	30.9%
No we do not need, not conducting	41.0%	18.2%	12.0%	9.5%	23.8%

In <Table 5>, 46.3% of micro enterprises (5-9) answer that they need education and training, but they do not provide formal learning opportunities for various reasons. 41% answer they do not conduct education and training because they do not need formal learning opportunities. 12.7% answer that they conduct training. 46.4% of SMEs do not perform formal training. But, over 77% of larger enterprises employing more than 100 offer formal training.

From the above results, SMEs tend to rely less on formal learning for skill development than the larger enterprises. Therefore, they utilize more informal workplace learning for their employees' skill development because the nature of SMEs skills might be different.

<Table II-6> Satisfaction of learning methods (5 point scale)

No. of Employee Method	5-9	10-49	50-99	100-299
Informal Workplace learning	**4.19**	4.07	**4.05**	4.09
Formal Training	**3.17**	3.78	**3.67**	3.69
E-learning	3.25	3.88	3.57	3.37

KOSBI, 2007.

Above <Table II-6> indicates that micro and small enterprises have the highest satisfaction with informal workplace learning. When the size increases, the satisfaction of workplace learning decreases. This partially reveals a micro enterprise's preference on workplace learning.

Larger enterprises experience greater satisfaction with formal education and training than SMEs. When the size decreases, satisfaction with training weakens. E-learning is showing quite similar patterns with formal training.

Table 6 shows how MSEs prefer workplace learning as they develop skills of new employees with less disruption of operation by using less resource. At the same time, informal workplace learning is cost-effective, and suits their working environment.

SMEs need to utilize a skilled workforce which performs over a long period of time. Therefore, the skills formed through workplace learning are more likely to be clear, specific, and not readily transferred to another workplace. This might discourage the tendency of workers to seek other jobs after they undergo training. The “training after leaving” syndrome can be described as such: SMEs' management says that it does not want to develop the employees' general skills. After improving skills, the employees want to leave SMEs for large enterprises in which they can have better rewards. Instead of developing general skills, it is necessary for SMEs to strengthen clear and defined skills, imbedded in the firm culture and distinctive production system, by means of informal workplace learning,

<Table II- 7> Reasons as to why SMEs do not participate in education and training

No. of Employees Reason	5-9	10-49	50-99	100-299
Disrupting operation	48.8	40.4	47.8	20.8
Employee’s ignorance of learning	12.9	14.7	17.4	12.5
No appropriate training programs	7	18.7	17.4	25
Leaving after skill upgrading	11.1	5.8	2.2	4.2
No information on T&D	18.5	15.6	15.2	37.5
etc.	1.7	4.9	0	0

The most critical deterrent to training in SMEs is that training causes disruption of operation. SMEs cannot continue operations when some of the employees participate in formal education or training at different places. Employees’ ignorance of formal education is the same, whether in small or large enterprises. The larger organizations have difficulty in identifying appropriate training institutes or programs. Only 7% of micro enterprises have not identified appropriate formal training institutes or programs. Most MSEs have enough information on education and training. This trend implies that most SMEs know what they need to learn and how to go about it, but they cannot afford to educate their employees.

It is noticeable that 11.1% of micro enterprises worry about employees leaving the workplace. After-training-leaving-for another-job syndrome matters to SMEs. Only 4.2% of enterprises over 100 employees worry about that syndrome. Given the above results, the following lessens can be drawn. Training and education separated from the workplace is not conducted at about half of SMEs, therefore workplace learning is necessary for them in to develop their skills within their environment; also they can keep skilled workers without poaching.

Poaching high skill employees from SMEs by MLEs is a serious deterrent to the participatory training and development program which develops transferable skills to others. In Korea large enterprises hire over 70% of new employees from SMEs because they do not want to pay for the skill development of new employees, but they want to save time for training. A certain food chain of skilled workers has formed. When SMEs improve skills by relying on formal training, the employees who possess transferable skills want to be taken by the large enterprise which can offer better rewards. Some SMEs' managements say that they do not help their employees improve skills, as they want to keep the employee for a long time. In a sense, the larger organizations do not pay for the skills formed at the small enterprise's expense for learning opportunities. When high skilled employees leave SMEs, they bring all of their intellectual assets to the larger one. This is most devastating to the SMEs (KOSBI, 2006). It is necessary to protect SMEs from poaching highly skilled employees, rather than providing governmental subsidies for formal training. The government should pay more attention to the high skill eco-system in which SMEs can invest in skill development, without worrying about poaching, and they should abide by the fair rules which ensure that SMEs and large enterprises cooperate side by side. This issue has to be addressed by a different policy approach which would appreciate informal workplace learning, the most important learning measure of SMEs.

4. Issue of Governmental Scheme of SMEs.

Since 1996, the Korean government has established employment insurance in order to help enterprises develop skills. The employment insurance fund (EI fund) consists of three elements. First, the employment security provides employment retention subsidies. Second, the unemployment package offers job-seeking benefits and employment promotion allowances. Third, the vocational skills development, package allows the Ministry of Labor to provide financial support for training and education programs from the EI fund. The policy has three items: support for employees' training; paid learning leave, with training facility and equipment; and an in house qualification certification program; this program supports workers who want to take individually training courses, a paid learning leave, or a loan for training, and it also supports SMEs with training consortiums between large and SM enterprises and their learning organization program.

<Table II- 8> Support programs from the EI fund

	Pay for expenses	**Loan**

Employers	Training and education by Orgs.	Paid Learning Leaves.	training facilities or equipment	In-house Qualification Certification
Employees	Taking classes at college or vocational training institutes	Preparation for qualification certification	higher education and training	
SMEs	Training Consortium	Learning Organization program		

As the enterprises conduct training and education according to the guidelines of MOL, they may ask the government to pay the training expenses by using EI funds which have been collected from each enterprise.

Most MOL's guidelines reflect formal education and they are training-oriented, as seen Table 8, because formal education and training can be easily measured. MOL monitors the process of training programs in order to enforce policy. The guidelines specify the place where the employees are supposed to take course and their training methods. Only a small portion of T/E have a workplace learning program in which structured OJT can be included.

SMEs in which skill formation significantly rely on informal workplace learning cannot exploit the support programs from the EI fund, even though they fully pay the EI for their employees. It is a structural problem of skill formation and its support system in Korea. There is a discrepancy between how SMEs form skills and how they are supposed to train their employees because of both a poor understanding on the nature of learning in SMEs, and their unquestionable belief in formal training.

<Table II-9>Participation and Budget for Vocational Ability Development Supports

(Reference: Mil. Won, %)

	Sub-Total	**Less than 50**	**50-150**	**150-300**	**300-500**	**500-1000**	**More than 1000**
Enterprise(A)	111,419	74,652	16,419	7,754	3,446	3,690	5,458
Workers(B)	2,350,509	233,136	116,134	177,984	111,141	196,765	1,515,349
Budget	236,495	30,490	12,203	17,333	11,774	18,928	145,767
All Enterprises(C)	1,148,474	1,115,195	21,127	6,019	2,001	1,362	770
All Workers(D)	8,063,797	4,037,038	1,215,624	703,024	387,332	503,378	1,217,401
Participating Enterprise ratio(A/C)	9.7	6.7	77.7	128.8	172.2	270.9	708.8

Participating Worker ratio(B/D)	29.1	5.8	9.6	25.3	28.7	39.1	124.5

MOL, 2005

Only 6.7% of SMEs with less than 50 employees take advantages of the EI fund. This figure seriously contrasts with 708% of large enterprise with more than 1000 employees (708% means that one large enterprise uses the EI fund for education and training more than seven times).

<Table II-10> Paid Learning Leaves

(Reference: Mil. Won)

	Total	**less than 50**	**50-150**	**150-300**	**300-500**	**500-1000**	**over 1000**
Enterprises	415	59	63	58	31	46	158
Workers	5,468	819	95	98	74	181	4,201
Budget	7,887	1,386	117	170	125	293	5,796
% of Enterprises	0.0	0.0	0.3	1.0	1.5	3.4	20.5
% of workers	0.1	0.0	0.0	0.0	0.0	0.0	0.3

MOL, 2005.

Most SMEs do not take advantage of the paid learning leave program. About 20.5% of large enterprises exploit the program. For the SMEs, the paid learning leave program is not feasible.

<Table II-11> Employment Insurance Budget Allocation

	Participants/%	**Budget/%**
On-Job-Training	2,000./ 0.1%	1Bil./0.5%
Learning Organization	30 thousand//1.5%	7Bil./3.5%
Mail communication	238 thousand,/ 10.1%	22Bil./ 9.2%
Internet E-learning	1034 thousand./ 43.9%	50Bil./ 21%

MOL, 2006.

In 2005, 244 billion dollars from the EI fund were used for employees' job skill development and 2,355 thousand employees participated in the various job skill development program funded by the EI.

About 98% of participants and 96% of budget of the EI were allocated to formal education and training, upon review of the budget allocation. Only 1.6% of participants and 4% of budget were allocated to workplace learning. OJT as a workplace learning is limited to only the unemployed who already took more than one month formal training . There is almost no room for workplace informal learning in the supporting system with the EI fund. There is a critical discrepancy between the way in which the employees of SMEs want informal workplace learning, and the supporting system, which recognizes only formal education and training as job skill development.

<Table II- 12>Payment and Allocation Ratio of the Employment Insurance for Training

	Payment / %	**Allocation / %**	**Allocation/ Payment**	**Allocation /Payment Ratio**
Less than 5	20Bil./2.9%	4Bil./1.7%	0.2	0.59
5-9	18Bil./2.6%	5Bil/2.1%	0.28	0.81
10-29	41Bil./5.9%	9Bil/3.7%	0.22	0.64
30-49	19Bil./2.7%	5Bil/2.2%	0.26	0.81
More than 1000	333Bil/47.7%	160Bil/65.8%	0.48	1.38

Furthermore, the budget from the EI might be seen to increase the skills' gaps between the micro and the large enterprises. Table 13 shows that about 20% of the amounts of EI from the SMEs were used to improve the skills of SMEs' employees, but 48% from the large enterprises were used for the large enterprises' employees. The remaining amounts were used for public purpose. 47.7% of the EI fund came from the large enterprises and 65.8% of it was used for the large enterprises. 2.9 % of the EI came the micro, but was used only 1.7%.

MOLs have tried to alleviate the gap. For example, expenses of training and education, including e-learning, can be reimbursed 100%; but in the allocated 80% for the large enterprises, it does not seem to decrease the gap.

The system has been blind to informal workplace learning which plays a pivotal role in improving skills in SMEs. Workplace and workplace learning have not been recognized as learning place and learning activities in the government scheme. This problem is related to the conceptual framework in which learning should occur within formal education or in the training setting (separated classroom, teacher, textbook, lecture and theoretical text and test, etc.). In this context, workplace learning is seen working, not learning.

Shop Floor managers tend not to rely on candidates' qualification certification when they select new employees. The qualification certification system is more theoretical than practical because participants should take formal education and training rather than practical learning through real workplace experience in which they understand work settings and watch how their seniors work.

It is necessary to recognize the importance of workplace learning and understand how workplace leaning takes place, when we try to empower SMEs to improve employees' skills through workplace learning.

The supporting system of job skill development should be changed to serve the workplace informal learning as long as formal education and training. There are some technical issues in how we see workplace learning and measure its results. It is not difficult to see formal education and training because of its process formality. It is needed to focus on the change of skills within learning, rather than formality.

5. Learning Organization Program as an alternative plan

In 2006 MOL introduced the learning organization program for SMEs in order to encourage employees' self-directed learning. This program was conducted to encourage SMEs to be learning organizations in which the workers can work and learn at the same time. The enterprises' participating learning organization program (LOP) can improve skills through various workplace learning and some formal training which they can arrange according to their desired goals. LOP is composed of 10 sub-programs in three categories: a consulting service for building a learning system; constructing a training room; and building a learning team, with mentoring, OJT. In practice and paid learning leaves, the knowledge management system (KMS), celebrates and shares it role after active consultation with management. HRD KOREA is in charge administering LOP. Each enterprise chose what sub-programs they took and from the ten sub-programs the participants could design their learning. Only a learning team was required for all enterprises.

The main sub-program is the learning team in which the participants can make almost all decisions on their learning: what to learn, how to learn, when they learn, where they learn, and how to transfer their learning to their work. HRD Korea, who administrated this program, paid all learning expenses, such as, books, stationary, snacks, some specialist assistants, etc. When they begin LOP, they make a learning contract with HRD Korea. There are some requirements for the learning contract. Both management

and labor union should sign a consent form for cooperation for active participation in LOP. About 130 SMEs applied in 2006 and 112 firms were chosen.

The impact of LOP on the participants and their organizations is positive. The fact that 102 out of 112 enterprises want to continue LOP indicates that LOP was successful. As we reviewed, 4% SMEs conducted training courses as the EI fund fully paid the expenses for training. Furthermore, 300 SMEs want to participate in LOP, but 100 SMEs will be selected for LOP. LOP becomes competitive because it offers not only the valuable support package, but also it fits SMEs' nature and environment. As we reviewed, SMEs know that they need to develop skills and learn more informal ways. It is not useful for SMEs to take advantage of formal training oriented support. They can design their learning by using a combination of technical and financial support while exercising control over their own learning through facilitation services. These are the key success factors of LOP in Korea.

III. Case Analysis of Workplace Learning

1. Yuhan-Kimberly Co., Ltd.

Introduction

Yuhan-Kimberly acted as a role model for high performance work system reinforced by facilitating workplace learning in Korea. It showed the possibility of a remarkable improvement in business performance through an improvement in quality of working life, and the introduction of organizational learning culture, playing a leading role in spreading it.

The case of Yuhan-Kimberly is a representative case empirically showing what results an intensive investment in human resources brings in Korea. The human-oriented HRM (human resource management) system provides high levels of wages and welfare, employment stability, and a comfortable work environment to workers; this system is based on a unique humanistic and high performance-oriented management principle in which the philosophy of Dr. Yu Il-han, a founder of Yuhan Corp., and the management expertise of Kimberly-Clark were combined. It results in workers' job satisfaction and organizational engagement, which in turn creates a positive cycle of improving corporate management performance.

The company has manufacturing factories in Anyang, Gimcheon, and Daejon, the lattest regarded as the leader in education & training. The factory in Daejeon provides 300-350 hours a year for traditional training, exceeding 400 hours of on-the-job training is included, with great investment in human resource development.

Cooperative relations between labor and management were created largely through the change of its working system to a 4-group and 2-shift system in the face of the economic crisis, and a cooperative restructuring between labor and management absorbing superfluous personnel and avoiding labor reduction. The production of surplus time with the operation of a spare group led to a great increase in time for education & training. The new personnel system was introduced with a change in working hours for competence-oriented personnel management, avoiding seniority-based personnel management. As the framework of differential allowance (depending on individuals' competence and contribution based on flexibility) was created, problems

such as chronic personnel accumulation and increasing high-level positions were solved,; workers showed more enthusiasm for learning in hope of raising their status.
Another feature of education & training in Yuhan-Kimberly is the introduction of an in-house instructor system. In-house instructors are trainers well skilled in relevant jobs and with field experience; they are familiar with field works, and earn confidence and respect from workers. Since they have substantial experience as on-the-job superintendents, they can deliver in classes both theoretical and tacit knowledge accumulated over a long time, showing a unique training technique.

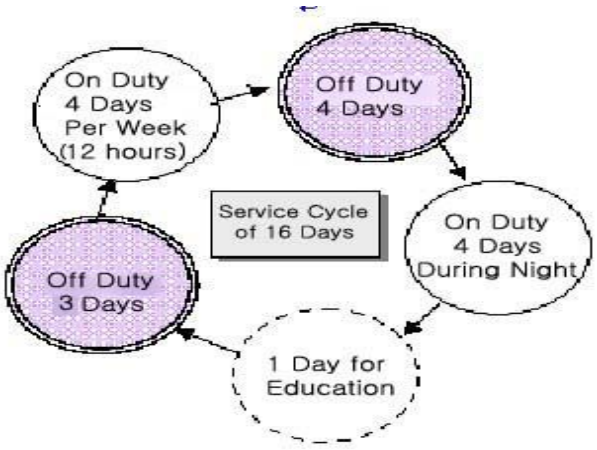
1. Corporate Outline and Necessity for Workplace Learning

A. Corporate Outline

Yuhan-Kimberly, a local pharmaceutical company, merged 50:50 with Kimberly-Clark, the biggest paper products provider from America in the world on March 30, 1970. Yuhan-Kimberly started with its Anyang factory for personal care goods in 1970s; established its Gimcheon factory for non-woven fabrics, materials of household and sanitary goods, in 1980; and added the Daejeon factory for diaper and hygienic band in 1994, with its business areas reaching baby, woman, household, adult, sanitary, business and hospital goods, digital printing, and cosmetics.

B. Organizational Structure and Education & Training

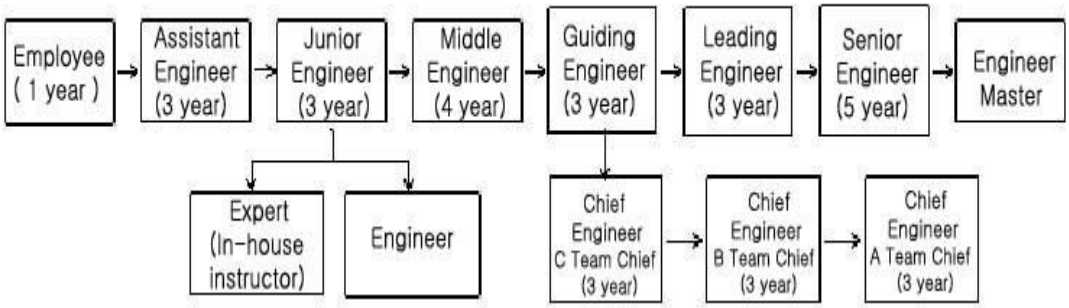
Yuhan-Kimberly has a horizontal organizational structure, providing considerable autonomy to each factory. In particular, since decisions on matters associated with education & training, work organization, and human resource management are mostly committed to factories, they show a big difference between themselves. The company's 4-group 2-shift system provides a lot of surplus hours, acting as an important factor in securing sufficient education & training hours.



<Fig III -1> 4-group 2-shift System in Daejeon Factory

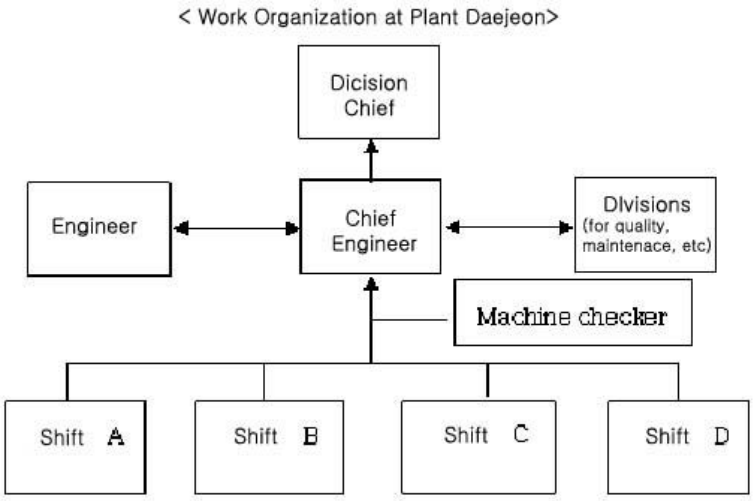
The functional qualification system coupled with a change in working hours provides promotional opportunities, depending on individuals' efforts and competence, with compensation depending on their skill learning and competence improvement, and no limits on the number of people to be promoted by field. The reason for the introduction of this system with a change in the working hours lies in preventing pay reduction, and it considers workers' motivation for the highly intensive education & training in accordance with a change in working hours. Respect for individuals' competence based on fair evaluation, and organizational competitiveness improvement through an improvement in individuals' qualities, enabled a stable operation of the new personnel system.[1] The company could enhance workers' sense of achievement by setting qualification requirements by field and providing promotional opportunities depending on the degree to which the requirements were fulfilled. The company could also provide a flexible style of personnel management by giving workers opportunities for career development depending on their duty rotation and aptitude.

[1] New Personnel System: Since the existing pay system was a traditional seniority order pay system and the existing promotion system was also a traditional position-oriented promotion system, promotion opportunities for production-line workers was limited. The position of foreman is the only and last one that they can expect for promotion. However, as vocational qualification system with a change in the working hour system was introduced, the rigidity of promotion and pay system for production-line workers was weakened, but its features associated with individuals' competence was strengthened. The introduction of a new personnel system motivated production-line workers to learn to develop their competence and
This technique reduced factory workers' deep-rooted consciousness of being unfairly treated, in comparison with office workers, and resulted in their active organizational involvement and high loyalty to the company.



<Fig III -2>Functional Qualification System

The company has a promotion system classified into 8 grades, providing workers opportunities to be promoted to middle engineers from the 3rd grade junior engineers, or to change their job category to experts or engineers. After working as guiding engineers, workers can be promoted to chief engineers or leading engineers.

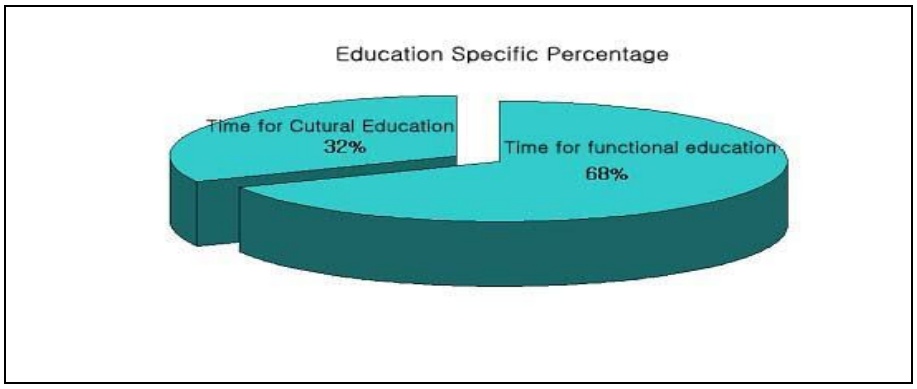


<Fig III -3> Work Organization at Plant Daejeon

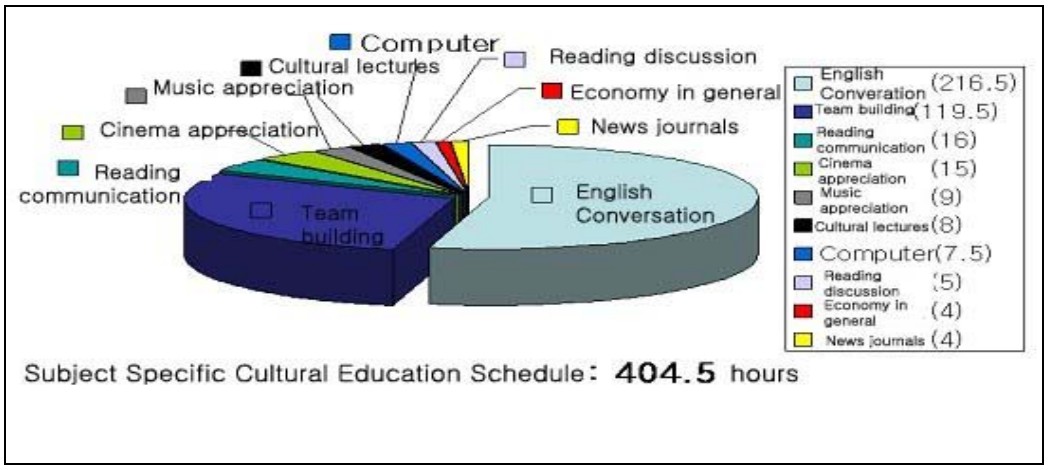
Daejeon factory provides a position for field superintendent (chief engineer), who manages 4 work groups using the same machine but different in shifts from each other. All chief engineers have field experience, and many of those managers, in one superior to their position; have worked as engineers in the past. Under the chief engineer system, each production line has role and responsibility limits by shift, and each group member has decision-making and autonomy rights as a multi-skilled engineer, which causes learning motivation to solve ordinary problems.

Yuhan-Kimberly provides more than 330 hours for education & training in a year to foster knowledge workers through its cafeteria-style training program, including job

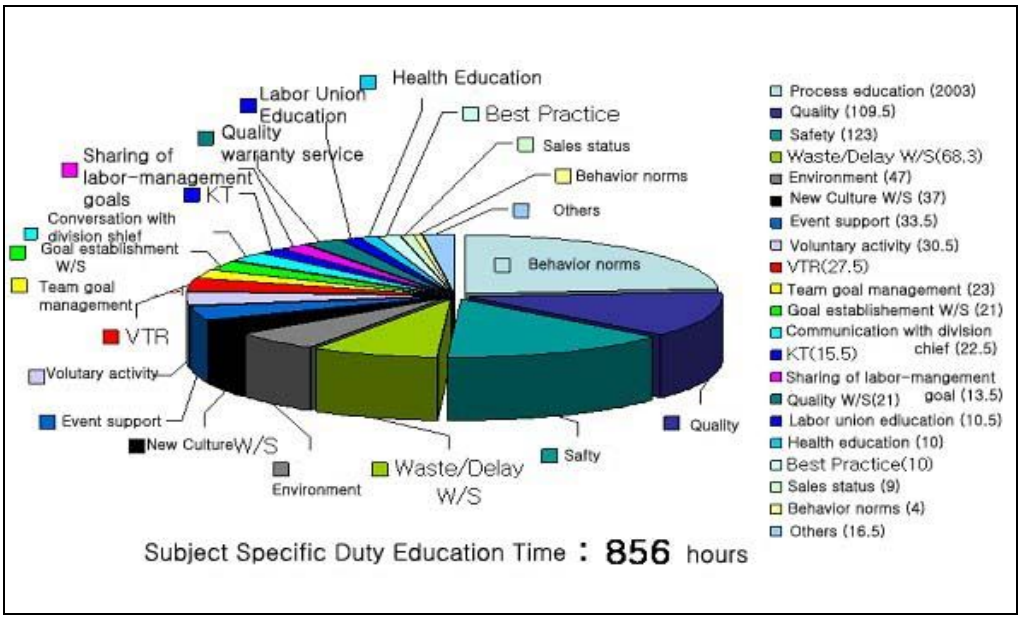
training (70 %) and general training (30 %). Lower-ranking workers were more dedicated to previously organized schemes, while the higher-ranking were more committed to ones necessary at a given time, so education & training could be flexible.



<Fig III -4> Education Specific Percentage



<Fig III -5> Subject Specific Cultural Education Schedule



<Fig III -6> Subject Specific Duty Education Time

C. Relations with Necessity for Workplace Learning

In the manufacturing industry running shifts, it is difficult to have a full understanding of workplace operations only with theoretical or conceptual knowledge. Workplace improvement requires workplace participation and experience, so employees can analyze the causes of problems, and show improvement methods. Regarding those problems repeatedly occurring, if an instruction on analysis and proposal method is given, a senior operator usually fills out the log, and most of learning results are organized by chief engineers. That is, key improvements are largely provided by chief engineers or engineers. Since the forced education & training system has difficulty in producing results without trainees' improved attitudes, motivation can be strengthened by treating trainees more humanely through workplace learning. In addition, since workers are directly taught what is necessary for the workplace, it is easy to apply what workers learned to the workplace. The loss of skills or knowledge, which results from the failure to directly apply what was taught, can be prevented.

For example, if a device business uses the shift system, process engineers manage the optimum operation setting values of every machine, in which the cost of newly setting values of machines takes place; every group should set its own values if there is difference in setting values between groups. To improve this problem, standard operating procedures (SOP) have been prepared. The standardized work procedures are a benchmark for knowledge sharing and form a basis of constant improvement; this promotes a model for developing personal learning into organizational learning by

changing tacit knowledge to formal knowledge. In addition, when malfunctioning machines cannot be operated, the model enables workers to solve their problems themselves, thereby reducing the cost of waiting for the assistance of an outside expert engineer.

2. Scope and Strategic Importance of In-house Workplace Learning

A. Scope of Workplace Learning

New employees receive orientation for one week, and workplace process training including OJT and job process training for 2 or 3 months. If a certain period of time passes after the completion of the course, the company provides phased recall training to all employees, and a differentiated training based on the analysis of individuals' training performance. The education and training program for experienced employees focuses on improvement in their job capabilities through multi-skill training. They receive separate training by level, in consideration of individuals' skill level; specialization training by field, from experts including outside instructors; and problem-solving training, including workshops. The company provides around 30 % of cultural education of the total hours of training, so production-line workers can meet various environments and situations, and be developed into learners with an intellectual way of thinking.

B. Strategic Importance

Workplace learning acts as organizational memory necessary for learning organization, since it enables just-in-time training. In particular, the Daejeon factory provides workshops as a method of education & training. Thus, education & training are in integral part of work, which does not provide educational activities planned in advance, but what is necessary at that time. This also means the level of integration of education & training and work process in that organic combination, with on-the-job superintendents, well-skilled instructors, and on-the-job workers, are required. In addition, it can lead the creation of a new corporate culture by modeling consulting in the workplace through a consulting space for workers, which enables communication between labor and management.

A large proportion of cultural education is designed to broaden workers' thinking and diversify their way of thinking. If only job training is provided, growth can soon face limits, but when it is combined with cultural education, performance can be better improved. Based on an organizational behavior theory, workers desire physical

compensation, such as payment, as well as mental compensation, such as personal growth, workers' job satisfaction and organizational involvement; both types of compensation can be expected through the redesigning of work process and various job training and cultural education programs.

3. Specific Methods Workplace Learning is applied to Skills and its Importance

OJT is largely provided to new employees on the basis of 1:1, and individuals' skill levels are evaluated based on the agreement between trainees, chief engineer, and instructor, and then preserved on file. A chief engineer leads education & training with common engineers acting as assistants. The company provides a mentoring system as a process of organizational socialization, with senior employees helping new employees to smoothly adapt to the company for 6 months; this is different from job training. Since Yuhan-Kimberly's Off-JT is provided in such a way that workshops focus on problems within workplace, or on-the-job senior employees deliver lectures, it produces the same effects as OJT. OJT reproduces individual workers' work practices, while Off-JT enables work standardization by focusing on education & training.

4. Difference between Skills Obtained through Formal Learning and Informal Workplace Learning

A. Workplace Learning (OJT)

Since Daejeon factory operates a chief engineer system and a 2-shift working system (with each production line having the characteristics of autonomous management group) workplace learning is a little different between production lines. A senior operator takes charge of a working process undertaken by a working group; controls members' jobs; participates in the daily meetings led by a chief engineer, and reports the operational status of machines. Thus, it is known that there is little difference in skills between workers' various groups, but a big difference in productivity, depending on the leadership of senior workers. Since workers at Daejeon factory are also considerably multi-skilled, and have received much training for preservation, they can actually solve minor problems themselves, from which additional learning takes place. If a critical defect in any machines is found, it is solved by the help of senior employees or relevant departments

B. Formal Learning (Off-JT)

Workers can learn from instructors, who are the best experts in the company, including engineers with a profound theoretical knowledge of machines through formal learning (Off-JT). However, since those instructors cannot operate machines and do not have field experience, they are seldom appointed as on-the-job superintendents, due to difficulties in personnel management. As a way to develop field workers' capabilities, formal learning is largely selected. Such a basic learning acts as a catalyst to quickly improve adaptation to on-the-job work and skills.

<Table III-1> Training System Table

	Job Specific Training		Individual General Skills Education		
Middle Engineer	T/S, CONTROLLER, MAINTENACE, MACHINE TOOL		PROBLEM SOLVING, BEHAVIOR MANAGER, INNOVATION OF LEADERSHIP, IN-HOUSE INSTRUCTOR DEVELOPMENT		
Junior Engineer	MACHINE ELEMENTS, G/C OJT, WORKPLACE SAFETY, TOOL INSTRUCTION 2, L/I, EQUIPMENT DISASSEMBLY/ ASSEMBLY 2		PARTICIPATIVE LEADERSHIP, CENTER LINE MANAGEMENT		
Assistant Engineer/ New Employee	BASIC PROCESS, TOOL INSTRUCTION 1, BASIC G/C , EQUIPMENT DISASSEMBLY/ ASSEMBLY, QUALITY AWARENESS, SOP		POSITIVE THINKING, INNOVATIVE THINKING OF PRACTICES		
Common	**Manager**	**Operator**	**Management**	**Manager**	**Operator**

	SAFETY, QUALITY, RQP, E&E, SPARE, P.M(Project Management), EXPERT INSTRUCTOR, SAP, R/3, SMART, WCM, CAP	SALES STATUS, VIDEO NEWSLETTER, TEAM MEETING, GOAL MANAGEMENT, T/S, REVIEW, SAFETY W/S, QUALITY W/S, WASTE, DELAY, MTG	7 HABITS, ENGLISH CONVERSATION, FILM WATCHING, MUSIC APPRECIATION, MUSEUM VISITING, NEWS JOURNAL REVIEWING/ WRITING, NEWS LETTER, CREATIVE WORKSHOP, READING WORKSHOP	TEAM BUILDING, VOLUNTEER ACTIVITIES, WELFARE STUDY, COMMUNICATION SKILLS, DIAGNOSIS TEAM PROBLEMS, NO SMOKING, GENERAL ECONOMICS	COMPUTER SKILLS, (Word, Excel), INTERNET UTILITY

The Daejeon training system offers different educational subjects depending on the worker's rank. Training for new employees focuses on basic attitude, value establishment, basic skill learning, and earlier, stable adaptation to work-- The one for assistant engineers focuses on machine operation skills and development of basic trouble fixing capabilities. The one for junior engineers addresses maintenance, improvement of obtained skills, and techniques to lead and vitalize teams. The one for middle engineers emphasizes expert training and leadership development.

Standard operating procedures (SOP) to unify optimum operating values between shifts through workplace learning were prepared, but SOP between shifts are discussed in workshops held by education & training instructors. The inability to meet between shifts resulted in cost reductions, as later shifts followed the completion of jobs in the earlier ones.. Since different problems from different machines continued to take place, each group has its own solution; workshops can be helpful in creating a consensus between groups. Workers discuss what they have experienced in person and exchange their know-how in workshops, which consider trainees as subjects, not objects, greatly improving trainees' attitude to education and training. Education is provided in a relatively free atmosphere with a workshop chairman selecting daily topics at his or her discretion. Senior employees deliver their know-how, or answer junior employees' free questions.

5. Key Issues to Implement and Promote Workplace Learning

A. In-house Instructor System

Yuhan-Kimberly has 5 officers in charge of in-house education & training; one in charge of HRM with university graduate; and the remaining 4 instructors with field experience. Those 4 instructors are senior employees who earn confidence and respect from workers and have served for around 20 years, most with experience as on-the-job superintendents. Their skill in organizing education and training programs has reached a high level, so much so, that workers can make precise models of machines and equipments in the workplace and also use them as educational materials. In-house instructors should have a good knowledge of workplace and be experts in specialized fields, so trainees can accept them as instructors, and hold them in esteem. Instructors do not force trainees to accept what they teach, but only suggest their knowledge, leaving choice to their trainees. Trainees may refuse to accept the instructors at first, but later approach what instructors suggested, experiencing trial and error.

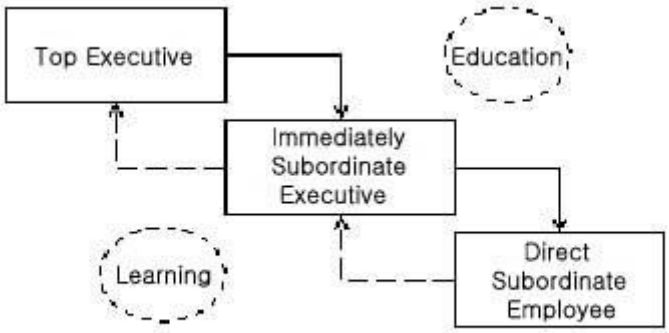
B. Managing Performance and Development (MPD)

The company has adopted a '3-party joint responsibility system, in which managers investigate areas for capability development needed by employees, and actively support their capability development, while employees exchange opinions with managers on their personal interests and goals. It held a seminar while introducing MPD in 1996; provided training and a workshop for professional instructors to vitalize MPD,; and established a system for evaluation of clerical, managerial, sales, and technical employees through internal production of guidebooks. Based on it, the company changed the number of evaluations from one time a year to one time a quarter and used the results of evaluation to decide each worker's piece rate.

C. Evaluation by Job and Function

Yuhan-Kimberly abolished the existing ranking system to establish a job-oriented promotion system through a new personnel system, and separated promotion, pay, and positions so workers could learn voluntarily to have qualification and competence requirements. It also introduced a vocational qualification system as a promotion and allowance system for production-line workers: workers are paid different allowances depending on their skill levels, while changing their working hours; this change prevented pay reduction; motivated workers,; and provided highly intensive training .

D. Cascading Training



<Fig III-7> Cascading training

Cascading training is a training method in which the highest executive learns first, and he teaches what he learned to the next highest executive, who teaches what he learned to his immediate subordinates. This approach is based on the fact that people can best

learn by teaching. In-house experts are trained to be the best instructors playing the role that they learn and teach, and teach and learn.

6. Recognition of Employer and Employees on Workplace Learning

A. Employer's Recognition

Ever since, workers' skills, necessary for job, participation and autonomy expansion, can be connected directly to corporate performance; management can have motives for investment in human resource development. Yuhan-Kimberly's tangible results of education & training had not been found until 1997, but as workers had opportunities for recharge and learning with the introduction of a 4-group and 2-shift system, their desire for work and their willingness to solve problems increased they studies machines and tried new methods. Since then, their stiff way of thinking has become flexible, their company, loyal; participatory consciousness and master consciousness have increased. In addition, the management has grown to value its in-house personnel, as expertise and business capacity of workers optimized within the company.

Education & training is implemented in such a way that an on-the-job superintendent decides at his discretion who needs training and requests his or training from the personnel development department. At this time, the education & training department calls all members of the working group, including a relevant member to training, allowing him to protect his self-respect with careful consideration. As it was proved that workers' satisfaction with such training is high, and personnel training are very important for corporate growth, training hours have increased gradually to 330 hours; ultimately a human-oriented management policy is fostered to encourage lifelong education.

B. Employees' Recognition

There is an organizational culture that considers education as one of ordinary activities in Yuhan-Kimberly's Daejeon factory; trainees are not selected among group or organization members, but all members of the relevant group are called to training. In addition, since training programs are closely related to job and other activities, workers' attitude to training shows a drastic contrast to that of workers from other firms. Workers can understand the flow of the whole plant through constant training, and they feel that they can have the capabilities necessary for promotion, since they are trained to be multi-skilled and can perform complex tasks. Their participation is greater in higher levels of decision-making, compared with a traditional working system. Autonomy,

expansion and job integration have become the basis of their motivation for education and training, and the demands of daily problem solving have naturally caused the motivation to learn.

7. Problems and Obstacles of Practical Workplace Learning

A. Difficulties in Workers' Adaptation to Working Hour Change

When the company proposed a 4-group and 3-shift system as an alternative to the existing 3-group and 3-shift system (securing hours for learning and early recharge), the labor union was strongly opposed because of the reduction in real pay. Concerns grew among workers who thought that their pay would be significantly reduced due to the removal of an overtime allowance equivalent to 40 % of pay, compared with that of other firms operating a 3-group and 3-shift system. However, there was no significant gap in pay since overtime work, which is proportional to the operating rate of machinery, naturally took place in a 4-group and 3-shift system with the plant in full operation for 365 days. As time went on, favor towards the current 4-group and 2-shift system started to increase, with pay somewhat reduced out with time for rest and recharge.

B. Evaluation of Demand for Education & Training[2]

Workers' demand for education & training was investigated, but the extent to which the results affected the decision of program content was not decided. It seems that, since their demand for education & training was not concrete, and evaluation of education & training was neither specific, they failed to attain self motivated learners despite extensive education and training.

C. Sensible Effects of Education & Training

Effects of investment in education and training gradually decrease with workers' skill maturity from the initial vertical up curve. In addition, if workers' motivation for learning weakens as the organization ages, the situation can worsen. To overcome this obstacle, the company in its rapid growth needs to either increase organizational capacity by continuing to invite young talents, or develop a new education and training method.

[2] This is a process to grasp the education & training components desired by workers by means of demand examination and to apply them to the decision of education & training content.

D. Expertise of In-house Instructors

Since in-house instructors did not take a formal educational course, they still need to complement their teaching techniques.

8. Benchmarking Factors of Best Cases

A. Employee Assistance Program (EAP)

The company measured stress levels of employees through regular group interviews or survey questionnaires that aimed to develop a program for effective control; they sought to remove anti-learning, anti-growth attitudes and provide autogenic training so they could control stress themselves.

B. Performance Coaching

This process is designed to produce a mutual consensus on problems and improvement measures by constantly providing feedback on business handling and performance. The company supports performance improvement and achievement of goals for employees by strengthening goal-oriented behaviors.

C. Supporting Competence Development

This is a process of supporting activities to learn and improve specific knowledge and capabilities required for employees' current and future jobs. Employees are informed in advance of those capabilities to be developed through the competence development support programs, induce positive attitude and participation.

D. Regards for Female Workers

Yuhan-Kimberly encourages men and women to share responsibility for childbirth, nursing, and children’s education; it provides congratulatory money and gifts when workers deliver a baby and it meets legal standards of the maternity protection system. The company provides half pay for childcare leave; health examination for female employees (female diseases such as breast cancer and uterine cancer); medical expenses for delivery; and a 2-day leave for spouse's delivery. It also provides remodeled or installed maternity protection spaces for female employees, and a resting and breast feeding space for female employees in pregnancy. Such a women-friendly management developed into family-friendly management with efforts to secure individual, family, and corporate competitiveness.

9. Factors Affecting Workplace Learning

A. 4-group 2-shift System

Knowing that the ratio of raw and subsidiary material cost in production is much higher than that of labor, the company decided that it would be more effective to reduce waste in raw and subsidiary material by reducing lead time and waste, even with labor cost a little increased. Thus, it needed to integrate relevant sections and train drivers and engineers to independently perform business under their own responsibility. It decided that it would make a positive effect on productivity to upgrade individual workers' capabilities through learning. Yuhan-Kimberly's working system is very high in efficiency, but its one spare group and many education and training hours are the most conspicuous difference from the Japanese-style lean production system, which seeks minimum personnel. As a spare group was operated, workers had more leisure time and recovered their biorhythm; their learning volume increased greatly, which was reflected in the improvement of productivity.

B. Volume and Quality of Education & Training Hours

For Daejeon factory with a 4-group and 3-shift system, 120 hours of 360 training hours in total a year per person are included in regular working hours, and the remaining 240 hours are training hours corresponding to overtime work. This is limited to Off-JT, and, if OJT hours are included; education & training hours exceed 500 hours. The quality of education and training hours is also high with education and training subjects systematically organized depending on workers' skill, with job training and cultural education properly combined. In particular, since education & training subjects are closely and systematically related to workers' business, they can be easily applied to on-the-job works.

C. Roles of Education & Training Instructors

Since in-house instructors are made up of people familiar with on-the-job work, having field experience, and held in respect by their fellow workers, the level of educational subjects and business integration can be raised by the education & training department. The company systematically investigates the need for education and training by collecting the opinions of on-the-job superintendents and workers.

D. Human-oriented Management Policy

The company's active support for education and training for the operation of various programs, and in providing a separate employee training center, increased the possibility of long-term change in workers and their belief in the effects of education & training. Granting a considerable level of rights and responsibilities to on-the-job superintendents and workers enabled them to be immersed in their jobs; it also instilled pride with learning motivation.

E. Program for Sustained Labor and Management Cooperation

Yuhan-Kimberly's philosophy of 'human respect' aims at recognizing the labor union as a partner of management, clearly disclosing management status to employees, and developing and applying various cooperation programs. In particular, as the company guarantees employment security by operating one spare group without any reduction in surplus personnel, it has overcome plant operation difficulties even during the IMF crisis with help from the labor union, who committed to pay without bargaining.

10. Management's Role in Implementing Formal Workplace Learning

A. Top Management's Will Based on Human-oriented Management Principle

The management has its unique humanistic and high-performance philosophy in which the philosophy of the late Yu Il-han, founder of Yuhan Corp., and management expertise of Kimberly-Clark, are combined. Since the advantages of education & training are revealed over a long period of time, it is difficult to expect short-term effects. Once the benefits of education & training start to arise, they tend to last long. Thus, the possibility of long-term change of workers, and the management's firm commitment to education & training are needed.. A corporate climate of r respectful workers is also important. Management policies, such as human respect, customer satisfaction, social contribution, value creation, and innovation leadership, were reflected in organizational activities, providing high-level allowances, welfare, stable employment, and a comfortable work environment; these values, resulted in high job satisfaction and the active organizational involvement of workers. They aroused the desire to learn.

B. Labor and Management Cooperation Based on Mutual Confidence

The company suffered the difficulties of stopping part of the production line for more than 6 months, due to a drastic decrease of demand during the 1998 economic crisis. As the plant operation ratio was reduced by less than 50 %, and the stock in the warehouse

increased, the atmosphere of restructuring was intensified. In this situation, the then president Mun Guk-hyeon proposed job sharing through a 4-group working system, instead of layoffs when the surplus labor rate exceeded 40 %. As employment insecurity expanded and the possibility of layoff increased, workers accepted the 4-group working system, and the company provided them with sufficient rest and opportunities to learn new technologies, in spite of its difficult circumstances; this outcome led to improved productivity and management performance, more than expected.

2. Dongmyung Foods Company

Introduction

Founded in 1974 in Jinju as a joint stock company under the name of Dongmyung Noodles, Dongmyung Foods is a manufacturer of noodles, ramen, and other similar products, which delivers a whole quantity of noodles, kalguksu, udon, etc. to Ohttugi Foods on an OEM basis. Its core vision is to maximize productivity and maintain ongoing relationships with Ohttugi, a sole customer of Dongmyung's products, through strict quality management. Its vision embraces the excellence of workers in using raw materials and operating mechanical equipment necessary for the production of fine quality products. Dongmyung at the same time has been able to achieve quality management by fostering the growth of employees through education.

Dongmyung Foods suffered many difficulties due to its skilled workers' retirement and equipment stabilization problems after relocating its production site for a greater leap forward. However, after a tour of Yuhan-Kimberly factories, its executive vice president Park Cheol Jin made a decision to receive consulting from the New Paradigm Center, changing the existing ‘2 group and 2 shift system’ to ‘3 group and 2 shift system’ and creating a concrete and systematic education and training program framework. In addition, in the process of shortening their working hours, employees' fears of the possible wage reductions were alleviated, as the company kept its promise that no wage reductions would be made even in the face of imminent cost increases, thereby furthering the trust between labor and management.

As the problem solving abilities and skills of workers were improved through job training, the company switched to the ‘4 group and 2 shift system’ in work policy, making it possible to offer them more quality leisure time for self-improvement and assure them of the long term improvement of their work abilities. The consistent philosophy of the management showed its effect in the process of solving problems, which enabled the company to attempt new things, while its intention had a positive impression on employees.

Dongmyung still has a few matters to improve upon, such as the increase in the ratio of regular staff; the reinforcement of educational operation abilities; the expansion of educational scope; and the concretization of the compensation system. However, by learning from the success in certain innovations of labor policies and education systems, executives and employees are more likely to expect greater results in the company as a whole, based on the conviction of more profound innovative possibilities.

1. Corporate Overview and its Relationships with the Necessity of Workplace Learning

A. Corporate Overview and Organizational Structure

Dongmyung Foods Co. was founded 30 years ago in March of 1974 as a limited partnership in Jin-Ju city under the name of Dongmyung Noodles Co. After years of selling noodles, ramen and other similar products with its brands such as Dongmyung Noodles and Dongmyung Tteokbokgi, the company approved a proposal of Ottugi Foods Co, concluding an OEM agreement in 1989. As of 2006, Dongmyung boasts a capital of 700 million won; sales amount of approximately 13 billion won; and more than 60 employees.

In 2004, Dongmyung relocated to a new factory in Sancheong from its Jinju factory in expectation of the increase in productivity and sales. However, there were problems, such as employees' attrition, due to commuting problems, and securing manpower and equipment stabilization needs, because of the rural environment. The biggest problem was the employee's lack of ability to cope. It was then that executive vice president Cheoljin Park, who is responsible for the overall management of the company, thought that, for a future-oriented development of the company, it would be better to lead employees to relieve stress and lethargy and create an educated workforce.

B. Relationships with the Necessity of Workplace Learning

Dongmyung's formula of creating consistent quality noodles has been the result of extensive knowledge of flour, a main ingredient of noodles; production costs-analysis; and the skills of every worker involved in the production process. This formula is a direct result of Chief Executive Officer, Jae Dong Park's philosophy of people-centered management.

Additional efforts for greater quality of products were made with line expansions, state-of-the-art automation equipment, bold investments for equipments, and factory relocation. There was a need to train employees to acquire the ability to solve problems and troubleshoot minor machinery errors on site during this process. Practical workplace learning made that possible.

2. Range of In-house Workplace Learning and its Strategic Importance

A. Range of Workplace Learning

All members of each department have to be able to understand all processes, so teams are circulated into production lines temporarily to learn about the noodle production processes under the team lead's supervision. In addition, all members must attain the appropriate knowledge to troubleshoot the machinery that they handle during the automation of machineries.

B. Strategic Importance

The proactive Dongmyung Foods that the management has envisioned is a company with employees that are motivated to analyze problems as they arise, and attempt to resolve matters without waiting for management's directions. If any employees are incapable of this, it is because they are not trained to do so. This kind of proactive minor equipment error troubleshooting is not only needed during factory relocations and emergencies, but also during normal operation times, as well.

3. Specific Methods to Apply Workplace Learning to the Acquisition of Skills and their Importance

The Noodle producing team is a core unit that is responsible for making sure the two production lines are running smoothly 24 hours a day and for troubleshooting problems quickly as they arise. If a production line is halted for an extended period of time, the hardening of the dough will stop the whole line, and it will take an hour and a half to restart again. A simple minor problem with one of the machinery parts can halt the entire line for long periods, so it is imperative that the noodle producing team fully understands the principles and characteristics of the machines. During the process of stabilization, the repeated troubleshooting done by the employees created a natural environment of workplace learning and learning about the equipment and the production process. The training received during this time proved to be not only necessary, but vital in times of change and hardship for both company and employees.

The company also fixed its focus on training all its employees, exclusive of team chiefs, to be in-house future instructors. To achieve this goal, employees must be diligent in self-learned development.

Because human emotion or relationship problems among employees may create demands for the reconfiguration of teams, the need to instill the spirit of cooperation and consideration for others in the workplace is vital. Accordingly, once a week, during hygiene time the education team and the relevant team clean together for six hours and naturally improve cooperation and discuss issues related to each other and

work, creating an opportunity to work out differences. In addition, future employees will have an opportunity to tour the Yuhan-Kimberly factories as a basic skills training course.

4. Differences between the Skills by Formal and Informal Workplace Learning Activities

A. On-the-job Training (OJT)

Previously, when replacing mechanical parts, it took about a day to receive external after sales service. At that time, education existed only as a concept, and most employees did not have the skill or knowledge to fix the machinery themselves. Workplace learning has given the employees the self-reliant ability to quickly resolve matters, such as machinery problems.

Allocated training time is 16 hours per 1 cycle (24 days), which total up to 243 hours annually. Previous training was only restricted to elementary topics such as basic electricity, control, and crushing equipment given by Technical Director Tae No, Woo. The current training system is more structured and utilizes both the Technical Director and a team leader participating as an instructor for on-site job training. Based on field experiences, employees improved their abilities to suggest new technology or items. Now, the new "proposal policy" program is encouraging the employees to focus on building an atmosphere of interest and participation. Chime bells and induced slowdowns signs were installed at the suggestion of employees through this policy.

B. Formal Learning (Off-JT)

The new training system adopted by Dongmyung Foods Co. consists of short, mid, and long term training elements.

<Table III-2> Short, Mid and Long Term Training

	Short (1 yr)	Mid (2~4 yrs.)	Long (5 yrs. or more)
Law Training	Safety, Hygiene, Sexual Harassment Prevention		
Job Training	Basic Machinery training	Intermediate machinery and equipment training	Advanced machinery and equipment training
Basic Skills Training	Speech, documentation skills, self-improvement, etc.	Leadership skills, Movie watching, Sports, etc.	Volunteer work, Book reading speeches, etc.

The initial training has mainly focused on the skilled tasks that aim to raise performance and improve quality control. Then areas that would attract the interest of employees, such as communication and self-improvement skills, were added. This was because the ability to communicate during training times was greatly hindered. So the focus was fixed towards communication, task schedule reports, and cooperative working skills. The factory began to stabilize as the 4 group - 3 shifts policy came into effect, but this was not a result of having skilled workforce, but of having basic training in managing the equipment. So in the 2nd phase of training, technical skills and basic skills training were given at intermediate levels. (This also had a beneficial effect of having the team leads that instructed with the Technical Director push themselves to achieve the ultimate goal of cultivating instructors in the company.)

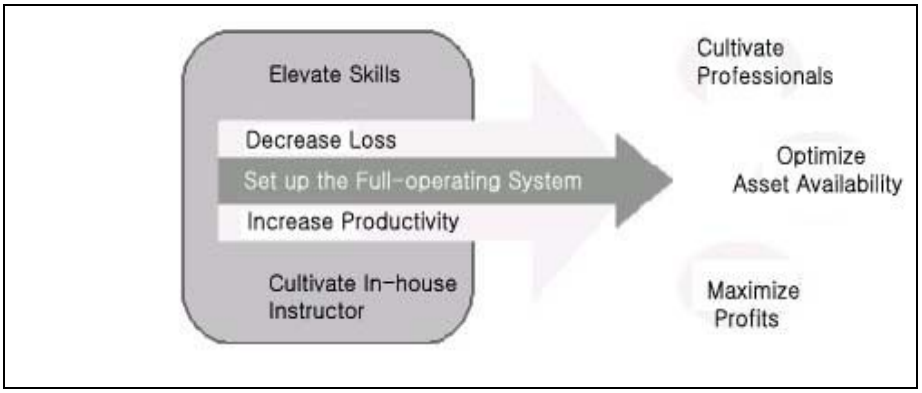
5. Core Issues of Executing and Promoting Workplace Learning

A. New Paradigm Center's Consulting

After a tour of Yuhan-Kimberly factories, where the win-win management model has been exemplary, we learned that their driving force behind success was the power of job training. The decision was made to adopt a new paradigm. The New Paradigm Center's two consultants and General Manager Cheol Jin Park worked through 4 months of analysis and systematic innovations. Then they executed the 'Pil Bong New Paradigm Project', to innovate management practices. This new project aimed for cultivating a skilled workforce in 3 group and 2 shift policy and Short, Mid, Long term training methods. By selecting the 3 group - 2 shifts policy, we were able to adopt new avenues of employment with the effect of a making a lifelong training system possible.

B. Introduction of 4 Groups and 3 Shift Policy

Dongmyung production site is divided into the noodle producing team and the packaging team. Since the packaging team cannot divide into teamed shifts, it adopted 3 group 2 shifts policy on the noodle producing team which used to run by a 14 people 2 groups - 2 shifts policy. Under the groups, 7 people had to work 12 hours a day and 6 days a week, so it hired 7 new employees to make 3 groups for the 3 groups - 2 shifts policy which allowed for work hour reduction from 72 hours a week to 56. It provided 2 days of longer for resting and increased training by 389 hours total on an annual basis.



<Fig III-8> Skills Development Strategy

The number of work days reduced, but the 12 hours shifts did not improve the stress level or the rhythm of the employees. The burden of education and fatigue created equipment trouble due to concentration problems for employees working the night shift. Added to this was the reduction of need for certain workers due to equipment supplies. However, efforts were made to maintain the working force while reducing the working hours to fit the company's needs.

First, through employee surveys and feedback, the company adopted the 4 group - 3 shift policy once again. As the group members decreased from 7 per group to 5~6, per day working hours became 8 hours, making it 42 hours per week. It was a 14 hour reduction from the 3 group - 2 shift working hours.

hour / team	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A								T								T								
B														T								T		
C																								
D		T								T														

	Morning		Day Time		Night Time	T	Training		Off Duty

<Fig III-9> 4 Groups 3 Shifts Policy

C. Equipment Expansion and Factory Relocation

Dongmyung Foods has made bold investments to automate its noodle production and packaging lines which also required the relocation of the factory. However, it lost most

of the employees who had operated its systems because they have difficulties in commuting; and it faced lack of experienced operating employees. In the last result the automation system could not be operated. Because effective production was not possible during automation, there was a need for troubleshooting, which required knowledge and experience of the machines. This created a need to for skilled workers, and education became vital.

6. Recognition of Management and Labor on Workplace Learning

A. Recognition of Management

Based on trust and successful investment in the employees, Dongmyung Foods was able to promote employee relations and educational opportunities and to strengthen their employees' faith in the value of human resource management. Employers and employees having mutual respect for each other also possess greater confidence and conviction for management. Training for the employees created confidence and pride in the products they made, as it served to improve communication amongst employees.

B. Recognition of Labor

Most training is needed for operations, but it also gives the employees the feeling of confidence and the ability to exert maximum potential. Initial training may be dull, but once on-site and having utilized learned skills, it created a sense of pride and competence. This in turn created a conviction that the employees are learning skills that will last, as it bettered their livelihoods.

7. Problems and Hindrance Factors of Workplace Learning Execution

A. Employment Increase of Contract Workers

In securing new manpower, most employees were foreign industrial trainees or military service men. These people were not valuable to the company in the long term and their ability to learn was hindered. So finding long term employees would be vital in adapting to the management policies and its future.

B. Operation of Training Hours

It may have acquired the manpower to manage the training, but Dongmyung Foods could not manage large amounts of training time. The training should also have included long term development directions for the company, but there has not enough

been sufficient interest. There needs to be training system that will become the driving force behind company's growth and success through trained employees.

C. Education System Limited to Noodle Producing Team

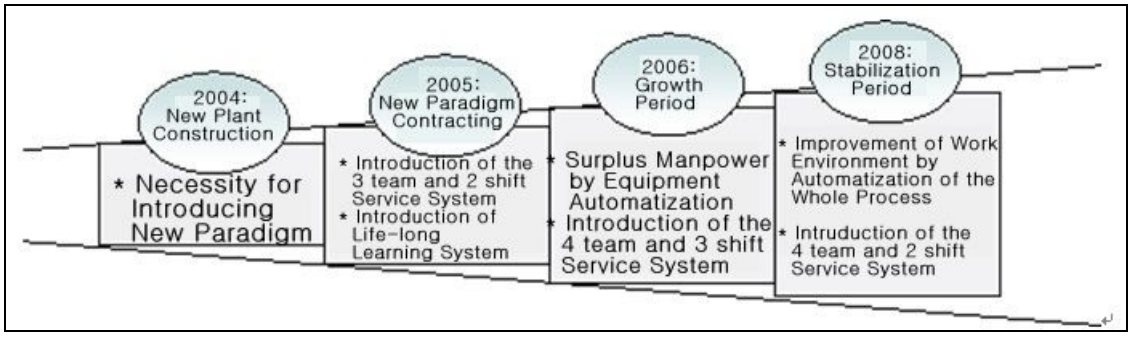
While training for the packaging team can be separately managed for the time being, the training currently limited to only the noodle producing team must become company-wide within the new paradigm system. Widening the targets of training will become difficult and burdensome to manage.

D. Evaluation and Compensation

There is a lack of interest in evaluating employees individually or as a group. This may be a common problem amongst smaller companies. The only systems that exist now are those that support changes in the policy to prevent falling wage levels; pay over the average of other companies in the region; or provide sharing of wage increases. If economical compensation is an important matter to employees, it must be connected with employee or team-based achievements, and it requires attention and change.

8. Benchmarking Elements of Excellent Examples

A. Improvement of the Workday Shift



<Fig III-10> Improvement of the workday shift

Under the 2 group - 2 shift policy, the employees could not be expected to effectively learn from the training. However, the 3 group - 2 shift policy offers longer resting periods to decrease fatigue and stress, while the groups could be alternated between work and training. The current 4 group - 2 shift policy has made it possible for 8 hour workdays with only 5 people on a group. We forecast that in the future, when all expansions and automation are complete, 12 hour workdays can be easily done without

any problems. This can create a possibility for a 4 group 2 shift policy with more days off.

B. Management's learning and strengthening capacity

Dongmyung has improved on the new paradigm system and introduced a 4 group - 3 shift policy. This kind of re-innovating was done without any outside help because of the management's realization that employees' input in problem resolution was critical to the training. Management showed first that resolving matters pro-actively without help is vital. And the switch-back to 12 hour workdays from the 8 hours was through the careful analysis that showed that it is not the hours that created the fatigue problems.

C. Efforts for quality management

Quality management is under the responsibility of two quality control supervisors, who extract samples from produced noodles and measure quality from its production date. The quality is measured in many different standards, properties, dust particle inspection, sensory test, etc., in all noodle production, drying and packaging. Since minor parts' problems can halt the entire line for long periods of time, the machinery temperature and humidity is monitored through CCTV every 10 minutes. To perform this process, job training includes system and machinery training.

In addition, an independent space has been created exclusively for quality management with the goal of focusing more on the quality management; physically, the quality management division was located along with the production line in the workplace, which led to friendship among employees, thereby making it impossible to point out problems properly.

9. Factors Affecting Workplace Learning

A. Quality Maintenance Requirements of Ohttugi Foods Co.

When concluding an agreement with Ohttugi for OEM delivery, Dongmyung had the worst facilities, financial security, etc. of Ottugie's partnering companies. In addition, since Dongmyung had difficulties meeting orders when the annual production was only 2000 tons, the contract with Ohttugi created a situation where employees resided at the factory, making strict selection from products to meet the quality criteria. Since Ohttugi is a sole client for Dongmyung, it was imperative that there were no quality problems, especially since the products cannot be resold. The losses would be great if there were claims, and so the company has set its goals on zero claims average by 2010.

B. Management Philosophy

All executives, during a shift in the paradigm, worry and focus on the employee's benefits. Focusing more on giving ample rest and lifelong learning opportunities, was more benefitial than considering just salaries or financial support. The passion for training can quickly subside when fatigued, so providing plenty of resting time was recognized to be a vital part of producing higher quality products.

10. Role of the Management for the Execution of Formal Workplace Learning

The manager of Dongmyung is concentrating his efforts on having employees feel passionate about satisfaction of self-development and the desire to create higher quality products. He also has said that he is willing to make sacrifices to motivate employees to become more pro-active at work. This is because he feels that the company must first make all efforts to create better working conditions so that the employees can become skilled and pro-active through training.

In order to secure and nurture talented employees, it is necessary to invest in and foster human resources. The management of Dongmyung believes that if the company and its employees are in a relationship to exchange each other's needs, the company must first deliver and earn the trust of its employees before trusting the employees to faithfully perform. It is through this kind of deep and consistent people-based value, that this company is executing the goals for improving human resources and expanding its training.

3. Chicago Dental Hospital

Introduction

Unlike the common types of business strengthening standard job performance, the business of hospital services is difficult to standardize. However, Chicago Dental Hospital keenly needed the introduction of the custom management model fit for a dental hospital through constant change and complement in a severe competition environment. To this end, a steady development was required through the education and training of members.

In the process of improving its system, the working system experienced the greatest change with its reorganization. The hospital changed its working system into a system of 3 teams and 2 shifts to reduce excessive working hours and provide a 365-day clinic. Even though the three team system means more than 30 % increase in personnel and labor cost in terms of management, the management of UIC Chicago Dental Hospital decided that sales and profits would increase by more than the amount equivalent to the increased labor cost due to the improvement of employees' capabilities and skills through education and training. Such a change in the working system was achieved with the help of New Paradigm Center, a consulting firm.

Even before this, such training had been provided with the director's strong will, but it had no consistency and direction since it was operated in a short-term way without a long-term plan. However, the introduction of a life-long learning system made it possible to provide a level of advanced learning by classifying learning content into one for clinical process and one for management for efficient education and training. The hospital also introduced a personnel management system congruent with job skill improvement and career development to complement the insufficiency of career management to support employees' skill and career development.

Chicago Dental Hospital's life-long learning system does not have OJT. Most of the learning processes are made up of invited lectures, reading discussion, and assignment performance. It seems that this was caused by no emphasis on OJT in New Paradigm Center's consulting, and difficulties in OJT of hospital services.

1. **Relationships between Corporate Summary and Necessity for Workplace Learning**

A. Corporate Introduction and Organizational Structure

UIC Chicago Dental Hospital has a unique system in the nation in various services, including the introduction of a year around (365 days) clinical system with 22 employees; one-stop service in which all clinics and treatments are available for one visit; and a dedicated dentist and hygienist system for customers. The hospital's programs such as minister's self-leadership lectures every Wednesday morning; monthly book reading; and book reports reflected increased customer satisfaction and sales, but caused accumulated fatigue in both doctors and employees. Additional classes in the early morning were a burden to employees overloaded with a weekly 60-hour work. Tired workers pressed for time failed to effectively participate in educational training, and it was difficult to accept hospital work as their own since it was not easy to produce good performance for provided education.

B. Relationships with the Necessity for Workplace Learning

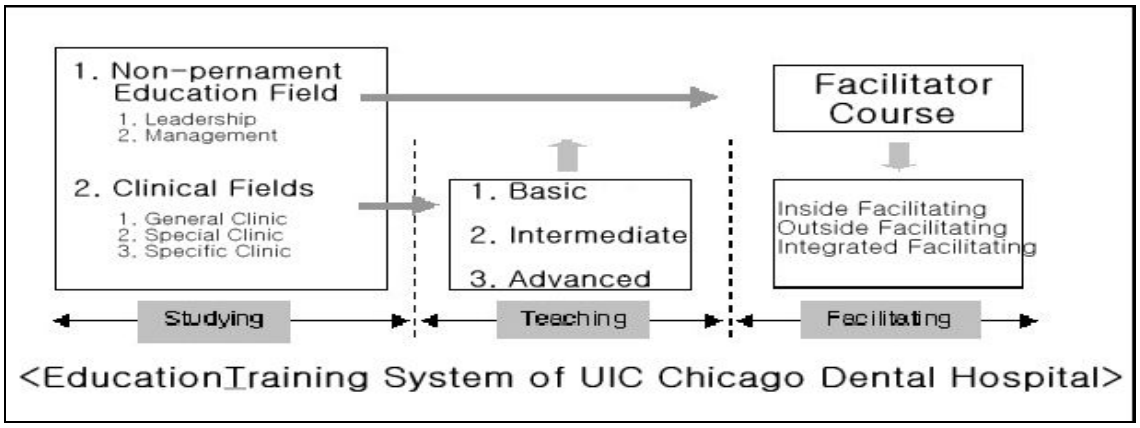
A study showed that if the number of firms in a single business reaches 20,000 in Korea, closed ones become equal to opening ones in number, given the current number of 16,000 local dental hospitals. In such a situation that local medical market is opened and enlargement of hospitals is a trend The director stressed employees' learning, thinking that the hospital cannot survive the severe competition if it does not continue to improve its capabilities with a customer service mind. As the diversity of customer needs increases, employees' skills and their service mind for customers should be constantly improved to provide the best services.

However, contrary to the director's passion, training was provided two times in a week from 6 a.m. to 8 a.m., and it was very inefficient. Since educational content and systems were prepared when there were no long-term plan and visions, consistent educational direction and visions were not established, and instructors were supplemented in a short-term manner, causing confusion in the educational program. In the mean time, since evaluation instruments for educational content were not properly prepared, feedback on educational performance was insufficient, failing to improve the hospital's competitiveness and employees' business capabilities. Thus, the reorganization of its working system, which would reduce employees' fatigue, and the establishment of a workplace learning system furnished with systematic educational content were keenly needed.

2. Scope and Strategic Importance of In-house Workplace Learning

A. Scope of Workplace Learning

Before a new paradigm model was introduced, UIC Chicago Dental Hospital had provided training classes between 6 a.m. and 8 a.m. on Monday and Thursday.
However, since they had to arrive by 5:30 a.m. to attend classes from 6 a.m. and prepare for services, fatigue accumulated, and it was difficult for staff to concentrate on classes, .



<Fig III-11> Education training system of UIC Chicago Dental Hospital

To increase the efficiency of educational training and provide a more specific educational program , the training process was classified into clinical and management courses, and learning frameworks were constructed for employees to obtain learning by level or advanced learning for each course. For example, the clinical course was classified into general, professional, and special treatment of educational matter, which was in turn classified into basic, intermediate, and advanced levels by field, depending on difficulties. The non-clinical training process was composed of Leadership and Management classes, a Facilitator class, and in the third step, a Facilitation application class in which students learn, by playing the role of facilitators.

B. Strategic Importance

The existing training program failed to provide education tied to visions and business strategy since it had no consistency and direction, and it was operated in a short-term way without a long-term plan. The management needed to adjust the class time and date, and the improvement and intensification of clinical training, while employees were aware that only intensified service training could bring a constant growth and survival to the hospital.

3. Specific Methods and Significances to Apply Workplace Learning to Skills

As a new paradigm model was introduced, weekly working hours for employees were reduced from the previous 60 hours to 42 hours, which provided 3 to 3.5 hours a week and 170 hours a year per person for training. The existing training process was organized by job capacity.

To operate a full-scale life-long learning system, various activities and training by team were provided during 3 or 4 months of preparation period. Workshops for team organization were provided, followed by professional service training for speech and vocal exercises.

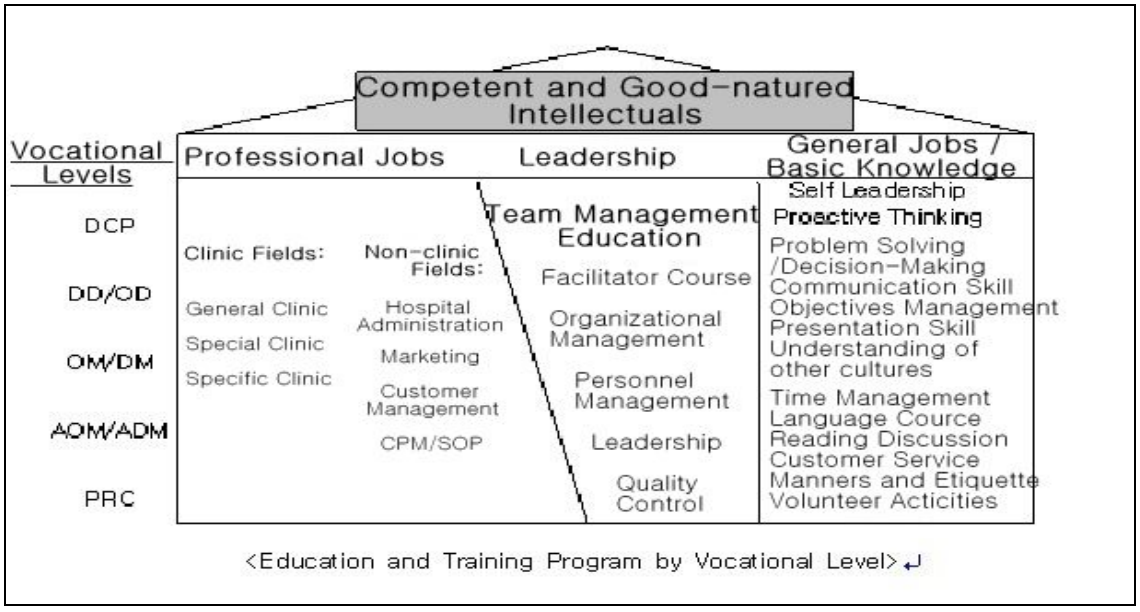
The educational policy of a new learning system is to share responsibility for man-power development between management and employees by providing necessary training to the right people in a timely manner, and to maximize employee development through in-house instructors. The standard training course is made up of job introduction, basic knowledge, leadership, clinical process, team activities, and improvement activities. Employees share cultural information through a 5-minute speech on subjects such as book review and cultural experience, and they learn general, professional, and special clinical subjects, and new materials, equipments, and technologies in clinical characterization classes.

New employees who joined the hospital through public employment have a 2-month internship period for their mentoring relationships with existing senior members and their adaptation. If the internship ends, they have a gown transfer ceremony in which mentors hand down their year-old gowns to their successors. The company created a tradition so that all employees participate in the ceremony to celebrate, and effectively build a strong team.

4. Differences between Skills by Formal Learning and by Informal Workplace Learning

A. Workplace Learning (OJT)

UIC Chicago Dental Hospital has not operated OJT in a separate manner. It operates ordinary OJT without systematic management. Unlike the manufacturing industry in which OJT has been used as a major workplace learning process, OJT cases in hospital services are rare.



<Fig III-12> Education and training program by vocational level

B. Informal Learning (Off-JT)

The figure above shows a training process classified by vocational level. This is a summary of educational needs required by vocational level, designed to conduct educational training based on professional training, leadership, and general affairs or basic knowledge. Even though educational training by vocational level is not properly conducted since the hospital has small employees and the classification by vocational level was made through systematic improvement, it intends to provide satisfactory educational training in this direction in the long run.

5. Core Issues on the Implementation and Promotion of Workplace Learning

A. Reorganization of Working System

Since the working system was changed from 2-group and 2-shift to 3-group and 2-shift as New Paradigm Center advised, working hours for Administrative Section were reduced to a total of 45 hours a week including three hours for training a week in a 14-day cycle, while weekly working hours for hygienists from Clinical Section were reduced from the previous 60 hours to a total of 44.5 hours, including an average 2.5 days a week. However, the shift system that was applied only to hygienists and administrative employees in the initial stage of its introduction resulted in a side effect

causing a delay in patient reservation and schedule, since the working system between doctors and employees was not effectively connected. Thus, doctors also adopted the group system made up of administrative employees, hygienists, and doctors, joining the 40-hour working system, which increased cohesion between group members. Despite a constant modification and complement to the system, their fatigue accumulated as employees worked for separate hours in morning and afternoon groups, and when called upon; if the director, for example, leaves on business, all working schedules should be changed to make up the service gap, though the other team continued to work which led to the introduction of a 4-group and 3-shift system complemented with another team for a more flexible working system.

Since 3 groups a day work in turn under the final 4-group and 3-shift system, a normal clinic was available without a change in schedule if the director went on a business trip. The new patient diagnosis, oral cavity management, and operation teams were separated, which enabled persons to seek the specialization of a specific field. As the possibility of weekend work decreased, and the closing time became earlier, the work burden was reduced, and employees' learning opportunities for self-improvement increased.

B. Improvement of Personnel System

The job promotion system is a system in which employees' levels increase if they meet the criteria previously set for skill or competency by vocational level. This system is operated in such a form that the Personnel Committee reviews the results of job competency and multi-faceted evaluation for those employees who meet the basic service length requirement and then decides their level. Such a vocational system is tied to the compensation system, strengthening the function of motivation.

C. Vision Sharing and Consensus Creation

During the waiting period from the end of consulting to application, a consensus for the purpose and necessity for the introduction of the new paradigm model was created in the whole organization, including the management and design team. By the time the improvements were implemented, a positive expectation for the introduction of the new system had already spread in the hospital. This served as a driving force to overcome obstacles and maintain constant improvement. Employees also took pride in organizational atmosphere and their efforts, and were more motivated to learn.

6. Recognition of Employers and Employees on Workplace Learning

A. Recognition of Management

The management's thinking that it could survive the market competition through employees' constant learning led to full support for education and training. The greatest fruit of systematic improvement, evaluated by UIC Chicago Dental Hospital's management was the constant increase in the number of patients and sales. However, the net profit did not greatly increase because of greater educational and personnel expenses. They accepted that expenditures on education are an investment in the future, rather than an unnecessary expense, and also an impetus to adjust to the environmental pressure of severe competition more quickly than other hospitals. Another fruit of their systematic improvement was the combined decrease in turnover; settlement of horizontal organizational structure; and smooth communication in real-time. As the number of team members increased, they needed more professional people, which naturally encouraged the existing experts to teach new employees. A holiday clinic system was implemented with positive effects of choice and concentration.

B. Recognition of Employees

For the whole hospital, clinic hours increased, as did employees' private time. They felt more interested in learning and came to have much more time to think. They felt that something was changing, and acquired a know-how in using their private time for personal improvement. Since doctors, hygienists, and administrative employees were organized into one team, and had more time to share information related to business by operating the shift system, they could work like a family in a harmonious atmosphere. Communication between doctors and employees increased, which led to an increase in their sense of responsibility. Even though they worked in different fields, the phenomenon of envy towards another's working conditions disappeared, and organizational cohesion increased, as the sense of identity between them grew.

7. Problems and Hindrance Factors of Workplace Learning

As the working system continued to be modified and complemented, they reorganized it into a rotational working system to enhance the efficiency of business and education & training, and enable employees to use their private time in a useful manner; they arranged holidays as regularly as possible; reduced weekend works to the minimum; and reorganized the duty system.

There was the problem in the hospital: really important and time-consuming learning and education are neglected while dealing with urgent matters. Thus, seeking a balance between and harmony of urgent and important things, they made monthly and yearly

plans, rather than a short-term ones so the whole hospital could confirm its annual working schedule in advance; this strategy enabled individuals to make their own long-term plans, and engage in relevant training and other systematic personal activities. The introduction of a team system strengthened the cohesion between team members and served to form a much more horizontal structure between medical teams and employees. While interaction with other teams or communication opportunities was reduced, organizational culture began to change. To overcome this problem and achieve the integration of all teams, the hospital is planning to hold events, such as overseas trips and workshops, in which the whole staff can participate.

<Table III-3> Key problems and alternatives of workplace learning

Key Problems and Causes	Alternatives and Solutions
Difficulties in applying themselves to changed system	Reorganization into rotational service system
Low use of employees' private time	Minimizing weekend services
Difficulties in applying First Things First	Systematic mid- and long-term plan
Low interaction between teams	Providing events at which the whole staff attends

8. Benchmarking Factors of Excellent Examples

A. Timely System Introduction and Integrative Change

UIC Chicago Dental Hospital introduced a new paradigm system at an opportune time when they needed a response to environmental pressure. The management seriously thought of the introduction of a new learning system with a sufficient recognition of the importance of learning. At the very moment when both management and employees shared the need for such a change, they consulted New Paradigm Center.

Attention should be given to their achievement of integrated change by improving working, promotion, evaluation, and compensation systems. The strategic personnel management theory says that if various personnel systems are designed to complement each other and are improved over time, a single personnel system is improved and the effects of performance improvement become much greater. Establishing a life-long learning system, the hospital installed a new vocational level system, and it reorganized evaluation and compensation systems so an integrated change of all systems, not a partial change, could be made with the creation of synergy.

B. Improved Evaluation System

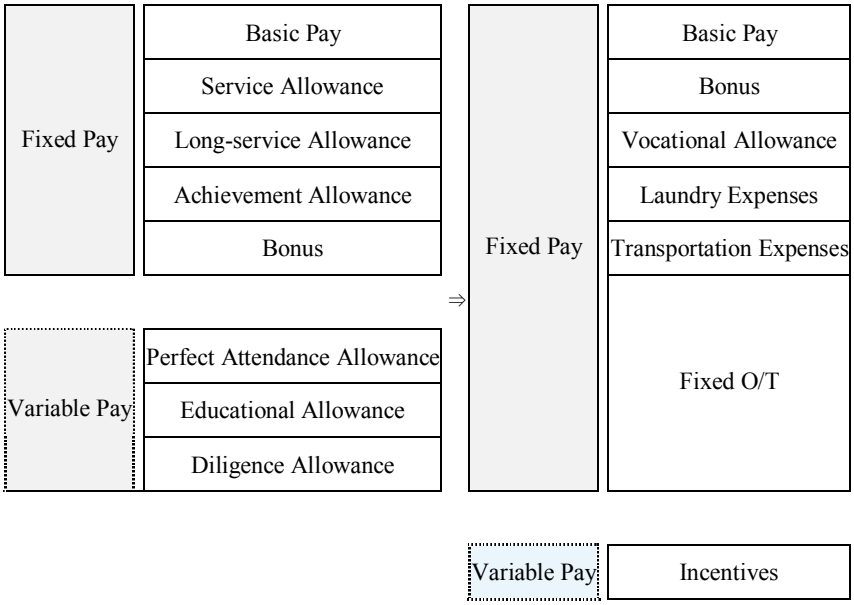
<Table III-4> Improvements of and Operational Plan for Evaluation System

Title	Outlined Evaluation System Design
Evaluation Criteria	Evaluation of capabilities specified in job description
Evaluation Method	Absolute evaluation (5-point scale)
Valuator	Multi-faced evaluation (including self-evaluation)
Evaluation Unit	Integrated evaluation of clinical and non-clinical
Evaluation Cycle	Yearly
Use of Results	Using evaluation results as data for personnel relations such as promotion, training, and development

Since the existing evaluation system lacked the item of performance evaluation due to evaluation standards unreasonably focused on service, and was not linked to compensation, promotion and training systems, it was needed to classify the evaluation system into capability and achievement parts with the latter linked to merit pay. They converted static evaluation items to behavior-centered capability evaluation to enhance correctness in evaluating capabilities. They also converted the current work attitude items to a capability evaluation item so the ensuing evaluation based on capabilities drew out a job description.

C. Improved Compensation system

A considerable number of employees did not have a correct understanding of pay system and construction, thinking that their pay was not satisfactory, even though it was 10 to 15 % higher than the average pay in the same industry. Thus, the hospital reorganized holiday and pay systems in line with the reduction in service hours, deciding to introduce the performance-based pay system to motivate employees on the condition that it would maintain the current pay rate, and the increment in a total labor cost would not be excessive.



<Fig III-13> UIC Chicago Dental Hospital's Improved Compensation System

Basically, it decided to add an incentive system, maintaining the current pay rate without any pay reduction, following the reduction in service hours. It decided to pay the amount corresponding to sales in excess of sales target every 2 months.

9. Factors Affecting Workplace Learning

A. Introduction of New Paradigm Model

The steering committee set the entire operational direction of the project; monitored its progress; and engaged in necessary support and intervention.

The consultant team sent by New Paradigm Center served as a facilitator in the process of applying their new paradigm model to the realities of UIC Chicago Dental Hospital. They also took up the task of conducting vocal training for those who would serve as actual instructors, while constructing a life-long learning system. In addition, if difficulties occurred while carrying out the project, they gave advice for the steering committee to take the initiative in solving problems. Such mutual cooperation and education enabled them to produce a creative improvement system most suitable for the culture and business of UIC Chicago Dental Hospital, and to keep an optimized system and a constant reorganization of education and training even after consulting.

B. New Position System

For an overall improvement of the personnel system, they created a new unit which served to advise on career development skills for employees from clinical and non-clinical sections. Based on job analysis, they drew up a job description containing a detailed description of work and scope by job and capabilities necessary for job performance for employees to see. This job description was used as basic material of personnel management including education and training, and the improvement and evaluation of employees, enabling a scientific and systematic personnel management. The new unit comprised a total of 5 levels including clinical and non-clinical sections. The hospital also introduced a position promotion system to motivate employees to improve their job competency.

<Table III-5> UIC Chicago Dental Hospital's New Position System

Years	Clinical	Non-clinical
1		Trainee (One year for the graduates of 2-year course / Two years for the graduates of 3-year course)
2		
3	PRC (Patient Relations Coordinator)	PRC (Patient Relations Coordinator)
4		
5		
6	ADM (Assistant Dental Manager)	AOM (Assistant Dental Manager)
7		
8	DM (Dental Manager)	OM (Dental Manager)
9		
10	DD (Dental Director)	OD (Office Director)
11		
12		
13~	DCP (Dental Care Partner)	

10. Role of Management in Operating Formal Workplace Learning

Since management innovation is not an easy job, its success depends on the CEO's willingness for a drastic change of organizational structure and business operation style in the re-engineering process. A development-oriented leader, Kim Yeong-hun, CEO and director of UIC Chicago Dental Hospital, has a firm belief that the hospital cannot

survive if it fails to learn new technologies and increase the level of services. He had a strong will to regard the 5 years after the implementation of the system as an investment period rather than yield, based on a long-term vision and investment, not sticking to a short-term performance. Believing that medical capability and customer service capability should be improved through learning to strengthen the hospital's competitiveness and to survive the severe competition, he stressed the importance of learning, setting annual learning volume per employee for 200 hours, from the beginning of foundation. Despite the fact that the hospital had to pay expensive rental fees since it was located at an important point near Gangnam Subway Station, he prepared separate rooms for training within the hospital, and tried to motivate employees to participate in training by arranging educational allowances for participants. Such efforts were based on his belief that the hospital's success cannot be achieved without investment in people.

4. Hanacoby Co., Ltd.

-Organizational Change Leveraged by In-House Learning-

Introduction

The Hanacobi case is one that achieved organizational innovation through employees' active participation under the in-house lifelong learning system (INLS). The in-house learning brought competence development in individuals and an entire change in the organization. Lifelong learning played a positive role in providing belief in employment security to workers; recovering trust between members; vitalizing communication; and securing learning hours through the reorganization of the shift system. Such a consequence largely comes from the CEO's willingness for innovation through learning, and his effective leadership. To achieve such a change, he improved corporate capabilities with the help of New Paradigm Center, an outside consulting firm, constructing a foundation for an effective learning system.

Even though Hanacobi's construction of a foundation for the lifelong system can be a representative case that overcame the limit faced by most small and medium firms, the construction of the knowledge sharing system and a sufficient compensation system are other issues to be solved in the future.

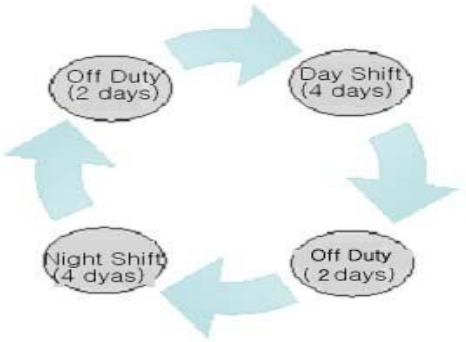
1. Relationships between Corporate Summary and Necessity for Workplace Learning

A. Corporate Introduction

Since its foundation as a manufacturer of airtight containers in 1985, Hanacobi had produced around 600 items of household supplies, such as kitchenware, washroom products, and children’s products, and was integrated into Lock&Lock in 1997. Currently Lock&Lock is exporting to 75 countries, investing over 5 % of sales in R&D to meet consumers' needs, and producing more than 40 new items a year. It reached 87.9 billion won in sales, its total assets stood at 3.5 billion won, and the staff numbered 1,300 with 306 at Hanacobi as of 2006. Hanacobi stood at 73 % in the local market share, recording 1st place in the nation and 3rd place in the world.

B. Organizational Structure and Education & Training

Hanacobi had gone through difficulties due to the overall economic slump and high global oil prices during the 1990s. The economic slump led the company to integrate its two factories as a means of restructuring. Restructuring was inevitable to overcome the difficulties, but based on the CEO's management philosophy, in which human resources is the source of competitiveness, it introduced the 3-group and 2-shift system (which is a system that allots 3 groups to a workshop to operate machines for 24 hours with 2 groups in turn working for 12 hours and the remaining one group attending classes or resting). Hanacobi achieved full employment without firing a single worker. At the time when the lifelong learning system was introduced, the company had many safety accidents due to the absence of education, and it sorely needed education to solve problems, such as insufficient professionalism, site problems, and insufficient independent problem-solving abilities. The company reorganized its personnel system, changed its working system to 3-group and 2-shift system, prepared an educational manual, introduced an educational system to improve the working environment, and provided educational opportunities to employees for the improvement of the quality of life and the fostering of professionals. In particular, it installed a training course, "Innovation Academy", to foster in-house professionals and construct the foundation of lifelong education for the cultivation of talents. The reorganization to a 3-group and 2-shift system provided employees with opportunities to refuel and learn, and momentum for them to change to knowledge workers, not simple workers at their production site.



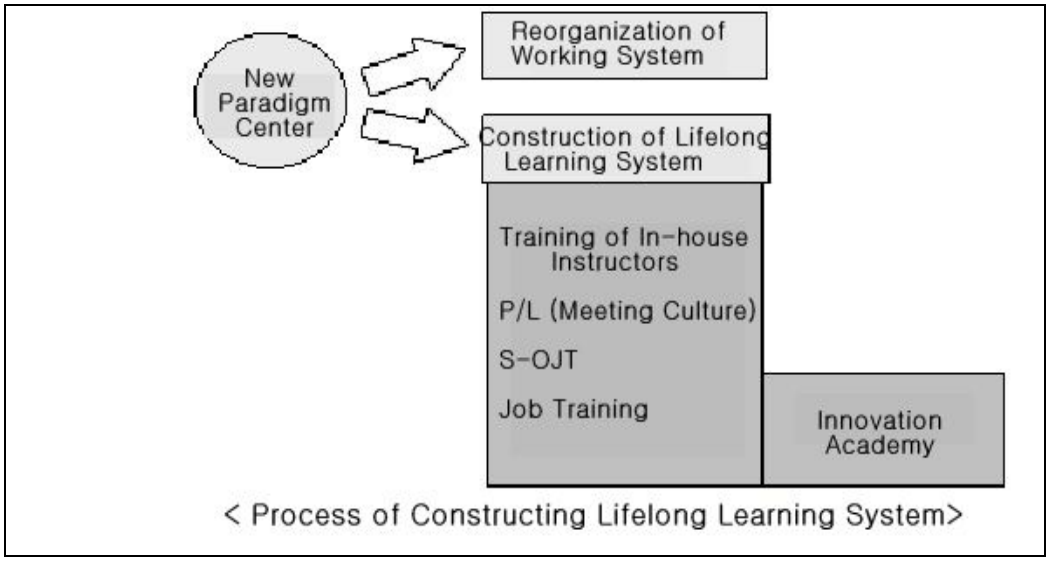
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri
	1	2	3	4	5	6	7	8	9	10	11	12
A												
B												
C												

Daytime (4) → Off duty (2) → Nighttime (4) → Off duty (2)

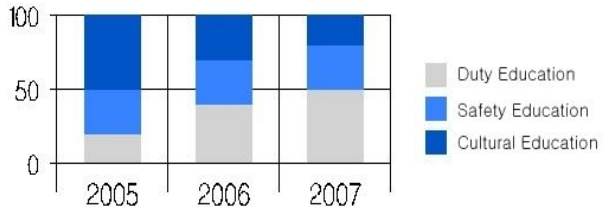
<Fig III-14> 3-group and 2-shift System

Training was given once a week on the next day of day work for all off-duty workers, focusing on investment in the future, rather than seeking a short-term performance or problem improvement.

Hanacobi's Asan factory has no contract or outside workers. All workers there are full-time workers, foreign workers are fairly treated without discrimination in pay, and welfare and quality of life for workers are valued. Such a people-oriented management philosophy became more apparent in introducing a lifelong learning system through a new paradigm project when manpower surplus took place due to the integration of 4 factories.



< Process of Constructing Lifelong Learning System>



<Ratio of Educational Subjects>

<Fig III-15> Process of constructing lifelong learning system & Ratio of Educational Subjects

Training subjects were designed to de-emphasize job training to minimize learners' resistance and burdens of learning in the initial stages, but served to emphasize cultural and safety education with a relatively small burden for learners. This important cultural

education in was initially caused by the individuals' demand for learning. As demand for cultural education was satisfied to some degree, the company increased job training gradually. It provided formal learning for cultural education in class and largely field learning for job training.

The company addressed the educational needs of on-the-job employees while making a training plan; fostered in-house instructors for independent training; and implemented performance-oriented training. Since most traditional training programs had their limits in promoting learning motivation through theoretical description in class, the in-house instructor system was reorganized to fit the situation of Hanacobi. It selected problem-solving learning as the learning subject, largely dealing with on-the-job problems. It increased the expertise of instructors, using outside professionals, such as machine manufacturers and material suppliers for professional teaching.

C. Relationships with the Necessity for Workplace Learning

Faced with a the management crisis, the company envisioned becoming the best airtight container manufacturer in the world by providing the best quality product, trusted in by customers, approved by manufacturers, for the lowest cost. Thus, the management sought to secure competitiveness with productivity and quality improvement and safety accident prevention through constant innovation and active communication. However, communication culture in the company before the introduction of the lifelong learning system remained at a low level, and most workers were passive in performing their jobs. As workers participated in the lifelong learning, they started to talk about what was inconvenient in performing their jobs and what should be improved; they came to pay a serious attention to their jobs. In addition, they had more concern for learning, seeing that their suggestions were adopted by the company and problems were improved. Such a virtuous cycle of learning and better business gradually evolved into organizational change.

2. Scope and Strategic Importance of In-house Workplace Learning

A. Scope of Workplace Learning

<Table III-6> Assignments and Scope of JUMP 2010 Project

Classification	Current State	Designed Direction
Working System	Production Part 1(Injection) 2 Group and 2 Shift system Working for 72 hours a week	3 Group and 2 Shift system Working for 56 hours a week
Job Structure	Absence of job description	Job analysis and classification Drawing up job description → Systematic business operation
Training System	Legal basic training and unexercised formal education	Training for more than 100 hours a year, group activities and training system design

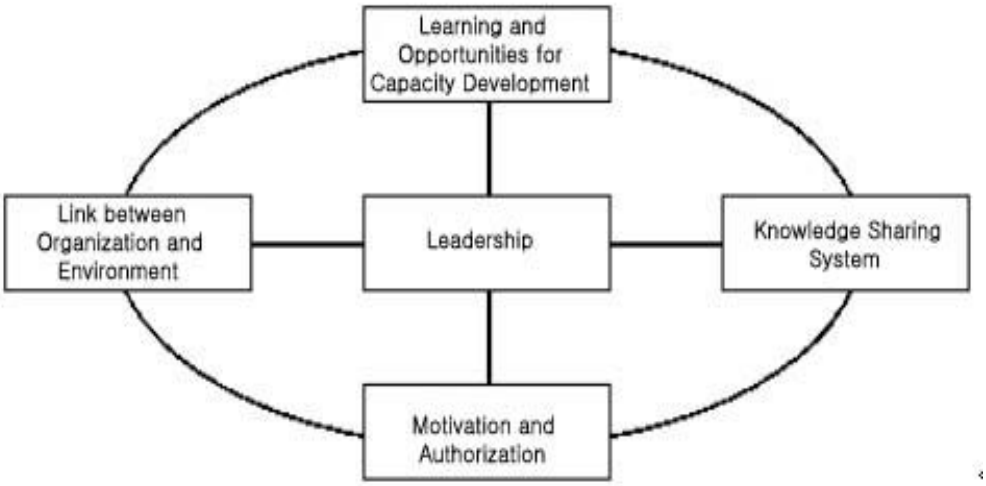
Hanacobi's new paradigm project has been embodied in the 'JUMP 2010 Project' for the construction of lifelong learning system. Hanacobi needed to use its surplus personnel and overcome an internally poor communication and learning system when integrating factories with its rapid development. At this time, the company tried a change to create a culture in which the whole staff could participate and to foster knowledge workers through a lifelong learning system.

The 'Jump 2010 Project' was divided into a working system, job structure, and training system for implementation. Production Part 1 changed its working system from the existing 2-group and 2-shift, weekly 72-hour working system, to a new 3-group and 2-shift, weekly 56-hour working system, to secure training hours. Job structure was designed to perform a systematic business by drawing up a job description through job analysis and classification. A new training system was designed to secure more than 100 hours a year for training, and consider team activities, alternative exploration and proposal, evaluation, compensation, naming, and promotion, replacing the existing formal training system in which a legal basic training is provided.

B. Strategic Importance

At the time when the lifelong learning system was introduced, safety accidents took place frequently due to the absence of training The need for training to cope with

problems like insufficient professional consciousness, on-the-job problems, and insufficient independent problem-solving capability was desperately required. Thus, a systematic training program to fit the vocational system in safety, quality, and productivity was developed so workers could attain basic knowledge.



<Fig III-16> Construction Factors of Hanacobi Learning System

Learning process occurs when the organization adjusts itself to outside environmental changes or creates changes, requiring time and great effort since overall culture in the organization and a change in reality recognition paradigm is required. Thus, it has a motivation system that encourages participation and compensates for learning by giving autonomy to all members on an organizational level in learning. It also supports learning opportunities and methods to strengthen members' capabilities, and provides a system that creates, shares, and spreads knowledge. Here the role of leaders, advocates, and supporters of learning who create spaces for learning, can find and spread their best practices.

3. Specific Methods and Importance to Apply Workplace Learning to Skills

There is difference between departments in providing opportunities for learning and capability development. Even though they belonged to the same department, the team performing tasks that needed joint work were allotted more training time. Since senior employees teach junior members what they learned through training, and talk about what they learned while working, the latter is naturally applied to business. The results of such training had an effect on strengthening the on-the-job training capabilities of

team leaders in workshops. They were able to systematically teach their junior members work process and know-how in various and individual work sites.

4. Differences between Skills by Formal Learning and by Informal Workplace Learning

A. Formal Learning

Hanacobi's education & training process is operated in the same way that an annual training plan is made, and the training schedule is delivered through in-house notice and e-mail. Then staff makes a manual for in-house instructors and notifies relevant instructors to teach, and those instructors report results. The in-house curriculum consists of job, innovation, legal matters, and cultural substance, and training is provided for 96 hours a year. The training includes organizational visions and management policies, business trend, rational way of thinking, how to make an efficient use of information and IT, civility, and general knowledge, which are general skills. Cultural substance is designed to enhance pride in the organization, internalize organizational values, and strengthen employees' organizational activities and capabilities.

B. Informal Learning

The introduction of workplace learning served as an opportunity to basically strengthen the organization.

An employee said in an interview, **"Before the introduction of learning system, workers used machines without any knowledge of how equipment works, and what those signals from instruments mean. Thus, whenever minor abnormal signals take place, they had to report to their superintendent and officers and ask them to solve problems. Now we have come to use that equipment and those machines by ourselves, as we have received equipment training with a basic knowledge to solve problems through job training."** Workplace learning changed simple workers, who had just served as assistants, into knowledge workers, who understood how production equipment worked, how to control it and ways to lead performance improvement. In addition, it enabled productivity improvement and workplace innovation by having employees make effective use of accumulated on-the-job knowledge and share it with other employees.

5. Core Issues on the Implementation and Promotion of Workplace Learning

A. Fostering In-house Instructors

In-house instructors are role models for those supporters helping to plan and implement workplace learning, and those exemplary learners delivering new knowledge from outside to inner circles. To secure such in-house instructors, the company trained managerial employees and best field employees to be in-house instructors; strengthened their capabilities through job-relevant procedure development,; and arranged to take an in-house instructor course through manual production training for in-house instructors and S-OJT. S-OJT is a learning process that establishes basic teaching substance, method and time in advance, and it is led by senior members in accordance with a given procedure on the job site. In-house instructors are provided with opportunities to change their personal career route. If on-the-job employees work as in-house instructors for more than 2 years, they can be transferred to managerial or research positions. Such availability for career change had an important effect on the settlement of the in-house instructor system.

B. Providing Opportunities for Lifelong Learning through Change in Shift System

Hanacobi secured 8 learning hours a month by changing the existing 2-group and 2-shift system to 3-group and 2-shift system for the operation of the lifelong learning system. Work groups are classified into A, B and C with each group resting for 2 days after working for 4 days and attending classes (8 hours) during holiday a time in a month. Curriculum is made up of job, innovation, legal studies, and cultural substance, and 96 hours of training a year are provided. The company pays educational allowances to workers participating in training so they do not suffer any loss in their pay due to work shift system reorganization, encouraging them to participate in training. Such incentives will be expanded in the future.

C. Supporting Workers' Learning

Hanacobi is operating a learning support team by which employees are supported with all or most educational expenses when they participate in outside group training, post or communication training, and private institute training, as well as in-house training. It also supports employees' participation in outside language courses, or job-related capacity improvement programs such as Word, Excel, and Office Automation. The company operates a reading room for employees to use after business hours, two

training rooms, and a language lab for their improvement in language abilities. In addition, it employs professional Chinese instructors, including them in a training team, and runs a Chinese conversion course that was founded in a factory in China.

6. Recognition of Employers and Employees on Workplace Learning

A. Recognition of Management

Hanacobi employed additional personnel when the integration of two factories occurred without restructuring or outsourcing, giving them opportunities for learning. The company's management philosophy regarding environment and people and the CEO's people-oriented management style played a decisive role in motivating employees to learn, as the company demonstrated its concrete learning system. Accordingly, Hanacobi installed a learning support team dedicated to employees' learning, and it actively supports their participation in various internal and external training programs, providing time, expenses, and spaces for education & training.

B. Recognition of Employees

Before introducing the lifelong learning system, indecent language exchanges or assault accidents between some on-the-job employees took place; mutual respect or confidence culture between employees was rare; and fear of loss in their pay from the reorganization of the work shift system prevailed. However, after introducing the lifelong learning system, it seems that communication in the organization and confidence in the company and fellow workers increased considerably. As holidays and bonus time increased with the reorganization of the work shift system, opportunities for self-improvement increased, and workers felt that quality of life improved. Finding their capabilities improved little by little through learning, employees became confident, and they enjoyed education & training, while their view of education improved greatly. As they shared what they learned, talked to each other, and were harmonized, corporate atmosphere Brightened. They experienced growing satisfaction and self-confidence in learning itself. For learners the potential desire served to motivate their spontaneous and active participation in training

7. Problems and Hindrance Factors of Workplace Learning

Because of difficulties in securing professionals necessary for operating the in-house, on-the-job training course, the company strives to appoint in-house instructors and foster them as experts. There are limits in accurately measuring the performance of

education & training, and a great difference in participation between departments, because of some department heads' relatively low recognition of education & training, in spite of relatively voluntary and active education & training. Beyond organizational division by team and function, the company lacks capabilities to share information on learned skills, solve problems, create new alternatives, and make effective use of knowledge.

<Table III-7> Education & Training Problems and Solutions

Issues	Solutions
Insufficient Expertise of Human Resources	- Improve expertise through outside education on commission.
Importance of Education & Training (Systematic Education & Training)	- Provide vocational education and other educations on commission in addition to job education. - Improve business capability (understand department needs).
Insufficient Information Capacity	- Obtain and review information on education for small and medium firms in advance, and adjust it to corporate situation before using.
Department Heads' Insufficient Understanding of Education & Training	- Clearly Deliver the importance of education, the purpose and purport of education & training, and encourage voluntary participation.
Construction of Knowledge Sharing System	- Convert obtained learning stuff into work manual and knowledge DB to apply it to actual business.

In addition, insufficient compensations for learning, challenging and exploratory dialogues and non-hierarchical communication culture are also obstacles to more active workplace learning. In particular, even though various compensations (which should be valued in providing opportunities for learning and capability development,) are very important in motivating employees to learn, they have not yet been implemented; this need should be urgently rectified.

8. Benchmarking Factors of Excellent Examples

<Table III-8> Effects of group-shift policy and learning system change

Previous	Change	Effects
2 groups and 2 shifts	3 groups and 2 shifts	- Relieve fatigue, and increase leisure time - Secure learning hours, and maintain employment - Construct all-year-round operation system
Absence of learning system	Training for more than 100 hours a year	- Emotion, character and basic skills training - Safety and job education - Strengthening employees' capabilities

The change of working system to 3-group and 2-shift system served as an opportunity to make employees take jobs as a part of their lives, not a means of living. However, as working hours reduced from 72 hours a week to 52 hours a week, fearing that their pay would decrease, workers showed a negative response to the reorganization of the working system. The company introduced the weekly 40-hour working system earlier, and took 8 hours of job training as holiday work, while it lessened the reduction in pay, and even offset it by a sufficient rest and an improvement in quality of life.

9. Influences of Governmental Policies on the Development of Skilled Technology

A. Development of Workplace Learning Manual

The company fostered managerial employees and the best on-the-job employees as in-house instructors, and made them develop their professional capacity through job procedure development and an outside in-house instructor training course. In addition, it standardized and documented business practices to secure educational data, and it shared knowledge and information through training, while using the S-OJT technique to systemize workplace learning.

<Table III-9> Development of Educational Manual

Classification	Key Points
Purpose of Development	-Field process standardization and diagnosis -Introduction of work system for corporate growth

	-Obtaining educational data, and sharing knowledge and information through education
Procedures for Main Works	-Procedure for mold replacement; procedure for product trail; procedure for shift system meeting
Procedures against Crisis	-Procedure against civil affairs relation; procedure for handling industrial accidents; procedure against fire
ShEQ	-Safety diagnosis report, and quality diagnosis report
Future Plan	- Securing process standardization and educational manual preparation through additional preparation of procedures for main works and procedures against crisis

B. Personnel Management System

The change of the work shift system from the existing 2-group and 2-shift system to a 3-group and 2-shift system brought great impact to all aspects of the organization, including employees' life and worksite culture. The company secured learning hours through a change in the work shift system, and issued administrative regulations including holiday usage and diligence handling through diligence management regulations. It specified all administrative regulations in employee diaries to officialize and spread them. To establish the foundation of a systematic personnel management, it implemented job classification and business adjustment for all jobs in the factory, and specified their roles and responsibilities for key jobs, and job performance requirements so they could be used in job conversion, placement, training plan, and employment.

C. Outside Consultants

In organizational change, outside experts' help can sometimes be very useful. For Hanacobi, outside consulting served as a catalyst for its change to the fullest. Hanacobi's current efforts to strengthen the link between the organization and environment remain at a rudimentary level that disseminates corporate visions, development direction, and current management performance through education & training. This is one of those steps introduced while constructing the lifelong learning system through New Paradigm Center and benchmarking Yuhan-Kimberly's success model. While Hanacobi introduced the lifelong learning system, New Paradigm Center's consulting and support encouraged support by its management and change officers, so it could reorganize the system with belief in the results of employees' learning.

D. Management Crisis

Hanacobi has experienced difficulties for the past few years due to factors like the overall economic slump and global high oil prices. Thus, it could not help overcoming such difficulties through restructuring that integrated the two factories dispersed in Incheon and Asan. However, amid such difficulties, it changed its working system to 3-group and 2-shift system for the first time in the injection industry, from the existing 2-group and 2-shift system, with workers having no time to enhance their quality of life; this change provided employees with opportunities to recharge and the company with greater potential for productivity and quality improvement.

10. Role of Management in Operating Formal Workplace Learning

A. Intention of CEO

The manager of Hanacobi factory comes from Yuhan-Kimberly, famous for knowledge worker training through intensified workplace learning. Believing in new change, he led the transition, especially displaying leadership with a specific vision for the desirable future of the factory's members. Stressing the importance of knowledge workers, he fully supports education & training. The organization of the training team and the securing of professional personnel, which enable the implementation of management strategy are very helpful in activating its knowledge worker training strategy.

B. Intention of Responsible Officer

The executive director of Hanicobi factory from Yuhan-Kimberly had a great interest in talent training through education & training, and he provided much support for it. When the manager started his position at Hanacobi, he found that the overall business atmosphere and operational system in the company was far below the global standard. Since all decision-making and plans for key issues were concentrated on the management, working-level officers-- such as directors and vice directors --were passive in business. To improve the inefficient operational system and in-house culture, he reorganized the work shift system, and he intensified education for employees' development and safety under full support by the company.

5. Miju Co., Ltd

Introduction

Miju, an automotive parts producer and a supplier to Hyundai Motors Company, provided few systematized workplace learning opportunities to employees before introducing the learning organization system. In practice, the government-funded learning organization project was highly appropriate for SMEs like Miju, which were supported by a package of various programs that correspond to the workplace learning fit for the way they typically develop dexterity.

The learning organization project for SMEs has empowered the Company to be equipped with the basic learning system; allocate necessary expenses to the regular budget; and apply the learning results to personnel management. When the Company participated in the project, employees were assured of their time, spaces and expenses for learning activities, thus making learning belong to their life. However, as learning was restricted to non-working hours, they had to stay at the Company longer. At any rate, the Miju case shows that employees can change themselves to improve their work capabilities and develop their organization, when their company is first interested in their individual educational needs in order to alleviate their cultural deprivation.

In addition, the case demonstrates that when properly supported, n active participation can be made in the workplace learning project by any company that is known to be at least a little interested in the development of employee's ability.

1. Overview of the Learning Organization Project for SMEs

The understanding of Miju's workplace learning requires preferentially figuring out the government-funded learning organization system for SMEs. This project is designed to promote the lifelong learning and vocational ability development activities and contribute to establishing the competitiveness of SMEs by improving the work capabilities of employees. The project is carried out by way of helping to compose the learning organization of workers via the labor-management consultation; supporting the type specific expenses; minimizing the burdens of SMEs short of their own abilities; developing excellent examples; and expanding the human resources development of SMEs. The support is provided to the employers of the enterprises for preferential

support[3] and the employers' organization set forth in Article 15 of the Enforcement Decree of the Employment Insurance Act.

The support for the learning organization in SMEs is made up of nine types. Roughly speaking, it is divided into the learning preparation area (learning organization consulting, employment of personnel development officials and learning space construction), the learning activity area (learning group activity, mentoring system and OJT (on-the-job training) program development) and the infrastructure area (learning vocation system, knowledge sharing system and excellent learning support). The support types for participant enterprises are decided via screening by the Human Resources Development of Korea (HRD), if the enterprises select the types they want in accordance with their developmental stages.

<Table III-10> Developmental stages and support methods

Developmental Stages	Support Methods
Stage 1: Basic stage for learning organization. The necessity is recognized by employers and some employees.	Support is provided to the five types of learning grouping, learning space construction, learning networking and excellent activities.
Stage 2: Improvement stage. The necessity is recognized by the majority of employees and an active interest is shown by the management.	Additional support is provided to the three types of consulting, mentoring and learning vacation.
Stage 3: Developmental stage. The active attitude toward learning is formed by the active participation in learning and sufficient support.	Additional support is provided to the two types of responsible officials and knowledge management system.
Stage 4: Take-off stage. Learning is jointly led by employees and in networking with outer institutions.	It is possible to add for graduation and learning.
Stage 5: Maturity stage. Learning becomes one of the most important duties and network learning plays a leading role.	The functions of partners are strengthened without additional support.

With roles divided, the project is jointly pursued by the Ministry of Labor, and the head office and branches of the Human Resources Development of Korea (HRD). The Ministry of Labor presents basic project guidelines and pays the project's expenses to the head office of the HRD. Participant companies apply for support funds to the

[3] Preferential support is provided to the SMEs set forth in the Framework Act on SMEs, or the manufacture enterprises with 500 or fewer full-time employees, the mining, transport, warehousing and communication enterprises with 300 or fewer employees and other enterprises with 100 or fewer employees.

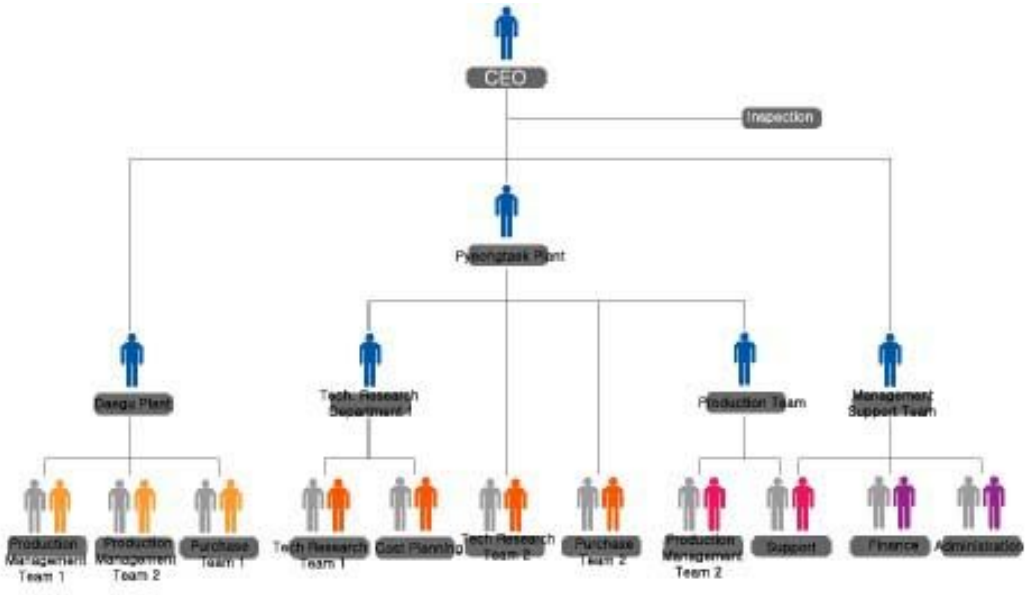
branches of the HRD in accordance with the types of application, and the head office of the HRD decides the scopes and payment methods of the funds in consultation with its branches, paying them to the companies involved.

2. Relationships between Corporate Summary and Necessity for Workplace Learning

A. Corporate Scopes, Business Types and Types of Products/Service

Miju Autotech, an automotive parts manufacturer, has a sales amount of some 5.6 billion won and more than 180 employees. For the most part, the company produces and supplies the automotive parts demanded by the automotive manufacturers like Hyundai Motors Company. In order to preoccupy the competition superiority in bidding, it is important to raise the levels of technology, quality and payment. Hence, it must be possible on the spot to learn, by means of OJT or mentoring, the parts that are not covered by formal collective education.

Miju Autotech was established in the name of Dongjin Industrial Co., Ltd. in November 1974. The company was renamed into Miju Metal Co., Ltd. in 1993, which built Miju Autotech Pyeongtaek Plant in 2004 and constructed the production lines of Daegu Second Plant in 2005. In 2007, Miju Autotech and Miju Metal were merged into the current Miju Autotech Co., Ltd. As an automotive parts supplier, the company produces automotive bodies and parts and supplies them to Hyundai Motors Company. Currently, it has more than 180 executives and employees, who are composed of more than 20 management members, more than 100 skilled field workers and more than 60 temporary employees. As of 2007, its capital and sales volume amount to some 6.8 billion won and 5.6 billion won, respectively.



<Fig III-17> Organization chart of Miju Co., Ltd

B. Relationships with the Necessity for Workplace Learning

The three factors of technology, quality and payment are the most important criteria for Miju, whose competitiveness depends on its ability to produce and supply the automotive parts demanded by automotive manufacturers like Hyundai Motors Company. This is because it is impossible to occupy supremacy in the bidding among parts manufacturers without such ability. In practice, Hyundai offers competitive bidding opportunities to providers on the basis of the 5☆ evaluation standards in terms of technology, quality and payment. Accordingly, it is necessary for Miju to be equipped with the abilities of new technology development, marketing and quality innovation, if the company is to preoccupy competition supremacy in bidding. To this end, it is important for Miju to manage its inner knowledge with knowledge management and incorporate outer knowledge into the inner knowledge. Nevertheless, Miju's employees feel little crisis on account of the OEM production system, nor does it recognize the necessity for change. This is a very serious problem. Therefore, it is vital to distribute the company's specific vision to employees and share skilled technology and knowledge using workplace learning.

Moreover, the parts production/ manufacture industry is characterized by the fact that the skills specialized for each worker and workplace are formed on the spot, but it is difficult to acquire such technology, using the external formal education that deals with general knowledge. Hence, it is necessary to acquire skills via OJT, mentoring or working on the spot. It is really impossible to execute formal collective education, since

production is obstructed, if the education is provided to all the production line workers. After all, workplace learning should be conducted on a more systematic basis.

3. Scope and Strategic Importance of In-house Workplace Learning

A. Scope of Workplace Learning

Miju has participated in the learning organization project for SMEs for the past three years, and it carries out two learning group activities a month. Each learning group meeting is held for one working hour.

In addition, OJT education is provided to new employees for 40 hours over three. One day is allotted to the introduction of the company/teams and the education of regulations and work etiquettes; two days are allotted to on-the-spot experiences and safety education, whose manuals were completely manufactured in 2007.

Furthermore, the in-house expert system is implemented: the experts, selected to have the highest and best experiences and skills, function as advisors for diverse matters and as instructors by holding one lecture every two months.

B. Strategic Importance

Organizational culture has been positively changed by learning group activities. For example, when discovering problems in the company, employees carried out the learning group activities to seek solutions. While participating in the activities, they tried to search for solutions and applied them to the spot, which has become a driving force for the positive corporate development.

As communication has been actively made smooth between management and labor by learning group activities, it has been made easy to share the values and visions of the company. Indeed, there was no communication between office and field workers, but learning group activities have brought about positive results, such as the increase in the mutual understanding and communication among the both workers.

Lastly, employees have come to recognize the necessity for learning, and the culture of discussion and meeting has been revitalized in the company. They urgently felt the necessity for learning, when seeing the contents acquired from learning groups leading to the improvement in performance (reduction in cost) on the spot. In addition, they have become very highly self-confident by having their own proposals via the learning groups' competition recognized in the company. Corresponding to the intention of the

management that seeks knowledge management, such change in mind among employees can be referred to as a very important one.

4. Specific Methods to Apply Workplace Learning to Skills

A. Learning Group Activities, KMS (knowledge management system) and Supporting Excellent Learning Activities

Presentation on learning activities		**Composition of learning groups**		**Planning, evaluation and compensation of learning groups**		**Operation of learning groups**		**In-house celebration in recognition of learning performances**		**Follow-up management**
Annual project plan included	⇒	**Autonomous composition**	⇒	**Operation (draft), evaluation, remuneration, supplement and decision**	⇒	**Monthly evaluation and remuneration**	⇒	**Evaluation and compensation**	⇒	**Application to performance evaluation Establishment of follow-up management policies or plans**

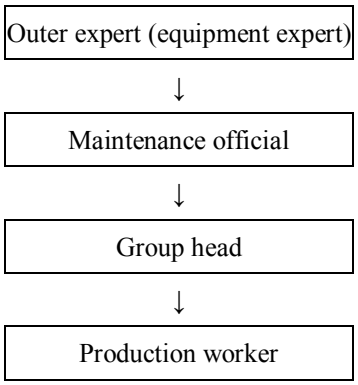
At the beginning of the learning organization project, Miju held an official inauguration ceremony for learning groups, explaining the project to all the employees and encouraging them to participate in it. According to the explanation, the groups engage in workplace learning as follows. A learning group aimed at the improvement of working environment studies how to minimize the work burdens of production workers and construct a comfortable work environment. Another learning group "Quality", composed of the employees of the quality assurance team, had experienced employees teach new employees the basic duties they must know at work and thus share them with them.

The knowledge and technology so accumulated through such activities are documented and registered into the KMS system. If learning group activities are finished, their

content and all the results produced after the completion of the activities are registered into the KMS system, and shared with each other by all the employees.

The learning group and KMS activities of every employee are applied to performance evaluation (6 % and 7 %, respectively). Of the employees who registered excellent knowledge, 100 thousand won and 500 thousand won are given to each of the distinguished for each quarter and each of the most distinguished for each year, respectively. In addition, prizes are awarded for the contents of learning group activities at the in-house learning performance competitions and incentives are given to the prize winning teams in terms of performance evaluation.

B. OJT



LIST of OJT Teaching Materials	
● PLC management in general ● Independent maintenance ● Form management ● Quality management ● Raw materials management ● Basic knowledge for work life	● Product structure and function ● Safety management ● Three "regular"s and five "behavior"s ● Welding technology ● Parts exchange cycle/condition setup ● Glossary

Recently, Miju has introduced automated robot machines in order to boost efficiency in the field of production. In the past, employees learned skills outside the company to master how to manage and operate robots. However, if every employee outside receives training, there may be disorder in the process of production. This has resulted in the implementation of the OJT education: One official outside learns skills from equipment experts and then distributes them to other employees. If any problem arises on the spot, the official solves it together with the employees involved. Such process allows engaging in workplace learning and distributing skills. Whenever such problem is solved, the official documents its details. The OJT work manuals are manufactured on the basis of such documentation.

5. Differences between the Technical Development by Formal Learning and the Skills by Informal Workplace Learning

A. Technical Development by Formal Learning

Currently, Miju has annual extra-company education plans. Accordingly, employees (80 in 2007) apply for the courses related to their duties and receive education at outside institutions on the appointed dates. In terms of contents, the education is made up of PLC and CAD, 6 sigma quality management, and management and leadership. It helps employees to foster work skills and abilities. However, the company has difficulties in implementing the education, since it has to bear high expenses and tolerate the work losses from such education. Moreover, employees are discontent with the outside education led by difficult theories. In practice, the knowledge is not easy to apply to the spot and the education does not take the levels of learners into consideration.

B. Skills by Workplace Learning

The learning group activities enable employees to learn skills and work knowledge, which leads not only to the ability reinforcement of employees, but also to the reduction of costs and the improvement of work environment.

A learning group "Quality" improved the capabilities of each group member, sharing the skills and implicit knowledge on the spot works. Another learning group aimed at "the study of musculoskeletal system" improved work environment. Its members proposed the improvements of work environment, which led the management to decide the introduction of convenience and automation devices. A third group on PLC showed a cost reduction of annual 24 million won by improving the PLC program on the basis of joint study.

The OJT activities allowed employees to learn specialized works on an effective basis. Skills are mastered by acquiring solutions to the problems on the spot after trial and error and applying them to the spot again. Such skills, applied exclusively to Miju's production line, have a very special character.

6. Core Issues on the Implementation and Promotion of Workplace Learning

A. Solution of Cultural Deprivation[4]

[4] Also referred to as social malnutrition, deprivation, under-privileged status, etc., cultural deprivation has been used as a concept that refers to the academic failure of the children from the under-privileged class in the United States since Frank Riessman published *The Culturally*

In terms of the purpose of workplace learning, Miju's learning leaders consider it most important to solve the cultural deprivation of production workers in small and medium enterprises. Having engaged in repetitive tasks for 10 to 14 hours a day during a long period, the majority of workers had such few opportunities for self-development and social participation that they often lacked social capabilities. Such cultural deprivation is related to the shortage of learning ability, the negative self-consciousness, and the lack of social relations. In consideration of such circumstances, the leaders checked individual learning abilities and encouraged them to learn the positive self-recognition and the basic common sense needed to be citizens and members of society. In addition, they let workers exercise dialogues and discussions and present their own views during learning group activity hours. They believed that when such deprivation is healed, it would be possible for workers to join the learning activities for enhancing their own work and corporate results. It is judged to be very proper to be actively interested in the learning requirements from individual workers and to be connected to organizations by the workers.

B. Application of Learning Results to Performance Evaluation

Miju applied the learning group activities and the KMS knowledge registration activities to the 6 % and 7 % of performance evaluation, respectively. Hence, employees showed an increased rate of participation in learning group and KMS activities, which was applied to prizes and incentives, thereby promoting workplace learning.

C. Opening of Events and Payment of Incentives

Miju made evaluation of and compensation for the workplace learning activities of workers at the in-house learning performance competitions and workshops. Workers were more encouraged to participate in learning by awarding prizes, in addition to the presentation of excellent examples and giving incentives that were applied to performance evaluation. Such events provided workers with the opportunities of solidarity and festivity and motivated them to engage in learning activities.

Deprived Child in the 1960s. The children experience the shortage of intellectual development (sex, visual identification ability, time concept and numerical concept), linguistic development, learning ability and problem solution ability due to the lack in visual, audio and tactile stimuli and verbal and non-verbal interactions with parents (Pearl, 1971). The similar phenomena of cultural deprivation also take place in the adults that continued to lack cultural contacts.

D. Continuous interests and feedbacks of an outer consultant

Miju utilized Daeun Economic Institute as an outer consultant to give feedback on learning to the management and the employees, such as learning leaders, group chiefs and members,; it also used the Institute to play the role of a continuous coach . The coaching role was a great help and aid to the officials and employees in a small or medium enterprise who did not yet get accustomed to workplace learning.

E. Inducement of participation in the management

Above all, it is important for workplace learning to receive interest and support from the management. This is why Miju's education officials induced executives to participate in all the courses, including the competitions, the interviews with an external consultant, and the learning group activities, making the management recognize the importance of workplace learning. As a result, the management actively supported workplace learning activities.

7. Recognition of employers and employees on workplace learning

A. Recognition of management

According to a consulting agency, the questionnaires to the management of Miju showed that learning group activities greatly contributed to the distribution of corporate visions among employees. Second, employees did not share their own know-how in the past for fear that such sharing might deprive them of their positions, but a culture of sharing knowledge and skills had been established via the on-the-spot OJT and learning group activities. Third, the existing OEM production method made employees lack a sense of crisis and feel no necessity for any organizational and personal change, but workplace learning enabled employees to recognize the necessity for self-development and change. This led the management to actively participate in and support workplace learning activities. This result had been made possible by the fact that the management organized workplace learning systematically based on the three year roadmap, in order to establish learning culture.

<Table III-11> 3-year roadmap for workplace learning environment

Stage 1 (1st year)	Construction of learning infrastructure
Stage 2 (2nd year)	Formation of autonomous learning culture
Stage 3 (3rd year)	Connection of learning results to corporate performances

B. Recognition of Employees

According to a consulting agency's questionnaires to Miju employees, the employees thought before their learning group activities that the education provided by the company did not improve expertise or skills. Second, they thought that the company did not properly support their career management. Third, they had a low level of trust in the management, and many of them did not know corporate management strategy well. However, as they operate learning groups themselves for workplace learning, employees came to trust in the management, realizing that the company supported their capability management. Furthermore, autonomous learning activities enabled learning culture to be distributed among employees and recognize the necessity for learning.

8. Problems and Hindrance Factors of Workplace Learning

When executing the learning group activities, employees, who did not strike a balance between work and learning, showed no sufficient plan and preparation for the activities. In addition, team chief-level employees (Forties), having little sense of crisis, did not feel any necessity for change and learning and thus participated in learning in a passive way. And because they had to carry out learning group activities during work hours, they had difficulties in concentrating on the participation in learning group activities, when they were busy working.

Miju's research employees showed a retirement rate of 20 - 30 % in 2006 for the reasons of the human relations among team members and the wages. This is why the company incurred great losses in the cost and time of the re-education by the workplace learning for new employees. The expert workforce's drainage that takes place, if skills rise in level is an important problem which impedes the investment of human resources development.

9. Benchmarking factors of excellent examples

Miju participates in the Learning Leader Networking[5] in Daegu-Gyeongbuk region. Such Networking enables management to benchmark the content of the company's workplace learning and share knowledge via human networking among instructors. Miju applies the levels of participation in learning group and KMS to the personal

[5] Learning Leader Networking: Group of the instructors at the SMEs located in the same area; Learning in Cooperative Network: Network organization intended for innovativeness and improvement.

management of employees, thereby making it possible to evaluate the workplace learning activities of employees and encourage them to participate in the activities more fully. The company motivates employees to learn more aggressively by giving them and their teams incentives in performance evaluation, including more than a certain amount of money to the persons registered as excellent knowledge owners at the KMS.

In addition, Miju allows all employees to share the learning content of all participants by holding the in-house competition and prize awarding ceremony. Regarding learning performance, they can win recognition at staff ceremonies, thus promoting their will for learning.

Furthermore, it is noteworthy that the management shows its direct participation in learning with high interest and aspiration. The outer consultants, as well, can maintain the learning mind of employees by providing them with education related to workplace learning at every monthly meeting. It can be referred to as an excellent way to develop workplace learning while maintaining continuous communication with outer consultants

10. Influences of governmental policies on the development of skilled technology

Till 2008, Miju has participated in the learning organization project for SMEs of the Ministry of Labor since three years ago.

The learning organization project has allowed to Miju to organize learning groups and execute workplace learning. As a result, learning culture has taken root in enterprises. With in-house experts and the introduction of OJT programs, it has been possible to distribute outer knowledge inside effectively and document inner skilled knowledge and implicit knowledge in manuals. This has enabled Miju to share and develop skilled knowledge effective inside the company. In the future, solutions must be sought regarding the shortage of expertise at the governmental agency in charge of support and the inflexible control-led administration.

In addition, project evaluation indicators are focused on management results, rather than learning results. The most important learning result must be the solution of the above-mentioned cultural deprivation. In the environments of small and medium enterprises, the roles and results of learning are all diverse. Indeed, it is necessary to achieve measurable economic performance, but there are also performances that are more important than economic ones. Accordingly, it is necessary to make a project evaluation that strikes a balance between economic performance and other important indicators.

6. Youngjin, Co., Ltd.

Introduction

Youngjin systemizes the in-house workplace learning fit for itself by participating in the learning organization project supported by the government to SMEs. The positive change in industrial relations can be referred to as the most important results of the Company's learning organization. Workplace learning has had an influence on the organization in general, as well as the development of skills; it especially contributed to the mutual understanding and desirable relations between labor and management. The learning organization project for SMEs is a project to support their workplace learning, unlike the existing government funded ones. The project is properly designed to foster the core workforce in SMEs, since the government supports the resources necessary for various workplace learning activities in which work and learning are combined with each other by permitting workers to engage in autonomous learning activities.

Workplace learning has empowered the workers to recognize their learning capability which they did not perceive. When they became confident that they could learn new skills or change their life, they would have a more flexible attitude to change. Skill development improved organizational performance, as well. The SMEs learning organization initiative (SLOI) has provided a significant opportunity to Young-Jin to be a learning organization which ensures that the employees initiate something important to both their own life and workplace.

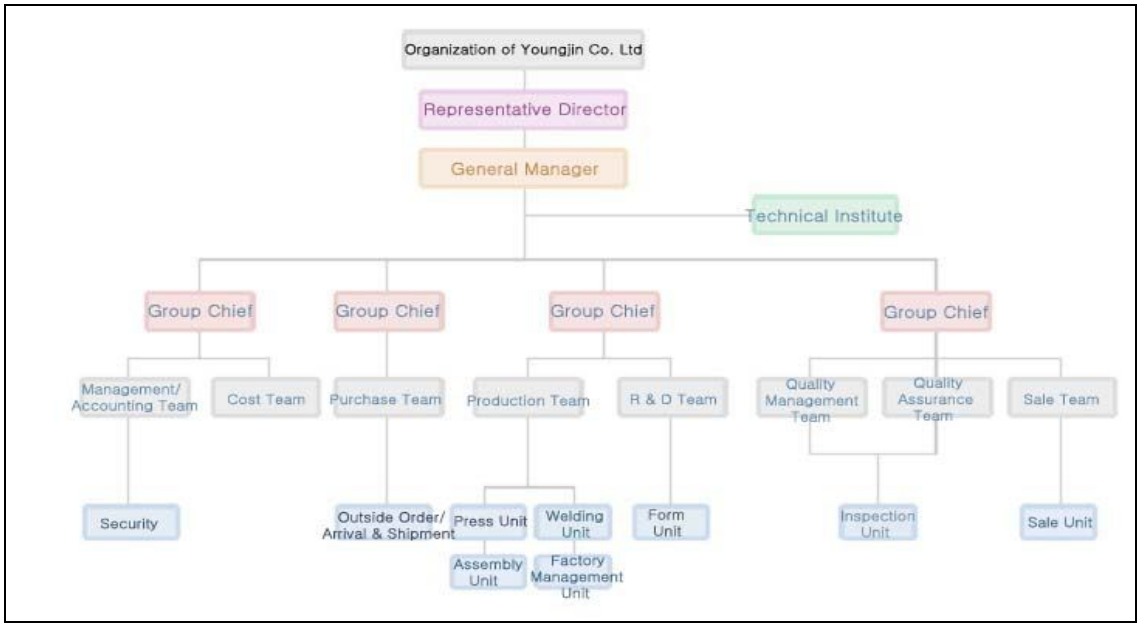
1. Corporate Overview and Necessity of Workplace Learning

A. Scope and Type of the Company and Types of Products and Services

Founded as a manufacturer of automotive parts on April 12, 1978, Youngjin Co., Ltd. mainly produces press processed and assembled goods. Currently, the company has grown into an enterprise which has a sales amount of some 36.4 billion won, a capital of some 915 million won and more than 110 employees. The members of the management work in the fields of R & D, accounting, materials and quality management; the employees on the spot engage in press, welding, assembly and so forth.

As a supplier for Hyundai Motor Company, Youngjin merely manufactures the fixed parts in accordance with the design drawings of Hyundai Motor. Accordingly, what is important for R & D experts is to stabilize the process after trial and error in the manufacturing of products, rather than develop items, and to find solutions and

improvements, when any problems occur. On the other hand, what is important for the management is to improve quality and reduce costs, rather than develop new products.



<Fig III-18> Organizational map in Youngjin, Co., Ltd.

B. Necessity of Workplace Learning

Currently, the management feels a sense of crisis, since the global outsourcing of automotive parts has increased and the competition with domestic and foreign companies has intensified. Nevertheless, employees want to be content without great change within the scope of current business, and they do not intend to improve skills or share knowledge any longer. To get over such difficult circumstances, it is necessary to extend research, development, and technical ability. It is no doubt that there were passive learning activities to communicate the existing skills by means of conventional workplace learning. To maintain corporate competitive edge, the company sought plant automation which the Labor Union was against. In case there is any difficulty in automation, the management planned to move the plant to a third country. For fear that their jobs would disappear due to automation, employees, who engaged in their own jobs for a long time, were actively opposed to automation. The learning organization project was pursued in such situation. The management and the labor union agreed on the learning organization project with each other, and they began to implement ten types of programs, inclusive of the learning group activity. First, the best learning space was constructed; outer consultants diagnosed organization and consulted learning needs, assessment, and how to operate learning groups. In addition, OJT manuals were developed, and mentoring, learning leave, prizes for distinguished learning examples,

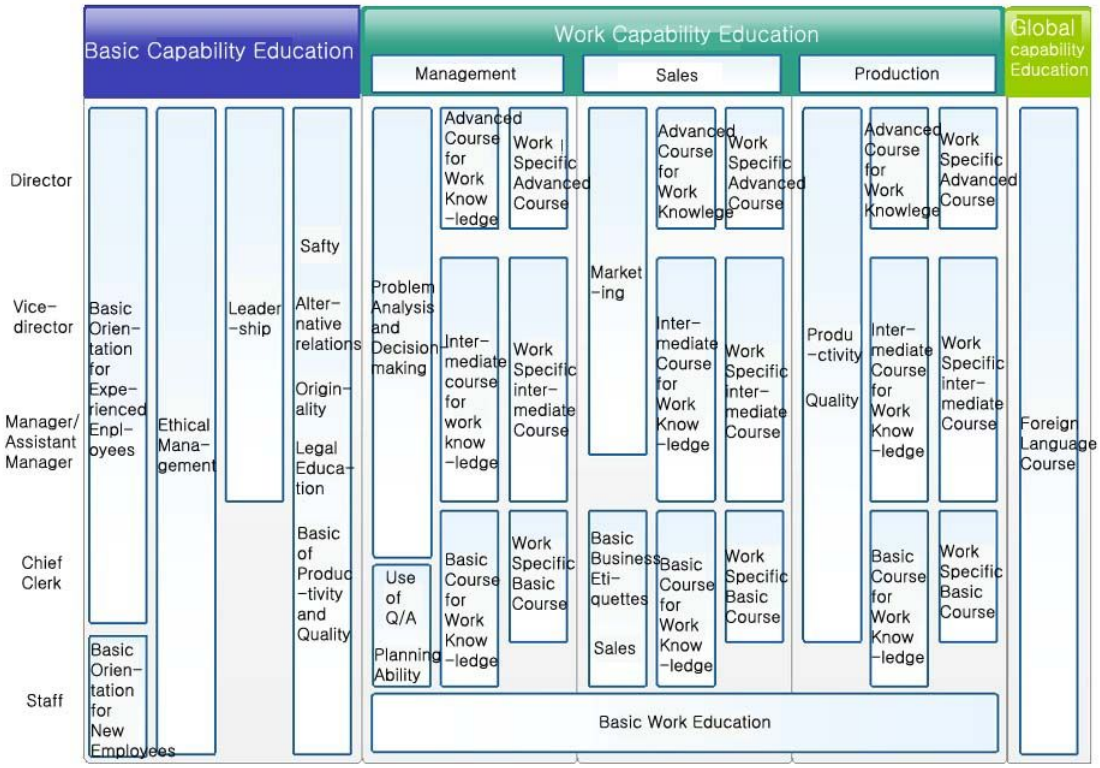
etc were introduced. A learning group is made up of 5 - 7 persons, a common learning subject was selected, and team meetings were to be held one hour or longer a week. The management also supported the activities of learning groups. Most of learning content reflected the understanding of machine facilities necessary for current jobs, the quality control (QC) for improving error rates, and other topics.

An example of a learning group shows group activities and its results. A learning group was made up of a total of 6- 8 persons: two management members, two engineers, two production employees on the spot, etc. Learning contents were the understanding of press machine facilities and disorder prevention, focusing on machine operating principles and prevention of malfunction. First, machine operating principles were learned under the guidance of engineers. For more than 20 years, workers operated without knowing machine operating principles, and thought of themselves as operators supplementing machines in the dangerous operating environment. Understanding the principles, workers experienced a great change of viewpoints. First, they came to know that masters were not machines, but workers themselves. Such change of recognition helped workers to take an active attitude and actively use the implicit knowledge accumulated through experience. They understood how much their field knowledge helped to solve the problems of their colleagues, orient new employees, and further manage a company in the process of documenting the know-how accumulated through workplace learning and presenting it to their colleagues. In this process of empowerment, workers reevaluated their own learning abilities and underestimated values; they thus sought to function as able and prestigious fathers for their children at home, as well as responsible citizens. The understanding of machine operating principles caused workers to greatly change their viewpoints. Such change had an influence on all the relations in the workplace. First, they sought to play a leading role, and they began to help new employees, using their career and knowledge. Additionally, they tried to understand corporate circumstances in general and establish cooperative relations, rather than antagonistic ones. As a result, an executive of the labor union was changed, which altered the direction of the Company: The labor union accepted a management innovation plan proposed by the management, and the management cancelled a plan to move the factory to a third country. The workers who participated in the learning TFP were promoted to supervisors and played the role of in-house instructors.

The example of Youngjin shows that workplace learning can cause changes in the basic attitudes, values, and social recognition of employees. It is necessary to be interested in

the transformation of frame of reference by empowerment as a new dimension of workplace learning.

2. Education system diagram (Formal education)



<Fig III-19> Educational system(formal education) diagram of Youngjin company

In-house instructors of Youngjin perform basic skills training which empowers new employees to grow accustomed to knowledge and the basic skills required of organizational members. The formal education is greatly divided into a basic capability education and a work capability education in accordance with position. The basic capability education is composed of basic safety, ethics, leadership and work-related laws that offer membership to employees; the work capability education is composed of management, sales, and production. Foreign language knowledge is essential for the advance into foreign markets. Foreign language education is mostly carried out on-line. The formal education is supplied to regular employees, not irregular ones.

The establishment of Youngjin's education & training system began under the recommendation of the consulting team for the learning organization project. As the number of employees exceeds 100 at a small enterprise (where all employees know

each other), the demand grows for functional expertise and the education formalized in terms of organizational management. However, the current system of formal education & training imitates the basic structure of large enterprises, but it is not properly carried out in practice. This is because educational conditions are not as well equipped as in large enterprises. The management also believes that such education & training has little to do with the reinforcement of core capabilities. However, it is expected that investment will be increased in preparation for the expansion of organizational scope.

3. Specific Methods for Applying Workplace Learning to Skills and Strategic Importance

A. OJT Mentoring

Youngjin has OJT manual education carried out in a way that duties are taken over from senior employees by new ones within twelve months of employment. Employees can learn implicit knowledge and skills by engaging in practical work, and they grasp their own duties in about one year. Such a system is very effective, since the concretized concepts of mentor and mentee are applied to the existing work transfer method. According to the system, a mentor should be in charge of complementing the deficiencies of a mentee, which has led to the expansion of the recognition that a mentor is also responsible to some degree for the work ability of a new employee. After all, the system turns out to be greatly effective in the work education for new employees.

B. Learning Group Activities

Significant improvement has been made of the knowledge and skills used for practical work, as various employees have participated in learning the subjects of learning groups, sharing knowledge and experiences. In addition, as the collected results of learning activities have been transformed into teaching materials, it has been made possible for employees to quickly respond to problematic situations that take place at work. In such circumstances, informal education is performed and personal skills are also improved.

C. Strategic Importance

Shift working has been made possible by learning group activities and workplace learning. Employees can learn a variety of duties by means of learning group activities and workplace learning. So, in case of a vacancy at work, any employee can work as an

alternative worker. Also, by experiencing various duties, they can understand their duties from various perspectives, thus improving their abilities to solve problems and handle work. Furthermore, shift working allows them to experience changes in their repetitive and monotonous work environment and also reduce stress at work.

Knowing the parts and operating principles of the devices they manufacture, employees can have a high level of understanding and take pride in their jobs. Thus, they previously felt subjected to the machines they were in charge of, but they can now gain confidence in their work by dealing with the machines in a subjective way. Thus, employees make efforts to learn how to operate devices more effectively. As a result, the devices are improved in an effective way, thereby leading to the improvement of process.

The learning organization project, introduced in order to strengthen workplace learning, has resulted in the reduction of three hours in daytime work time, 8.8 % in industrial disaster occurrence, 46 % in retirement rate and some 16% in inferiority rate. In particular, the reduction in daytime work time is judged to derive from the improvement of productivity.

4. Differences between the Technical Development by Formal Learning and the Skills by Informal Workplace Learning

A. Technical Development by Formal Learning

The formal education is carried out in terms of basic work, leadership, work capability and foreign languages on line and off line, as well as inside and outside the company. Such education is mainly offered in the form of collective lecture, and deals with content related to the skills and knowledge in general, rather than content related to field work: (Ex.) Course for process management ability improvement, course for leadership fostering, course for English, course for Excel/ Power Point, etc.

Such education & training shows an effect of consolidating employees' normal work capability and learning ability, but it has little to with specific projects, so does not easily lead to results. However, the development of general skills does not only strengthen the capabilities of employees, but the trust in the company and the positive attitude toward the management, since the company makes efforts for the development of employees.

B. Skills by Workplace Learning

Youngjin's core competency is determined by the expertise of field workers; it is important whether they accurately understand the given drawings, heighten ' skills of the engineers who are constructing the press work system, lower error rates, or increase production. Hence, workplace learning is a major means to develop core capabilities, so informal, but normal.

At Youngjin, the skills and knowledge highly related to work have been improved, with work and learning organically connected with each other. In particular, the opportunities have been given to employees to share the know-how and experience related to practice. This has empowered employees to share skills and learn other duties, as well.

New employees are given the OJT education using manuals by taking over knowledge from senior employees for one year. The manuals were systematized in 2007. The mentors using them have been able to communicate their skills to their mentees more systematically and accurately.

The workplace learning on basic jobs is also offered to irregular employees, but it is small in frequency, as compared to rates of occurrence among regular employees.

5. Core Issues to Implement and Promote Workplace Learning

A. Requirements for the Applicability of Current Jobs and the Skills Applicable to the Field

Comprised of general theories and skills, the formal collective education performed outside does not have many things applicable to the workplace. 10 % or less of the education committed to outside institutions is applicable to the workplace. It is necessary to customize basic and generalized education content to the workplace in order to enhance its applicability. This involves considerable effort and expertise. However, it is possible to immediately apply the content acquired via workplace learning to work. Connected to the theories acquired from formal education, workplace learning enables employees to acquire the know-how and skills required for work performance.

B. Individual Ability Development by Learning

After participating in the learning organization project, employees arrange the content they learned. They are awarded prizes at the competition for distinguished learning groups and recognized by other colleagues, using the content. In addition, the content is

kept as reference material, which contributes to the change and improvement of the company, thus giving employees a sense of achievement. Such satisfaction leads them to change their way of working at the company. At an interview, an instructor said, "**Employees are positively changed in facial expression and behavior, and they actively take part in dialogues with colleagues. In addition, they feel confidence in the company and senior employees enable them to learn the things they want to learn**." In the past, employees remained stagnate for a long time, but they recognized the necessity and effectiveness of self-change after participating in the activities of learning groups,; they thereby took pains to change themselves, and they have come to learn together , thus revitalizing workplace learning in the company.

C. Sharing of Various knowledge

At the time of organizing the learning groups, group members are formed, regardless of their respective duties, thus making it possible for the employees with different backgrounds to communicate with each other. Thus, they come to share the skills and implicit knowledge various individuals possess. As a consequence, they acquire the knowledge they did not know in the past. As they get acquainted with knowledge from different sources, they can improve their work capabilities. This tempts them to be continuously interested in participatory workplace learning. The lessening of defective proportions is the most important result from such learning. The proportion decreased by 28 % in 2007.

7. Perspectives toward Workplace Learning of Employers and Employees

A. Perspective of Management

In the current environment requiring change and innovation, workplace learning provides employees with the opportunity to develop their own capabilities and grow together with the organization. In addition, workplace learning allows employees to share knowledge in the organization and revitalize teamwork and communication. Youngjin has so many jobs requiring high levels of skill that workplace learning is much more necessary than the formal education done outside. Hence, the management is willing to invest more in developing the workplace learning that improves the abilities of employees and allows them to distribute and share their skills. As the most

critical problems are settled and results are visibly reaped the process seeks to expand the workplace learning continuously.

B. Perspective of Labor

The activities of learning groups help employees understand that they, along with their company, can grow together. Accordingly, employees foster their work capabilities by joining such learning group activities; they contribute to the improvement of process and the reduction in cost by making various proposals. As workplace learning increases the understanding of work, employees take pride in and feel confidence in their own jobs, which leads them to be more faithful to their duties. However, when overburdened with their assignments, they sometimes feel stress between duty and learning. As the increase of learning time leads to the reduction in personal time, they ask the management to assure them of personal time on an institutional basis.

8. Problems and Hindrance Factors of Workplace Learning

The OJT education has no sufficient systematic manuals regarding the duties exclusive of the OJT for new employees. In order to develop OJT, it is necessary to explain manuals on a systematic basis, but expertise is required to arrange informal knowledge. When an expert operator retires, it may lead to the interruption of all the work on the spot and call for new workforce education.

By complementing the personnel management system, it is necessary to connect the learning results of employees to performance rating. Older employees, or female employees busy with family work, lack in active participation in workplace learning.

At the beginning of learning, significant results were reaped by the mere sharing of ordinary ideas between experienced workers and their colleagues, but they reached their limitation in two years, since the knowledge so easily available got drastically drained. In order to elevate the level of learning, it is necessary to apply theoretical knowledge to workplace learning. However, this requires a considerable amount of time and effort to learn scientific ways of thinking, mathematical statistics, and engineering knowledge. At the moment, the attempt is made to introduce 6 Sigma.

9. Benchmarking Factors for Distinguished Examples

Youngjin participates in the learning leader networking of the Daegu-Gyeongbuk region. Thus, the instructors in charge of workplace learning meet each other on a regular basis, sharing information with each other. Such activities allow them to secure human networks and benchmark the workplace learning methods and efforts of other companies.

The Company awards prizes for excellent learning activities and pays premiums. Such support is based on the evaluation of learning group activities and individual abilities. This contributes to the creation of the atmosphere in which employees are fairly treated by the organization. As a result, employees and groups make more active efforts to learn more advanced skills. In a word, such a reward system motivates all the groups and employees to achieve higher goals and it thus accelerate the growth of the company.

Besides, it is especially noteworthy that Youngjin's CEO is highly interested in workplace learning. In order for learning leaders to support members effectively, the CEO is asked to entrust the leaders with authority and create the atmosphere and environment favorable for learning. Youngjin's workplace learning can be referred to as an excellent example of appropriate support for distinguished activities. The CEO's great interest holds the continuous interest of employees in learning and adequately improves the learning environment.

10. Influences of Governmental Policies on the Development of Skills by Workplace Learning

Based on the learning organization project for SMEs of the Ministry of Labor, Youngjin has introduced the system of learning groups, established learning spaces, and implemented the support of excellent activities and the guardian system.

By constructing learning spaces, the Company provides employees with the environment in which they can carry out learning group activities or individual learning at any time, if they want to do so. The learning group activities have not only strengthened employees' work capabilities, but they have improved productivity and process. Employees can learn the knowledge and know-how available for work and apply them accordingly. Such knowledge and know-how are difficult to acquire with the existing collective education, and they contribute toward the enhancement of work expertness. The support of distinguished learning activities encourages employees to learn more, and the guardian and OJT systems offer skills and knowledge to new employees and members. The knowledge and technology accumulated via workplace learning develop individual capabilities, as they are applied to the field; they are

dispersed in the organization, as they are shared by members. They are registered at the KMS and are used by employees, if any problem occurs.

11. Role of the management for the implementation of Informal Workplace Learning

The management has induced employees to voluntary learning activities and thus encouraged them to share knowledge. To this end, it has executed a learning mind education, explaining the necessity of learning to employees and encouraging them to regain their confidence in learning. In addition, it has constructed learning spaces and provided the environment which is available for learning at any time during or outside working hours. Furthermore, it has increased the existing learning group activity time from twice a month to four times a month.

When organizing learning groups, the management has mixed office and field workers with each other. It has allowed them to select subjects autonomously, thus encouraging them to study more positively and actively. In every class, learning process has been evaluated using the learning evaluation table. The management has established a system of awarding one hundred thousand (100, 000) won to distinguished employees based on the evaluation of learning results and the above results at the time of the intermediate and last reports for learning group activities.

7. DSP Co., Ltd.

Introduction

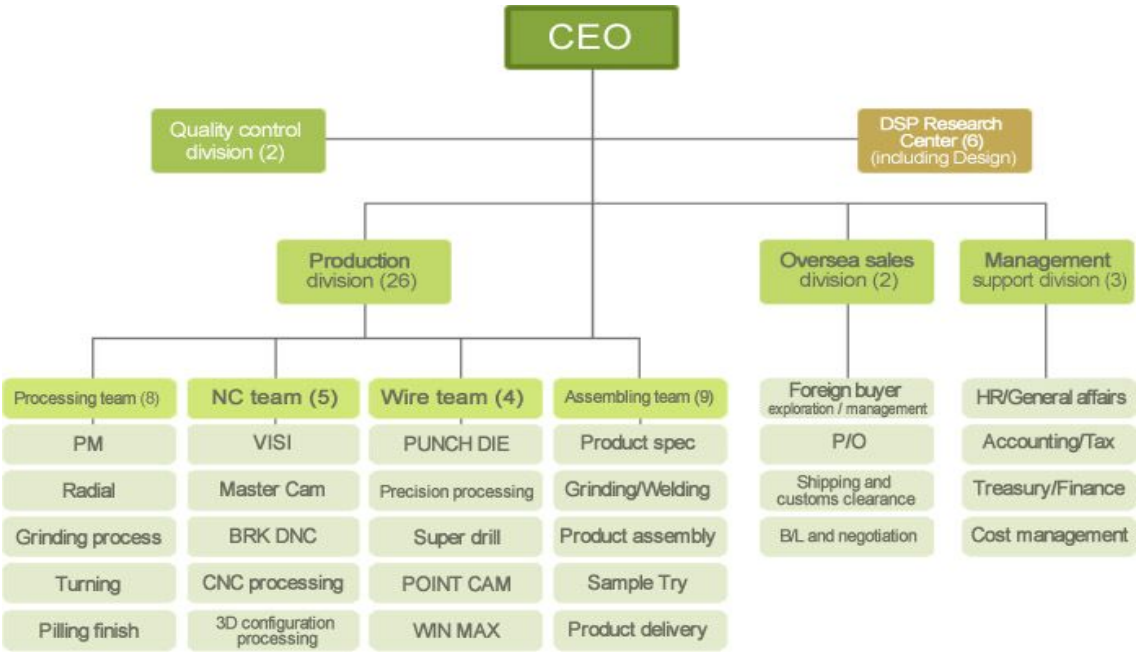
The example of DSP shows the employer of the SMEs that the employee's ability development cannot be well done unless he becomes interested in workplace learning, and what is required in the process. As the management confirmed the potentials of the employees when the new workplace learning was introduced by the leaders, the passive manager was changed into the active supporter. The employer entrusted the powerful right to the learning leader, so that the learning leader could exercise the actual decision-making. In terms of the SME's characteristics, the workplace learning could hardly be provided because of the lack of human resources competency and the financial conditions. But, DSP received the outside professional manpower and the financial support by utilizing the government's learning organization business, so that DSP could arrange the workplace learning system effectively. As performance improved, organizational coherence was strengthened because of smooth communication among employees in learning group activity. Because the barrier-less organizational culture was formed between teams or divisions, the activity of sharing knowledge was facilitated. To support the employees' learning activity, various reward systems were arranged. This reward system encouraged the employees' will to learn and enabled the company to implement the lifelong learning system as constant learning occurs. Worth noting is how important the learning leader's positive attitude and leadership are in the workplace learning. In order to systemize the workplace learning and make the performance-oriented business, the SME needs to build up the human resources system which effectively supports the learning.

1. Relationships between Corporate Summary and Necessity for Workplace Learning

A. Corporate Scopes, Business Types and Types of Products/Service

DSP was established with the name of Dae Ha Precision in 1993, and it is a mold-specialized processing company. After converting into the incorporation of DSP in 2002, DSP has grown to be a company with 300 million won capital stock and 39 employees. The major work of DSP is developing and manufacturing the press mold of vehicle and electronic products. DSP has exported the products to Japan, Indonesia, Malaysia, and other countries. DSP is organized by the production division of processing/assembling

parts, overseas sales, management support, quality control, and R&D parts' research center.



<Fig III-20> Organizational map of DSP Co, Ltd

B. Relationships with the Necessity for Workplace Learning

When DSP applied for the learning organization support business, there was keen competition affected by the worsened market environment. As China's mold technology was developed, domestic companies had to produce the high technology-oriented products to maintain competitiveness in the market. Also, the sales were decreased by the Japanese Yen and weakened US dollar. Inside DSP, skilled engineers evaded transferring their skills to others by worrying about the weakness of their own competitiveness. The external education and training's content were not delivered due to insufficient time and space. Most of the labor union and management recognized the necessity of human resources development, but they didn't understand how they had to perform the learning activity. Also, field education and training were not provided. In particular, the new recruit education was poorly provided, so that the new recruits needed a long time to adapt to the company's environment. Finally, the lack of work competence resulted in the increase of defective goods and increasing customer complaints.

<Table III-12> Employees' learning needs

Classification	Degree of request	Degree of performance	CAP	Importance (management)	Importance (Learning group)
Accuracy	4.33	2.92	1.41		
Responsibility	3.61	3.11	1.50		
Challenge	4.75	3.08	1.67		
Customer management	4.00	2.5	1.50		
Loyalty	4.00	2.92	1.08		
Safety activity	4.67	3.00	1.67		
Work ethic	4.50	3.33	1.17		
Facility / Materials handling	4.13	2.74	1.39		

The above table describes the DSP employees' learning needs. The table shows the need for individual's competence development, given the high level of requests by employees for basic competence and low performing levels. The analysis of individual learning requests provided the motivation to that enable the employees to recognize the necessity of learning.

2. Specific Methods and Strategic Importance of In-house Workplace Learning

A. Leaning Group Activities

DSP took advantage of the opportunity to help employees understand and share the learning organization business before executing the learning group activity. DSP held several business presentations and collected the employees' opinions. In this process, there was enough chemistry to form the learning organization business. After that,

through the rapid progress of the business and the learning group activity, DSP granted continuous opportunity for learning activity among the employees. At the beginning of the learning group activity, the company provided the opportunity to recognize the strengths and weaknesses of the competency by analyzing the individual competence of the learning group members. Even when the learning subject and content were selected, the company allowed the group members to determine them, not the company's unilateral request. So, the company improved ownership about the learning, and strengthened the active participation of employees. By conducting education about effective communication and learning methods among employees in the early activity of the learning group, the company helped empower learning group.

Figure 1).
Learning Group Activity

Figure 2).
Mold Fabrication Process

Figure 3).
Guest lecture by outside instructor

<Fig III-21> Pictures of workplace and learning environment

<Table III-13> 2 learning groups' group name, learning subject and performance

Name of Learning Group	Learning Subject	Learning Performance
Mold development group	● 2006 : 3D modeling learning and design competence strengthening ● 2007 : Mold design and structure education & system specification	● Proposal activity : 7 cases in 2006, 6 cases in 2007 ● 3D model and 2D design education, Specification of drawing description method
Machining center group	● 2006 : Decrease in CAM and M/C process defect ● 2007 : Processing method research and CAM program education	● Proposal activity : 19 cases in 2006, 7 cases in 2007 ● Reduction of tool purchasing costs, Decrease of work piece defect

In the above table, the mold development group developed the unified system of description method, based on learning and experience drawn from description; this helped workers handle the problems of defects in processing and assembling because the design team members used a different method of describing the signs. After that, the accuracy of products was improved by utilizing the unified description method, so that the defect rate

The machining center group had the problem of the tool's high consumption rate and irregular processing quality when the suitable data values were not used; the tool's cutting and processing speeds were not uniform before the learning group activity. After conducting the workplace learning with the learning group activity, unsuitable data values could be replaced with optimized data values. In this way,, the consumption of cutting tools could be sharply reduced to the 1/3 per month, and the costs of monthly 1.8 million won, and yearly 21.6 million won could be saved.

B. Development of OJT and Mentoring

DSP wrote the OJT by documenting the content of the actual work by each manager, and then it utilized the manual for the OJT for the new recruits. The contents of OJT are divided into the basic education and the job education. The basic education is conducted for the new recruits, and it contains the company introduction, industrial safety education, OJT and a practice of five principles (clean-up, arrangement, sweep, purify, form a habit) system. Five principles were used as the important tool for workplace innovation, and the employees' active participation was required. It was composed of the OJT to make the new recruit apply it conveniently. After the OJT education, the new recruit directly records the information in the education log,, and the manager notes the learning results of the new recruits through direct instruction..

Through the systemization of this OJT education, efficiency in learning could be improved. Also, the manager directly reviews and comments on the education results of the new recruit. That is, the new recruit's adaptability to the work was faster, and it helped prevent accidents. As the new recruits receive the OJT education suitable for the company's situation, their work ability and productivity can be improved. As the friendship with the team members is formed during the field training, they can rapidly adapt themselves to the company.

C. Contribute space for learning activity

The implementation of learning space is included in the special support of the SME learning organization business previously explained. SMEs don't have the space required for various learning activities, such as meetings and reading. So, it has been supported.

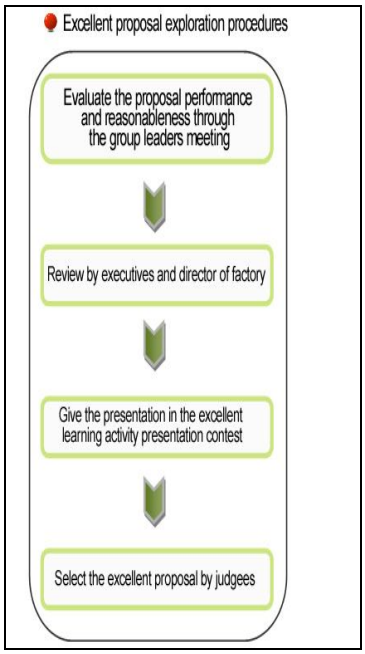
Employees could concentrate on the learning without the machine's noise while operating the learning group and DSP could obtain the basic space where all employees could receive group education. After obtaining the space, DSP installed the equipment (laptop computer, beam project) and an Ondol floor conducive for natural and friendly learning. After that, DSP satisfied the employees' desire for the learning by placing work-related books and various recreational reading as requested by division. Since creating the learning space, the learning group members have spent 144 hours annually in the learning space. For 24 hours per year, group education has been provided for all employees of the company. Also, the learning space functions as the employees' library, and so it has played an important role in recognizing the importance of learning and forming the learning atmosphere in the company.

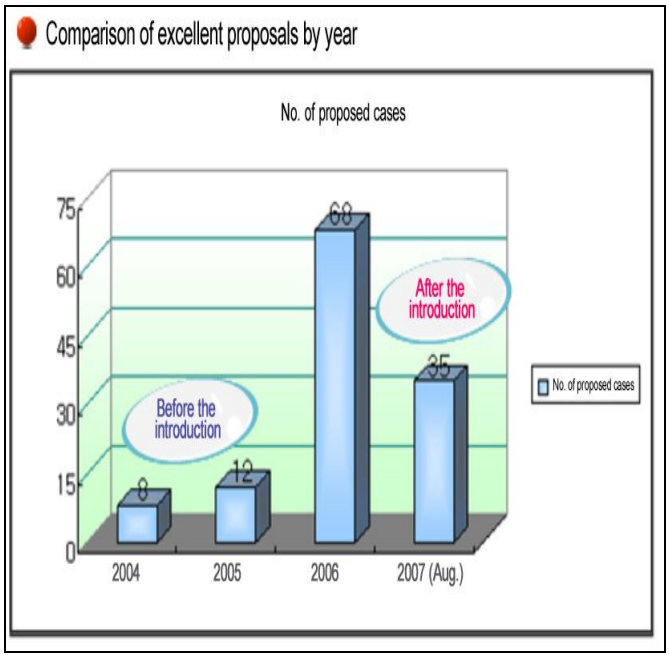
Figure 4). Image of implemented learning space

Figure 5). Image of using the learning space

<Fig III-22> Learning space in DSP Co., Ltd

D. Reward for Excellent Proposal





DSP has evaluated their employees' propositions and rewarded the best proposal. The proposed content is evaluated by the executives and the director of factory. When it is selected as the best proposal, the employee making the proposal gives the presentation in the excellent learning activity contest. Giving the presentation that summarizes the learning result in front of the management and all employees is a meaningful experience that confirms the presenter's learning ability and recognizes the benefit to the company. When the presenter is selected by the examiners in the presentation contest, he is awarded. The proposed cases are mostly the results by the learning group activity that largely increased after the introduction of the learning organization business.

3. Differences between the Technical Development by Formal Learning and the skills by Informal Workplace Learning

A. External Instructor's Lecture and Education Outsourcing

DSP has provided education by inviting outside instructors for onsite education when necessary. In the education program, there is power-point and Excel training for improving all employees' joint computer and information skills. Also, the company has conducted the off JP, and it has allowed the employees who demonstrate excellence in learning group activity to have off JP priority and receive off JP. Also, DSP has

allowed foreign companies to be visited by employees with good proposal activity and learning activity participation. In 2007, the company helped some employees receive training in advanced molding technology in Japan DSP employees returned to work and educated other employees about their experiences.

B. Skills by Workplace Learning

The most important role of the learning group activity is to recognize the problems occurring in one's job; improve work competency; and solve problems through the problem-solving type learning. By sharing knowledge and technology among the learning group members in the workplace learning process, all members' skills are improved, and it paves the way to improve general ability through the process of presentation and discussion. Also, under the guidance of the external instructor, employees can acquire outside expertise. Based on learning content, the employees attempt to find solution to their problems, and the knowledge and skill gained from the process rapidly accumulate among the employees.

5. Core Issues on the Implementation and Promotion of Workplace Learning

A. Role of Leaders

DSP made the employees recognize the necessity of learning, and the role of the learning leader was large in teaching the learning method. The employee selected as the learning leader was employed as a female office assistant, and she was engaged in the office job-related work for 20 years. Her career and work ability were recognized. After being selected as the learning leader, she appreciated the necessity of workplace learning and conducted the learning activity passionately by introducing the government's learning organization business. Also, she stimulated the management's constant interests and supports; she also enabled the active participation of employees by persuading the CEO and employees of the importance of performance and workplace learning and training. She played the leading role of communicator inside and outside the company, as she exchanged opinions with the learning group leader and members, Industrial Corporation, and external consultants for the continuous development of the learning organization. She participated in learning group activity, handling the aggressive attitude of the learning group members, and she showed initiative to employees in serving as the learning leader. She motivated the employees to

learn hard. Finally, her ability and performance were recognized by management through the above efforts, and she was granted the opportunity for overseas training.

B. Preliminary Consulting

In the organizational change of the SMEs, the support of the outside expert plays the important role. The SMEs internal human resources are not abundant and so it has difficulty in the change. Accordingly, DSP implemented the learning organization system by receiving the support of preliminary consulting, one of the learning organization businesses. Consultants implemented the learning organization system and the related system reflecting the most necessary things on DSP, and they helped the company improve the professionalism and maximize the competency of employees by making all employees understand the learning system.

Consultants analyzed the learning environment, learning culture, and the organizational culture of DSP through the questionnaire survey and field interview. Then, based on these techniques, they analyzed the problem and derived the improvement measures. As the result of analyzing the problem, DSP was not ready to execute the learning organization business. In DSP, there was the lack of a definite activation method and insufficient recognition of employees in the learning organization. Accordingly, the consultants clarified and informed the scheme of designing and operating the learning organization and the policy of actual activity. The support of the external expert changed the education system of DSP effectively through the help of internal learning leaders and the CEO, and it could facilitate the employees' learning activity by settling the learning culture.

C. Employee Learning Leave System

DSP has provided the learning leave system for the employees who actively participate in the learning activity and contribute to the company's development through the excellent proposal activity; Then DSP has given employees the opportunity to learn advanced technology through visits by select employees to foreign companies. In 2007, the company sent the best employees to Japan's mold company to inspect the advanced technology for growing the Japanese market, the target market. After that, employees had satisfactory communication with the Japanese company, and they derived beneficial results, successfully negotiating a new order for 10 million Yen.

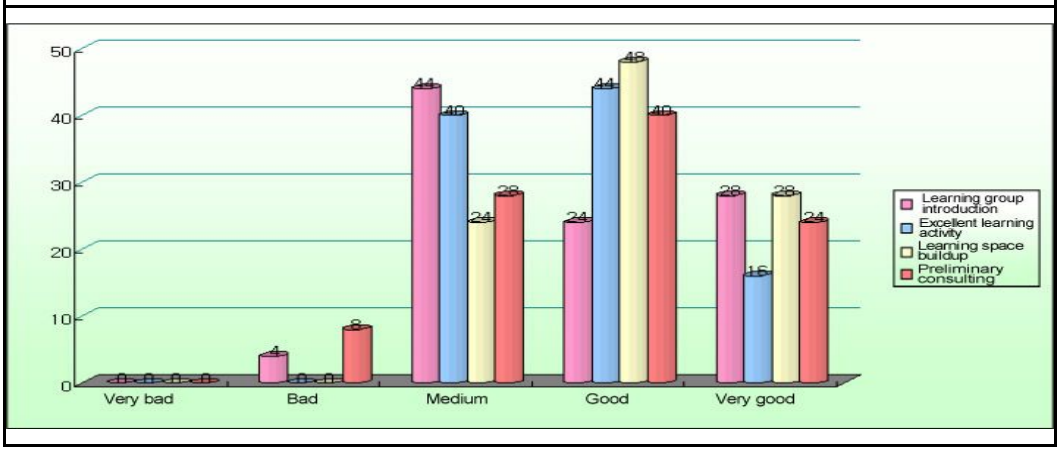
6. Recognition of Employers and Employees on Workplace Learning

A. Recognition of Management

Because the employer was more interested in the support of SME learning organization business, the learning organization business could start. In particular, the employer thought that he could make the space used for the learning space implementation free of charge. In order to participate in the business, the management and the labor union signed a document pledging that they would conduct the business actively through the collaboration, and they stated the compulsory roles of the management for the learning. Also, the passion and the new potential of employees, especially the learning leader in the business process, helped the employer o recognize the importance of human resources cultivation. Through it, the company could start to actively support the learning activity. As the management took an aggressive attitude, general employees became interested in learning. It played a decisive role in arranging the learning environment and granting the learning motive to employees through conducting the learning group activity, OJT program, and excellent learning activity support.

B. Recognition of Employees

Classification	Degree of request	Degree of performance	CAP	Importance (the management)	Importance (Learning group)
Problem-solving	3.86	2.43	1.43	◉	◉
Goal management	3.83	3.00	0.83	◉	
Relation formation	4.55	3.09	1.46		
Communication	4.42	2.67	1.75		◉
Cooperation and teamwork	3.92	2.92	1.00	◉	◉



<Fig III-23> Degree of request for education before the execution of learning organization business,

<Fig III-24> Education satisfaction after the execution of learning organization business

As the result of investigating the employees' requests for education by the consulting company (before the execution of the learning organization business), there was the big gap between the expected and present levels. In particular, the request for "the social networking" and "interpersonal communication" was high. It showed that education for building teamwork and problem-solving ability was required.

While participating in the learning group activity, employees tried to find a way of improving the shortcomings through discussions with group members. They became gradually interested in their own work. They felt successful as their proposed improvement was accepted and the shortcomings were actually addressed. They were rewarded. Through this consecutive process, employees' passion and interests in learning were improved. Also, the satisfaction with the learning reached higher levels.

7. Problems and Hindrance Factors of Workplace Learning

Currently, DSP has conducted the learning group and the OJT in order to satisfy the internal field-centric education course, but there is the lack of professional manpower in education. The learning leader and the manager have been in charge of the learning group and the OJT. However, there was an insufficient plan for cultivating them as experts and cultivating the educational expert constantly. DSP needs to plan a strategy for cultivating the internal education expert through educating the internal expert and the internal instructor system.

Also, because the company is located in a local region, there is a limited network for the utilization of the professional instructor and the information exchange. Major companies are located in Seoul and the knowledge service companies supporting them are also located there. So, the local companies' knowledge service costs are increased. Because the local consulting companies' level is low, the service costs largely increase when the knowledge service company in Seoul is used. As the knowledge industry has developed, the related core companies and the support service companies tend to be located in more narrow areas. Companies in other areas have received the relative disadvantages.

8. Benchmarking Factors of Excellent Examples

A. Reward System for Learning Activity

DSP has stimulated the employees' learning activity through a variety of reward systems. Firstly, DSP grants the award by selecting three good learning employees each month.

Also, DSP gives the free Jeju-do trip ticket (3 nights & 4 days) to the best learning employee each year, and it has induced all employees' participation in the learning. Secondly, DSP has granted the priority of outside education participation to the employees who actively participate in the learning group activity. In 2007, DSP selected total 12 good employees and gave the opportunity of the outside education to them. DSP made them acquire the certificate. In other words, the company has provided the various supports. Finally, DSP provides the opportunity for foreign inspection to the employee who actively participates in the learning activity and contributes to the excellent proposal. In 2007, DSP selected the excellent employees and allowed them to tour a Japanese company three times. The arrangement of such various reward systems played a big role in improving the passion and motivation for the employees' learning.

B. Excellent Learning Activity Presentation Contest

DSP has conducted the excellent learning activity presentation contest to improve the interests and passion in employees' learning activity. Such activity inspires well-intentioned competition by each group and rewards the excellent learning group. That is, it improves employees' interests in learning activity.

For the excellent learning activity presentation contest, each group's learning leader must give the presentation with PT by explaining the learned content so that all employees can easily understand. When the learning leader gives the presentation, all employees can share various knowledge of their divisions, and this presentation is helpful in satisfying intellectual curiosity and extending the various viewpoints. Also, DSP empowers the team selected as the excellent learning group to constantly keep learning with proper rewards, as the company merits the selected team in front of all employees, and induces the unrewarded employees to improve upon their desire for learning.

9. Influences of Governmental Policies on the Development of Skills

Introducing the learning organization business firstly in 2006, DSP was focused on forming the learning atmosphere and arranging the framework of the education system during the first year. As DSP provided the OJT with the operation of the learning group in 2007, the employees' job ability was improved. Also, the excellent learning activity presentation contest and diverse reward systems played a large role in keeping the learning because the employees' learning participation and satisfaction improved.

Since then DSP, which had the insufficient recognition and operation of workplace learning, has received the government's support business,; DSP now could build up the institutional framework to execute workplace learning, and facilitate the employees' lifelong learning.

10. The Role of Managers for Execution of Informal Workplace Learning

The example of DSP shows how the SMEs employer's dismissive attitude to the employee's competence development becomes aggressive through the new attempt. At first, the employer was not interested in the employee's learning and the learning organization business was introduced mainly by the learning leader. The employer wanted to receive the government's financial support so he agreed to participate in the business. But, in the learning progress process, the employer was surprised by the employees' passion and affirmative learning result. It turned the employer's dismissive attitude into the employee's competency. The employer entrusts almost all authorities relating to education to the employee selected as the learning leader, and he provided the supports. So, the workplace learning could be conducted effectively. In this process, DSP could introduce the learning organization business and build up systematic workplace learning through the provision of an external professional consultant's work.

8. Yeonwoo Co., Ltd.

Introduction

This is a case of the construction of the workplace learning system, based on OJT, to develop and spread workers' skills for a company where the skills of production line workers are core competency for the improvement of competitiveness. The company has introduced evaluation, reward, and personnel management systems that support workplace learning activities to recognize the value of production workers' skills, so that it could effectively organize and use field knowledge as a tacit knowledge. To this end, it applied for a government-funded learning organization project, and it organized it into 10 programs.

The production of an OJT manual was led by field employees to capture and organize tacit knowledge in the field. However, the OJT process was not yet been fully constructed, and there was a limitation on the systematic performance of OJT education. It is the leading company in producing and using an OJT manual, appointing high skilled operators to in-house instructors for the organization of OJT.

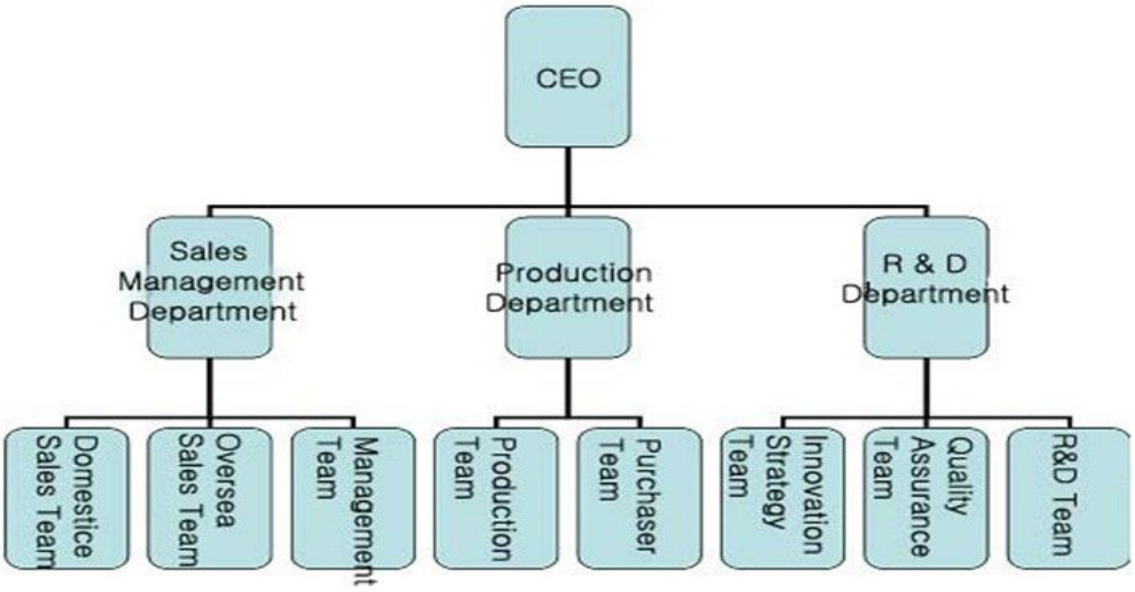
Yeonwoo Industrial Co., Ltd. is a small but strong global business. It shares 38% of the local market and delivers its products to more than 30 world-famous cosmetic companies. It has constructed an educational training system similar to those of large companies, seeking future extension to overseas markets. This medium- and long-term investment intends to secure core competency by fostering manpower at an early stage and showing that the company has a great concern for employees' self-improvement. It is effectively coping with problems innate in government projects by adjusting the learning organization project to business needs.

1. Corporate Overview and Necessity of Workplace Learning

A. Scope and Type of Company and Types of Products/Services

Yeonwoo Industrial Co., Ltd., which was founded in 1983, is a cosmetic packaging materials manufacturer, with its annual sales reaching 59.9 billion won and its employees numbering approximately 478. It developed a dispenser pump for cosmetics for the first time in the nation in 1990, and the pump has now become its main product. Yeonwoo's core technology is to develop various new technology products and highly sophisticated pumps. It has a vision to become one of top 10 cosmetic packaging materials manufacturers in the world by increasing overseas market shares in the future.

The company is largely composed of sales management, production, and R&D divisions. Specifically, the business management division is made up of a domestic sales team; an overseas sales and a management team; production division; a purchase team procuring materials; a production team in charge of assembling; and an R&D division, with innovation and strategy, quality assurance , and research and development teams.



<Fig III-25> Organizational map of Yeonwoo

B. Necessity Workplace Learning

Yeonwoo hires many workers for manufacturing/assembling products in production line, which requires education on the production line after hiring new workers. Even though they worked for those companies producing similar products, they should learn new production technologies fit for Yeonwoo's know-how and features of products if they are admitted. This is the same for management positions, and new management staff is sent to field for one week after admission, so they can understand field jobs and be familiar with Yeonwoo's corporate culture, work system, and work process, which requires workplace learning for new members.

The company's first core capability is to produce products without any defects within their agreed delivery date. Since it has all of process for producing materials in house, it can make the delivery. Furthermore, it meets customers' demand for samples in 3 days since it has a separate sample process. This is an important capability against its competitors. Meanwhile, the production of vacuum pumps requires a perfect assembly of several small parts because of the nature of cosmetic containers, which causes a lot of

defect in finished products. To prevent such a loss, Yeonwoo keenly needs the proficiency of workers who produce materials and assemble parts as a final process. Such proficiency is not accomplished in a day, but takes a long time, from a few months, to a few years. For example, in manufacturing plastic materials through injection, the same machine produces totally different products depending on workers. Thus, skilled workers with a great experience and know-how are needed. Workplace learning plays a very important role in securing such skilled workers.

Yeonwoo's second core capability is to develop more sophisticated products by innovating their structure and mechanism in R&D, and new pumps based on various ideas. At the same time, it designs, manufactures, and improves products relevant to customer demand. Employees, responsible for the development of products, perform their jobs by project, and workplace learning is very important for them. They solve problems based on their experience, know-how, and knowledge while implementing their projects, in which know-how and tacit knowledge of members are naturally shared, and learning takes place. The more learning, the better the design and the better the product, which significantly contributes to the improvement of Yeonwoo's competitiveness .

2. Specific Methods for Applying Workplace Learning to Skills and Strategic Importance

A. OJT for New Employers

Yeonwoo uses OJT program to train employees as scheduled. For example, new workers in production line are provided OJT training by responsible officers for 30 minutes starting at 8 a.m. every morning for one month after admission. Employees from the sales, quality, production and marketing divisions are provided 2-week OJT training, while ones from the innovation, management, and development divisions are provided 4-week OJT training. Training is executed based on manual materials, of which basic OJT parts are now provided for new employees, but for which the OJT program/manual for job improvement will be developed and introduced by position starting in 2008.

<Table III-14> Constituents of OJT and its details

Constituents of OJT	Details
Organizational Management	Personnel Provisions, Employment Rules, Congratulatory and Condolence Leave, Dress Code, Accounting Relations, Administrative Relations, Environment, Etiquette Relations, Application Papers, and Checks Handling
Marketing	Marketing Basics, Ways to Business Activities, Sales Management (Documentation Excluded), Export Relations, and Business Manners
Production Management	Standard of Working by Line/Facility, Facility Inspection, and Group Activities
Purchase/Material Management	BOM[6], Purchase Process, Purchase of Materials, and Management of Business Partners
Quality Control	Quality Specification, How to Test, Import Inspection, Shipment Inspection, Process Inspection, and Analysis of Problems
R&D	Structure and Principles of Pump, Principles of Molding, and Basics and Rules of Design
Innovation Strategies	Business Introduction, Effect 100 Movement, ERP, Groupware, and Documentation Training
Common Training	The whole process from business activities to product shipment

OJT program enables new employees to understand their business at an early stage, improves business efficiency, and reduces turnover rate by improving their adaptability to organization.

B. Mentoring

Yeonwooh introduced the mentoring system so mentors could provide a job ability improvement training (OJT) to their students on one-to-one basis. Mentors and their students were organized into 14 teams by position, and they acted for 6 months. The goals of learning through mentoring were largely decided in relation to their jobs, depending on the learning requirements of mentors and mentees. Mentors provide their mentees with tacit knowledge, know-how, and skills, which they obtained through their experiences and jobs. In this process, mentees can be improved in work performance,

[6] BOM (Bill of Material): Material specification containing information on materials necessary for manufacturing a certain product.

and their adaptability to organization can be improved through their increased sense of belonging. In addition, mentoring enables individuals to present their visions, and it can reduce the turnover rate by improving their adaptability to organization and jobs.

C. Learning Group Activities

Yeonwoo, who participated in the learning organization project provided by the government in 2007, was made up of 8 learning groups with a total of 57 employees. Subject, team members, content, and time were all organized by the members themselves. For production workers, learning was largely provided during non-business hours, while for management, in the morning, at lunchtime, or business hours. One example of learning activities was the marketing team's role-playing conducted by an in-house instructor with a 24-year sales career. Students learned how to solve problems they might face in an actual situation. Such activities enabled employees to make a quick response to claims from customers, reducing customer complaints. Another example was Photoshop learning group, largely made up of overseas sales members. Before learning Photoshop, they had to manufacture them one by one to meet their request whenever customers wanted various samples. However, Photoshop learning allowed them to make a quick response to customers' requests, so that they could edit samples and change their colors through the use of the software. Finally, before learning PLC[7], if problems took place in PLC, the chief of the PLC section alone had to deal with those problems, since only he or she had knowledge of PLC structure. Thus, it took a long time to solve problems, and productivity dropped, as well. However, as the PLC learning group was organized and team members shared the knowledge of PLC, the ability of members to solve problems was improved. In addition, as they were also allowed to present ideas for performance improvement, productivity was highly improved, as well.

In the end, they could achieve improvement in performance of both the individuals and the organization through the activities of learning groups.

[7] PLC : Programmable Logic Control, General purpose control device which change existing control panel function to semiconductor device for control programs

<Table III-13> Learning Group Activities

Subjects	Goals of Learning	Number of Members	Estimated Performance
Improvement in efficiency of yield management and reduction in logistics cost through the learning of logistics and material management	Reduction in logistics cost and improvement in material yield through the learning of material and logistics management	8	- Reduction in logistics cost - Improvement in job satisfaction -Decreasing in inventory Reduction in material turnaround time
An increase in production efficiency by improving problems from inaccurate production schedule	Improvement in the hit rate of production plan through the learning of production management	6	Improvement in efficiency of production plan Reduction in time for preparation and replacement
Learning how to improve productivity by reducing waste of materials (loss/defects)	Learning of Toyota production system	7	Improvement in facility operation ratio Improvement in productivity Remove of waste in field

D. In-house Instructor System

Yeonwoo prepared an in-house instructor system to share individual employees' know-how with others. If applicants for in-house instructor positions prepare and submit their educational plan, the company reviews their suitability before it grants them instructor status. Instructors who made a teaching plan and provided teaching service are paid, and their performance is reflected in performance evaluation (100-200 thousand won per one class).

If employees with substantial experience and good performance in a relevant field are appointed as in-house instructors, their know-how and tacit knowledge can be shared with other members. In this sense, it is a very important system.

<Table III-16> In-house Instructor System

Qualification	⇒	Teaching Plan	⇒	Teaching	⇒	Evaluation	⇒	Payment
Application ↓ Review ↓ Approval ↓ Entitlement ↓ Issuing an in-house instructor certificate		Types of in-house classes ↓ Making teaching plan/textbook ↓ Review ↓ Approval		Making a teaching plan ↓ Making an execution plan ↓ Execution ↓ Making a teaching report		Reporting the completion of instruction ↓ Evaluation ↓ Applying to performance evaluation		Estimating ↓ Payment

3. Differences between Technological Development by Formal Learning and Skills by Informal Workplace Learning

A. Technical Development by Formal Learning

Yeonwoo is now providing an in-house/outside/qualification training in accordance with its annual training plan. Outside training is provided by institutions such as Small Business Training Institute, Korea Productivity Center, and Korean Standards Association. The training program is largely made up of production, quality assurance, and job-related matters for the management. Employees improve their understanding of jobs and their ability to apply it to field operations through such training.

It has also organized 8 groups to teach all employees information literacy 8 a.m. to 9 p.m. every day from late March to early November, based on learning subjects such as Excel, PPT, and Window. Such training contributes to reducing working time and enhancing working efficiency by increasing employees' office automation capacity. This program also intends to make employees effectively use KMS, which will be operated as of 2009.

In addition, it invites instructors from outside to provide education from various fields, such as character education, fire fighting safety education, and sexual harassment in the workplace.

B. Skills by workplace learning

Workplace learning is achieved through OJT, mentoring, the in-house instructor system, and learning group activities.

The learning of technical skill through OJT includes an emotional feature, which is impossible to attain through formal learning. For example, Yeonwoo's injection molding for plastic products produces different results, depending on who uses the machine, even though a certain data is entered into the same machine. This comes from the fact that each skilled worker has his own know-how for different situations, which is not included in theoretical knowledge. If one with an insufficient skill takes up the job, it can cause bad products and a loss for the company. Thus, it is very important for workers to share their skills with each other. Since such skills are due to Yeonwoo's very nature, working conditions, and know-how the knowledge cannot be attained through formal external training,, but only through onsite workplace learning.

Mentoring and the in-house instructor system are also designed to inherit their know-how and tacit knowledge from those who have worked at Yeonwoo for many years. Thus, they are more closely related to relevant business than those attained through any other formal education, and they can be directly applied to field.

Since knowledge and skills from learning group activities were attained also by sharing their own experience among field workers, they can be directly applied to field. Such knowledge improves business efficiency and activities, since ideas for the improvement of business performance come from the knowledge attained through learning.

4. Core Issues to Implement and Promote Workplace Learning

A. Learning Experience of Learning Group Members

Yeonwoo has engaged in various innovative projects, and team and group activities. It has pushed to develop new products through innovative development projects and improve the working environment to gain the government's aid for the improvement of the employment environment. Team activities were encouraged so members could learn how to solve problems. Employees experienced learning group activities, OJT, the mentoring system, and the in-house instructor system through the learning organization project that started in 2007. Such learning experiences removed the burden of learning from employees, and made them recognize the need for learning, this ultimately served as an opportunity to promote workplace learning.

B. Autonomy in Learning Group's Choice of Subjects

For learning group activities in workplace learning, members were allowed to select subjects for learning as they pleased. Employees could freely choose subjects that they

wanted and needed, which increased their participation in and satisfaction with learning group activities, promoting workplace learning.

C. Stipulation of In-house Instructor System

Yeonwoo stipulated the in-house instructor system to foster and use internal experts in relevant fields. Before the in-house instructor system was stipulated, the company had no systems to support in-house instructors, and employees did not volunteer to be in-house instructors. However, as the in-house instructor system was stipulated, employees were acknowledged in the company, and proper rewards such as instructor fee and manuscript fee, were given, which caused the in-house instructor system to be much used.

D. Incentives for Learning

Yeonwoo provides different pay increase rates, depending on an individual's capabilities, in the personnel system. Regardless of rank, individuals are graded depending on their capabilities, which greatly affect pay increase. Such a grading of an individual's capabilities is greatly affected by an individual's learning capacity, which increases employees' motivation to learn.

5. Perspectives toward Workplace Learning of Employer and Employees

A. Perspective of Management

A desirable cultivation of talented people requires employees to have a sense of team spirit and expertise in business. To this end, the company should provide an opportunity for employees to continue to learn and grow. Thus, the management provides different incentives, depending on an individual's contribution to corporate development and his or her competence, which makes an individual's learning capacity and results very significant.

As proper training should be provided by rank or job, the company is making a systematic OJT program and data to do this. Expertise should be intensified in R&D through such workplace learning, and sub-leaders' capabilities should be increased as well. This system, in which learning through learning group activities occurs, allows knowledge management to be constructed throughout the company. To this end, the

company will introduce KMS in 2009, and its effort to teach the staff information literacy is required to increase the use of KMS.

B. Perspective of Labor

Yeonwoo's research through a consulting firm while carrying out the government's learning organization project shows that employees' understanding of workplace learning is as follows:

(Full marks : 5 points)

	Necessary Performance Requirements	Recognition of One's Current Level	Need for Training
Average	3.84	3.75	4.09

Yeonwoo's employees showed a great understanding (3.84) of requirements (knowledge, skills, attitude, and experience) necessary for carrying out their tasks. They also showed a high level of understanding of their current expertise and competence (3.75). Thus, their recognition of the need for on-site training in performance improvement and self-improvement was very high (4.09).

(Full marks : 5 points)

	Presence of Performance Targets	Positive Attitude to Knowledge Acquirement	Effort to Develop Oneself
Average	3.70	4.00	3.35

Yeonwoo's employees demonstrated high motivation (4.00) to learn new skills and knowledge through workplace learning, since they have experienced various innovative activities, team activities, and group activities. They also achieved their personal goal to improve their performance (3.70). In addition, they showed a sustained effort for self-improvement (3.35).

6. Problems and Hindrance Factors of Workplace Learning

Currently, Yeonwoo has OJT for new employees organized to some degree, but insufficient OJT processes organized by job/position. Thus, there was something to be desired in implementing workplace learning. To complement the situation, it is

developed the OJT process by job/position since 2008, enabling workers to share/transmit on-the-job skills and knowledge.

For production workers, it is difficult to conduct workplace learning activities during business hours for fear of any delay in production. Thus, learning group activities are arranged to be held during hours other than business hours (after 6 p.m.), which seems to be an obstacle to learning.

With the lack of educational programs for workplace learning, it is difficult to manage training systematically by job. After finishing the relevant training, it should be evaluated so the next necessary step can be presented, but the lack of such a process causes difficulties.

7. Benchmarking Factors for Distinguished Examples

Phased Strategies for Knowledge Management

Yeonwoo first planned knowledge management; developed organizational and personal capabilities with the implementation of the plan; and then started to apply its knowledge management system accordingly. It was confident that the success of knowledge management comes from employees' information mind and computer skills.

Intending to introduce KMS in 2009, it is teaching the staff information literacy. Many small and medium firms want to share all inside knowledge and technologies to achieve knowledge management through KMS. However, those who have introduced and used KMS effectively are few in number. One of the reasons is employees' insufficient information literacy. To solve this problem, Yeonwoo teaches the staff information literacy every morning. Yeonwoo's efforts indicate that small and medium firms themselves should first have internal capabilities to introduce good systems.

Yeonwoo is trying to stipulate various educational systems, such as the in-house instructor system, learning group activities, OJT program, and mentor system. It is very important to introduce various educational systems to promote workplace learning and to stipulate them in a way suitable for individual firms. For many small firms, there is great disparity in investment in educational training depending on corporate conditions. This indicates that small and medium firms do not pay much attention to education and training. On the contrary, Yeonwoo paid significant attention to workplace learning, showing a will to stipulate and continue to execute it.

8. Influences of Governmental Policies on the Development of Skills by Workplace Learning

Yeonwoo introduced the Labor Ministry's learning organization project in 2007 to support its workplace learning. It increased its investment to effectively use the government's support for learning organization. It is aware that its own investment is needed to make business opinions reflected in projects supported by the government.
The company constructed a learning space in 2007, creating an environment in which employees could display smooth learning activities. It strengthened an individual's capabilities through learning group activities, allowing members to share their skills and tacit knowledge. To support employees' learning activities, it also awards a prize to a learning group which shows the best learning activities to encourage workplace learning. In 2008, it introduced OJT program so employees could learn skills and knowledge by job and position. In addition, it introduced the mentoring system to improve employees' working capacity and adaptability to the organization.

<Table III-17> Introduction of Government Policy

2007	2008
• Construct a learning space • Consult on learning organization • Learning group activities • Support best learning activities	• OJT program • Learning group activities • Mentor system • Support best learning activities

<Fig III-26> Structure of Learning Organization Development

9. Role of the Management for Implementation of Informal Workplace Learning

The management is planning to develop its own workplace learning starting in 2009 when the current government's support ends. The purpose of this plan is to foster multi-skilled workers through various workplace learning activities as a strategy for the intensification of skills to cope with the diversified manufacturing system, a trend in the global cosmetics market and in the rapid change in demand. What is needed to foster multi-skilled workers is to understand and organize field knowledge in the process of developing the OJT manual, and then to introduce such knowledge in KMS so they could construct a system for effective management, share such knowledge, and develop new products and processes through cooperative learning. To this end, the management is planning a mid- and long-term investment, expecting that the market for cosmetics indispensable to beauty will grow rapidly since the 21st century is the age of competing by beauty, not by arms.

9. Huneed Co., Ltd.

Introduction

Huneed effectively utilized a learning organization business supported by government for an organizational change. Also, Huneed contributed to promoting management innovation effectively, as the management supported a leading business plan and the progress of voluntary learning leader. The strategic utilization of learning organization played an important role in strengthening the organization's core competence by strengthening the effective communication for the organization's vision and strategic goal; this goal required management innovation and an individual personnel's competence; it also changed the corporate culture by striving to actively respond to the changing environment. Huneed commenced the learning group activity, the important program of learning organization for an individual's general ability development, and it strengthened the individual competency for the organizational performance improvement for the next year. Then, Huneed strengthened the organizational competency and improved the performance the following year. That is, employees effectively utilized a gradual approach in adopting themselves to a new culture. It is judged that the gradual learning goal served to strengthen the learning ability by beginning to strengthen the individual's basic competence; this reflected the individual's learning needs and connected them to the job. Organizational competence enhancement was suitable. It is considered that the business supported by government will become considerably effective if the suitability of the skill formation system and the company's conditions are high and can be adjusted by the learning leader.

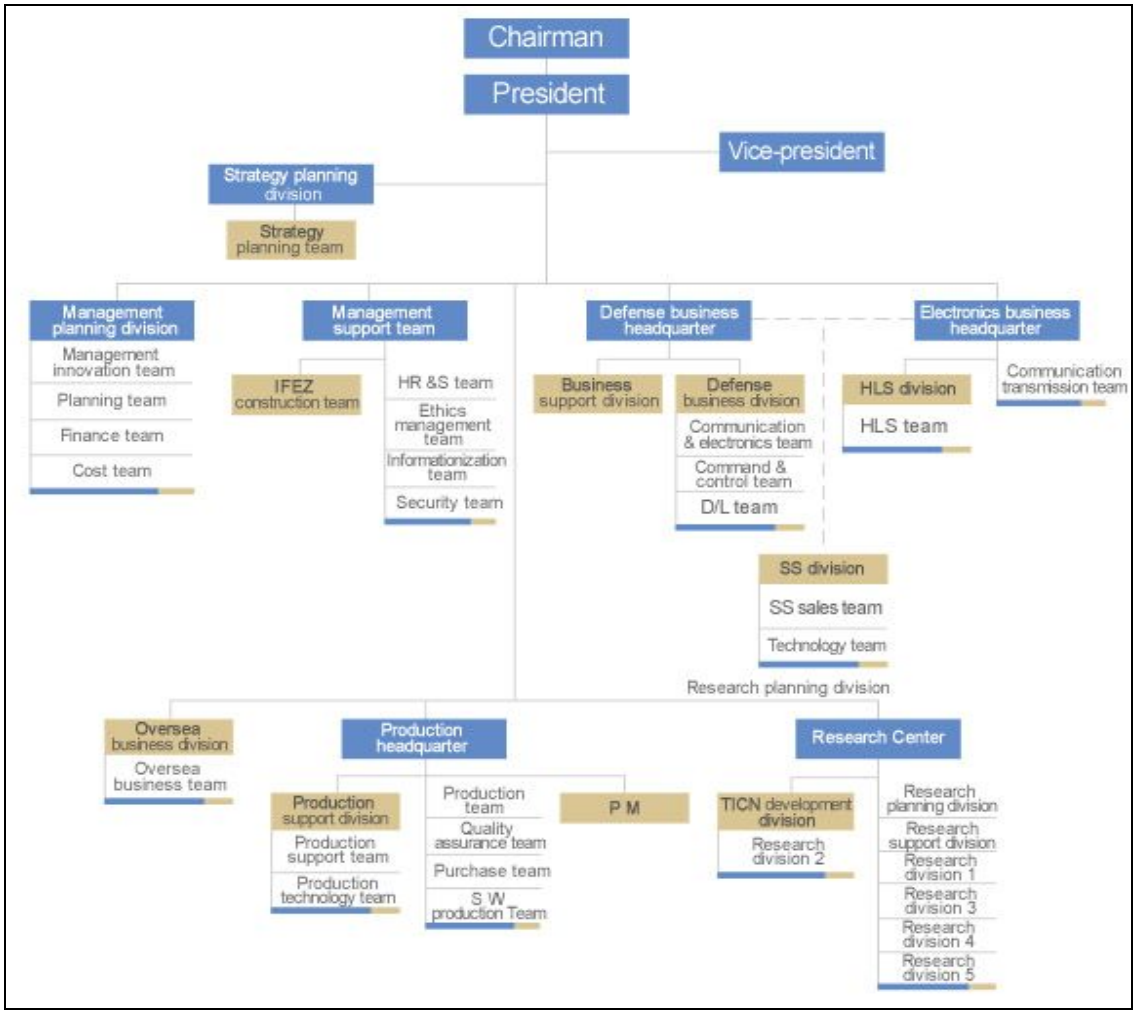
1. Relationships between Corporate Summary and Necessity for Workplace Learning

A. Corporate Scopes, Business Types and Types of Products/Service

Since it was established with the company name of Daeyoung Electronics Industrial Co., Ltd. in 1968, Huneed Technology Co., Ltd. (hereinafter "Huneed") has mainly produced and designed defense communication equipment, software, and the tactical system. As for the major products of Huneed, there are: the defense sector's military tactical communication network equipment, including HF, VHF and UHF radiotelegraph,; a

nongovernmental sector's microwave equipment, WIBRO and IP solution,; and a security sector's equipment and software.

Since 2000 when it began supplying the military communication equipment, Huneed has been stably operated, without uneasiness in market competition. However, the demand for new technology has increased, and the market started to become unstable due to the impact of globalization. Finally, the company was bankrupted, and then the new management of Huneed Technologies moved in. In 2002, the present CEO came on board and took the lead in substantially changing the company. The company required constant self-change and innovation from the employees, and it requested efforts for the competency enhancement. In this process, the management announced the firm commitment, "If you don't want to follow the company that pursues change and innovation, then leave it". Many employees who couldn't cope with this change (about 60%) left, and new employees joined Huneed. As the result of leading innovation and change in the company, Huneed has constantly explored the new business sector, including nongovernmental business, as well as the defense industry. Also, in 2006, Huneed entered into partnership with Boeing Company by attracting investment, and Huneed decided to transfer the company building to Songdo IFEZ in 2010. Huneed has since been growing globally. As of January 2008, 310 employees have been working for Huneed.



<Fig III-27> Organizational map in Huneed Co., Ltd

B. Relationships with the Necessity for Workplace Learning

Huneed has produced the equipment of the military tactical communication network for the past 40 years,. As the army's battle condition has sharply changed into the network-centric situation due to wireless communication, the demand for a new business sector has occurred. That is, the business area which is limited to the production of the existing communication equipment has been extended into the software technology sector which supplies the integrated management solution. Also, through making the partnership with global companies in 2006, Huneed's business area has been more extensive, and Huneed has attained the new management environment.

In order to cope with this change of management environment, Huneed has intended to grow into a global company with a new vision. For it, Huneed has strived to improve work flow and increase problem-solving ability through introducing knowledge management by learning. Also, Huneed has sought to build up the

organizational culture which enables employees to learn voluntarily by introducing SMEs learning organization business. Huneed's management policy aims to realize the company's vision. In other words, it advocates implementing the learning organization by strengthening workplace learning; cultivating employees as core personnel; and creating and sharing the new knowledge.

3. Specific Methods and Strategic Importance of In-house Workplace Learning

A. New Recruit Eligibility Education

Huneed has conducted eligibility education to let the new recruit practice voluntarily the values of Huneed and to rapidly adopt himself to the organizational culture. The new recruit eligibility education intends to cultivate basic ability by enabling him to understand the corporate culture through membership in the company's staff and execution of independent work reflective of an active role and responsibility. The new recruit eligibility education's course is described as follows.

<Table III-18> Eligibility education for the new recruits

Classification	Goal and Contents	Period / Subjects
Enterprise-wide Common Education	● Increasing the understanding on the company and improvement of belong ● Business skill acquirement: Marketing, Accounting, HR, Introduction to Production Management	5 days / All new recruits
Innovation School	● Improvement of innovative mind: Basic innovation techniques such as 5S and 6sigma ● Improvement of challenging spirit and positiveness: Entrepreneurship	3 days / The employee who has worked for more than 6 months after entering the company
Job Basic Education	● Learning of job basic knowledge: Enterprise-wide basic jobs including the sales practice, production system and R&D	Once a week / Applicant
OJT	● Understanding on unit organization's work: Experience of production field ● Improvement of adaptability to organization by actual work and training	2-5 months

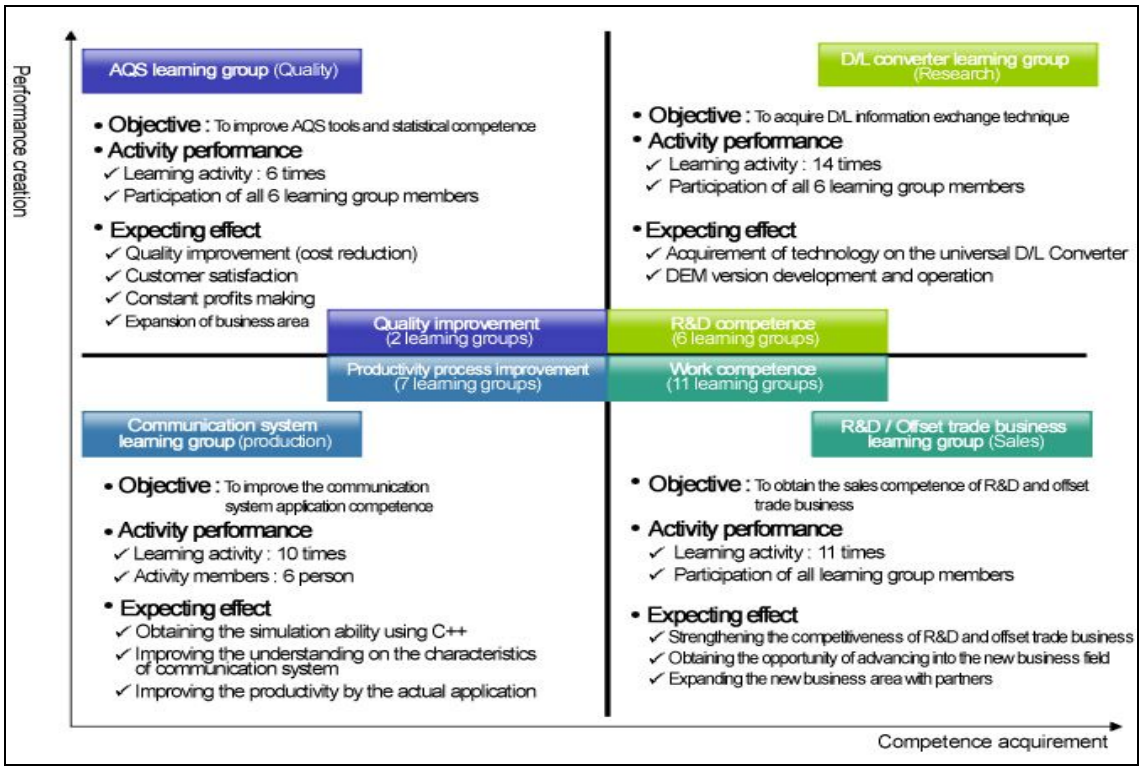
E-learning	● Basic capability and job basic knowledge acquirement, English, Chinese course	Every 6 months

B. Workplace Learning Method: OJT and Mentoring

Huneed operated the mentoring program in 2008 as an example of the SME learning organization business. Huneed executed the actual work by unit department by selecting the mentor (3 years and more experienced employee) and the mentee (new recruit) by the OJT method. It strengthened the competence of the new recruit, when the new recruits enter the company. OJT is executed by each sector of the company in addition to the recruit education. In the sales team and the research center, some employees who intended to improve their presentation skills in making e proposals and business plans, requested the education. Therefore, Huneed conducted the OJT education for them. After the OJT education, employees of the research center could increase the work efficiency as the length of time in preparing the business plan was reduced. Also, the sales personnel could improve their presentation skills, thereby strengthening external competitiveness.

C. Support of Excellent Learning Activity

Huneed has executed the learning group activity for the last 3 years by introducing the SMEs learning organization business. As shown in the above figures, the learning group activity has focused on the improvement of productivity & quality, as well as on the strengthening of R&D / Work Competence for the worker's self-desire and the organization's sustainable growth. In the learning group for strengthening the individual's work competence, the sales ability improved through learning group activity, so the company obtained an opportunity to advance into new business. Also, the learning group aimed at improving quality, reduced costs and improved customer satisfaction through learning group activity, thus addressing organizational performance. In 2006, the first year, 24 learning groups were operated. Then, in 2007, 25 learning groups were operated and then in 2008, 17 learning groups. The learning time is flexibly determined by the group, but not by the working hours. Also, members can act as associate members in other learning groups through the associate member system. Learning group members have executed the learning group activity online/offline by utilizing the KMS community and the space designated as the learning space.



<Fig III-28> Typology of Learning Objectives by Outcome improvement and Competency building

When the learning group's learning objective was divided in terms of performance creation and competence obtainment, there were 6 objectives for creating the performance and obtaining the competence. Eleven objectives focused on competence obtainment. Also, there were 2 objectives stressing performance creation. The objective was focused on competence strengthening, not performance creation.

The content of the learning group activities reflect a diversity of events and rewards for seeking learning results and sharing them with other employees, and for rewarding excellent results. For example, there are the learning contest, the excellent intellectual & excellent learning group contest, and the year-end's Huneed best man award. The employee and group that have good learning results receive additional points in the event and in addition to the award. It is known that employees are more interested in the addition of points than in competence & performance evaluation.

4. Differences between Formal and Informal Workplace Learning

A. Formal Learning

Huneed has conducted ethics education as group education twice a year for all executives and employees in order to deliver the basic concept of ethics management. The content of the education program helps employees understand the program, including the definition, context, and argument for ethics management Huneed has provided the basic knowledge education required for basic job execution as 'e-learning' for new recruits, and the education for understanding the company's organization culture and the division's basic jobs as 2 day's group education in the early stage of employment. Also, Huneed has provided the division job knowledge education for 2 hours every consecutive Friday.

Huneed's formal education and training have focused on understanding the company and basic job knowledge to e let the new recruit adopt to the company. Each year, 4-50 employees are newly recruited and 3-40 employees leave the company. In this situation, the education which enables the new recruit to rapidly adapt to the actual field is very important.

B. Skills by Workplace Learning

Through OJT among the new recruits employees can improve their adaptability to the company and rapidly learn their own job-related assignments. All new recruits must do the compulsory OJT in the actual work line. The business management personnel need to understand the production line properly.

As mentioned before, the learning group activity and the workplace learning's representative activity are conducted with various learning goals. The English learning group is more effective than the external English institution in improving English skills to answer the questions of foreign buyers and engineers. The intensive education which addressed a similar situation is largely effective. Huneed has operated the learning group with education content suitable for each level by allocating employees to the learning group by English skill level. Also, the learning group, consisting of the research center and sales personnels, was conducted to improve presentation skills. For the research center and sales personnel, presentation skills, such as new business plans and proposals, represented core competencies. Education was provided with practice lesson and by sponsoring external lectures. After learning, employees shared the lecture content through KMS. After education, the research center's personnel showed improved work efficiency, while time in preparing the business plan was reduced. Also, the sales personnel showed improved external competitiveness in ordering, as presentation skills improved.

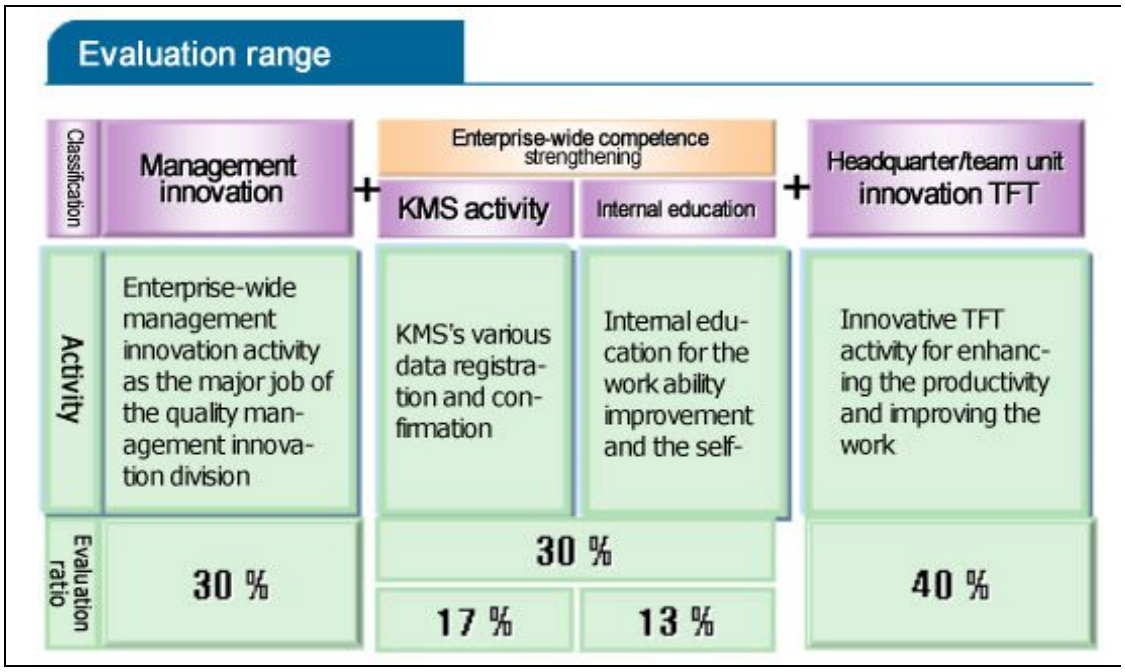
5. Core Issues on the Implementation and Promotion of Workplace Learning

A. Role of Leaders

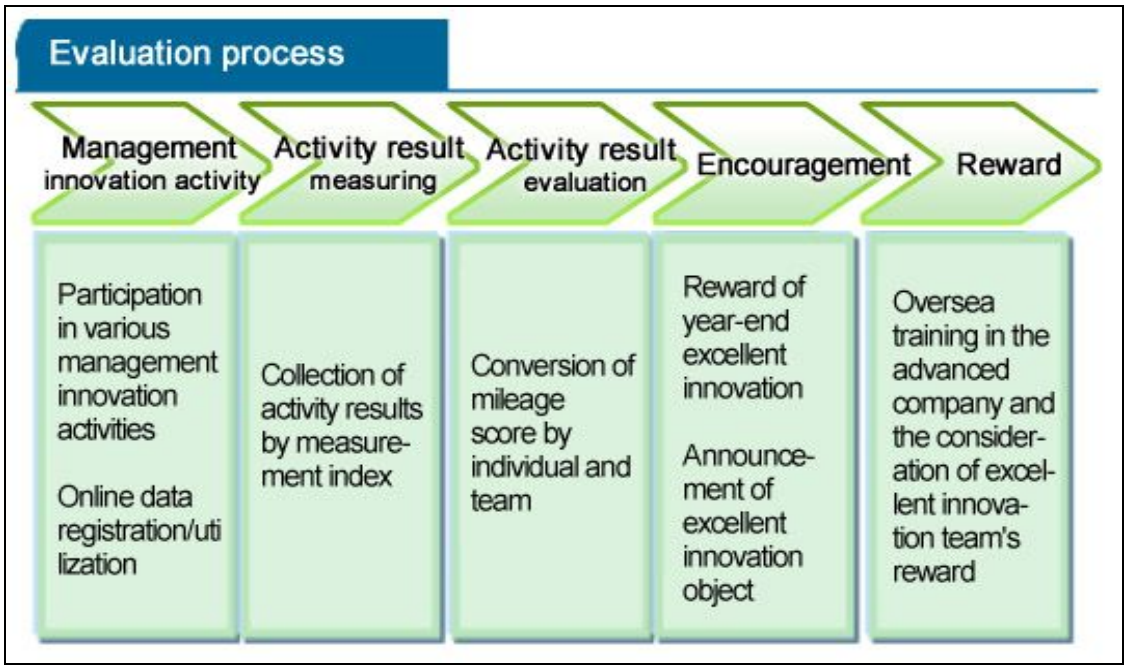
The major characteristic of Huneed is the role of volunteer learning leader. One leading staff member who worked in the innovation team of Huneed applied for the government's learning organization business to settle the knowledge management and learning culture executed by the company. He determined that the strengthening of the workplace learning, like the learning organization business, was necessary to attain the company's goal. He played the role of learning leader. In this role he attracts interests in learning from the CEO, and he delivers members' learning requests to the management. Secondly, the learning leader is the employees' learning facilitator, who coordinates and manages the learning group and participates in the learning directly. Thirdly, the learning leader induces the employees to register the new knowledge and experience which is the result of the learning group activity; in so doing, he spurs the accumulation and sharing of knowledge in the organization. Fourthly, the learning leader continues the employees' learning motivation by conducting the reward and events inducing the diversity of learning motives. The learning leader plays a role in developing personal career paths. Because the learning leader becomes the role model of learning, he says that his own learning ability is improved, and it is very helpful in understanding the company's overall management state and major problems and in understanding the viewpoint of the CEO' While teaching the role of learning leader to his successor, he is ready to faithfully lead the learning culture of Huneed

B. Evaluation and Reward System

Huneed has stimulated innovation and learning by employees in establishing 'the Innovation Award'. To objectively evaluate and reward the employees' activities of innovation and learning, Huneed has operated innovation mileage. As shown in the below figure, the activities of participating employees are converted into a mileage score according to a measurement index. Also, Huneed has provided a new learning opportunity with a reward to the employee and team who conducted excellent learning according to their mileage performance at the end of the year. Data on innovation and learning is stored and then shared by all employees.



<Fig III-29> Innovation award evaluation criteria



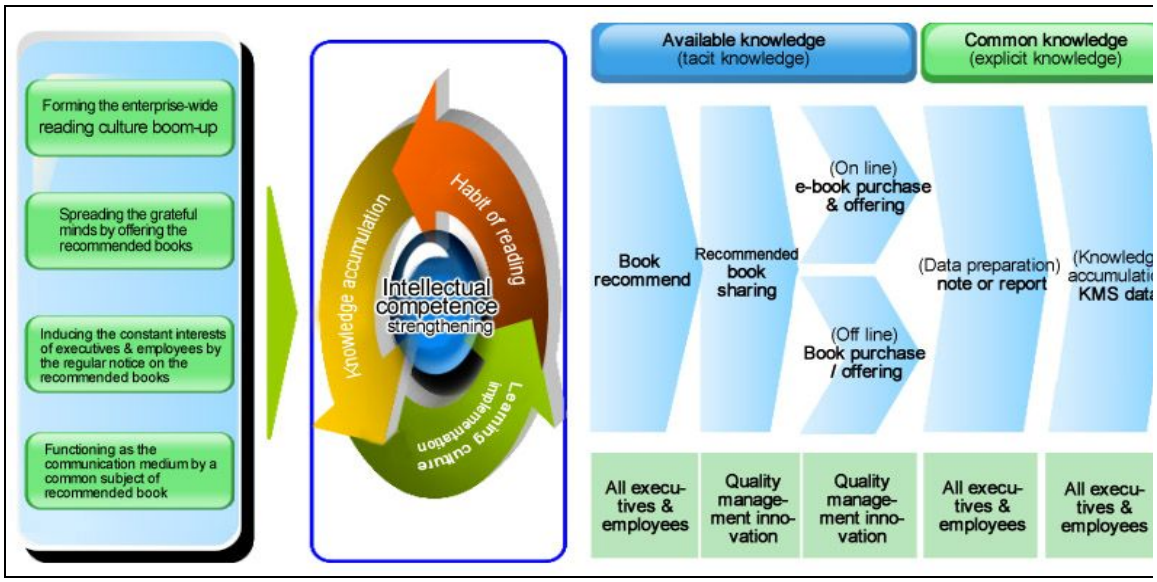
<Fig III-30> Innovation award evaluation process

C. Reading Management

Huneed has conducted reading management as a way to implement the learning culture. Because the employees' actual reading is very low (even though the new knowledge and

information needs to be absorbed), Huneed has executed reading management for the management aspect.

It has been aimed at accumulating knowledge and achieving individual competency by forming employees' good reading habits. In the process of reading management, when the employee recommends a book to the company, the company purchases the e-book or the printed book and provides it to the employee. After the employee who requests the book finishes reading it the employee writes a report and records the data to the KMS. The reading management is effective in strengthening the organization's overall communication by aligning the executive and employee's viewpoints about the company's vision and strategy.



<Fig III-30> The process of reading management

6. Recognition of Employers and Employees on Workplace Learning

A. Recognition of Management

Huneeds CEO has strived to improve all employees' competence for constant growth and advance into a foreign market. For it, he intended to implement foundation for workplace learning through the government's learning organization business in 2006. In 2007, he established the management policy of settling knowledge management and cultivating core personnel. This effort aimed to implement Huneed's unique learning organization culture model. Also, in this way, the employer intends to settle the employees' learning culture as the organization's culture and to cultivate the employee as knowledge/ work experts, utilizing the knowledge MAP and the expert MAP. The

employer expects to improve the employee's human resources management, and he hopes to contribute to the company's performance improvement, as well as the employee's job ability development.

B. Recognition of Employees

Because the company formed the environment and conditions to learn, employees could receive the motivation for learning. The learning group leader who actually operates the learning group is studying at the university offering courses most relevant to his own job. This learning group leader is studying with the group members through learning group activity, to acquire certification after finishing his working hours. The same learning group's members are also studying to acquire certification together. As the company has extended its business overseas, employees' improvement in English skills becomes very important. Accordingly, many employees have been studying English by themselves, even after working hours. Employees have strong enthusiasm for learning in order to become competitive individuals in their own fields.

7. Problems and Hindrance Factors of Workplace Learning

As Huneed's employees have increased in number (230 persons in 2005 to 310 persons in 2008) and the organization's system has been changed significantly, there is a need for systemizing the education course. Huneed's current education course was very sporadic. Accordingly, it was necessary to operate the personnel and education systems harmoniously in order to execute effective education. The company ha tried to execute insufficient OJT and mentoring within the present system, but ha difficulties due to the lack of internal personnel in charge of education.

8. Benchmarking factors of excellent examples

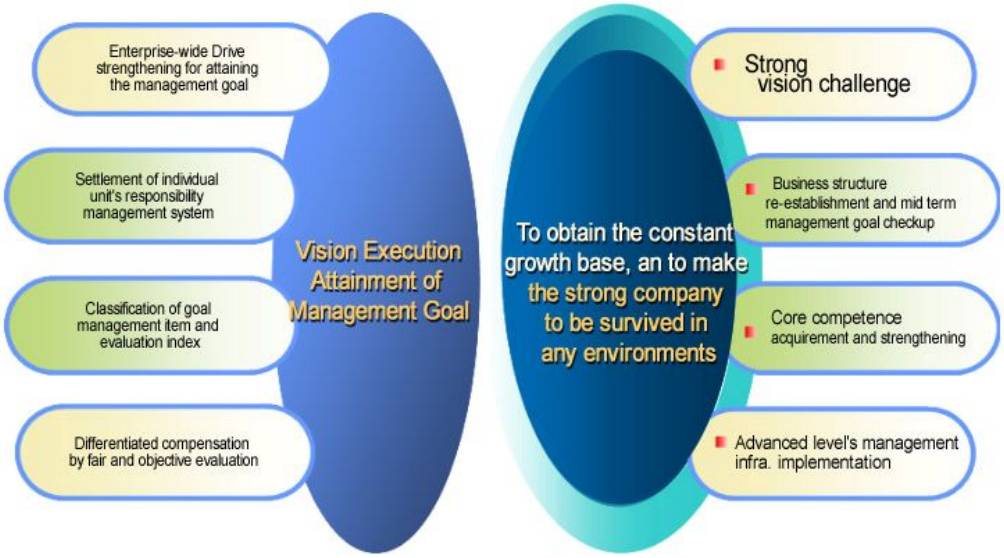
A. Gradual approach of learning organization

The SMEs learning organization business, which supports the various workplace learning types' operating costs and resources and the method of cultivating the skilled manpower suitable for the SMEs, guarantees the activity required for the cultivation of skilled techniques; it ensures it because the management and labor union cooperate for the successful execution and publically sign to guarantee the required learning time Characteristic of Huneed, the company established the development phases of 3 years and made the plan by phase. In the first year, the company focused on introducing

the learning group and connecting it effectively with the existing knowledge management. In the second year, the company focused on converting the field's tacit knowledge into explicit knowledge by connecting the OJT and the learning group activity and obtaining the individual's core competency. In the third year, the companies focused on learning performance management to connect learning with stronger organizational competence.

B. Change of Organizational Culture by MBO / Consensus Meeting

Huneed obtained the worker's spontaneous approval and conducted competency development effectively; it attained the company's goal by utilizing the individual goal & team goal management system which implementing the performance-centric organizational culture and the consensus meeting. All employees participate in the consensus meeting. Huneed measured the individual and team's performance effectively and evaluated it fairly and objectively with regard to compensation. Learning is the important indicator.



<Fig III-31> Alignment of Management and Organizational Development and HRD

C. Active Activity of Learning Leader

Starting with the accounting team member's proposition, Huneed's learning organization business conducted all things, ranging from execution to evaluation. The management played the role of support in seeing the learning leader's efforts and idea. The learning leader judged that he could do well in his own career development and this this business

was suitable in contributing to to the organization. In the process of business progress, the management recognized the learning organization as the core strategy of management innovation and he actively supported it. Individually, the learning leader could accumulate competence in human resources development and strategy planning, while executing his business with interests on HRD; he was promoted to the management's strategy team leader.

Based on the leadership of the learning leader, there is the behavior with regard to the individual's learning request. Because the learning leader's position was not high, he couldn't push the business with authority and power in the organization. But, the learning leader could help learners by respecting the learning participants, and he induced active participation by considering the requests of individuals. In an interview, the learning leader stated, **"When the individual's request and the organization's request are united, the learning performance can be remarkable. For that, the company must prefer the individual's learning request."**

9. Influences of Governmental Policies on the Development of Skills

Huneed didn't participate in the external outsourcing formal education supported well by government. Because older technology and skills were abnormal, Huneed utilized workplace learning to cultivate manpower. It is considered that the learning organization business is the government-assisted business suitable for utilizing the skilled personnel effectively according to the characteristics of the company's skills. The company actively accepted this business, and Huneed actively executed learning organization culture and knowledge management. When the government supports the workplace learning desired by SMEs, it shows how active the SMEs can participate in it.

10. The Role of Managers for Execution of Informal Workplace Learning

Huneed is based on the Chief Executive Officer (CEO) system in which the controlling shareholder and the CEO are separated. The CEO had extensive experienceas the officer, and he was sure that skills and active attitudes were the most important driving force for the company's development. After being appointed, the CEO judged it impossible for the company to survive, if the organizational culture, like bureaucracy and employees' behaviors, are not changed. The newly introduced Initiative's name is 'Busing'. Busing means that one must throw away the old bus and must take on a new one. The new bus requests the new principle and behavior. In particular, because one could not take the new bus if one had bureaucratic thoughts and neglected self-development, the CEO strengthened the self development to improve one’s value. The CEO strictly confirmed the development degree of the employee's expertise and skills. At that time, 40% of all employees left the company, but the new employees, which were equivalent to 150% of retired employees, were hired within 1 year. For the same period, the salary was increased by more than 150%.

This strong management change and the efforts of improving the organizational culture helped Huneed to diversify the business fields, explore the new market, and develop the foreign business. That is, it was helpful in overcoming the company's problems.

10. Sosul Co., Ltd.

Introduction

Sosul is a small yet strong company. Its employees' number and sales amount to being in the category of small business; the company has 50 percent share of the world market and continues to lead the industry. Therefore, its workplace learning has the characteristics of SMEs, but it also has a training system that can be found in the mid to large companies. The company is managing a training system that aims at the general skill improvement of all employees by applying such methods annual training programs and credits for training. To improve core work abilities, the company is implementing OJT, including specific training standards and manuals.

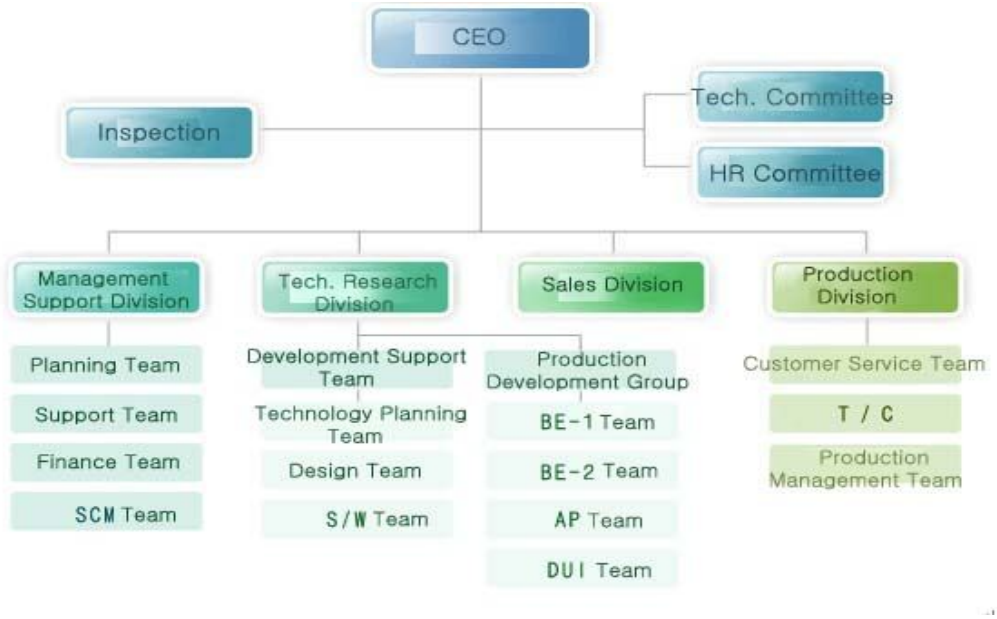
Especially in the on-the-job training (OJT) for new employees, workplace learning is executed with manuals, as well as through systematic training using the Task Check List. It was possible for Sosul to achieve this kind of systematic program because of management's vision of the future needs of skilled workers coupled with increasing demands. With its foresight and early investments, the company determined that there was no need to join the training management program in 2008 because it could prove to be restrictive and incur unwanted interference.

1. Corporate Overview and its Relationships with the Necessity of Workplace Learning

A. Corporate Size, Business Type and Products/ Services Types

Founded on March 29, 2000 as a semiconductor equipment manufacturer, Sosul, like many typical IT companies, is a technology expert In 2001, Sosul developed the first 200mm Plasma Bevel Etch System and delivered it in mass production to a major domestic company in 2003. Since then, a change in the management control occurred; the founder gave management control to KOMICO, and an expert management officer was brought in. Since 2005, sales grew exponentially and the company began exporting goods to the United States, Europe, Taiwan, Singapore and other countries. In addition, from March 2006, a delivery contract was signed with the world's leading semiconductor companies. As of 2007, Sosul grew to be a company with revenues of approximately 40 billion (won), approximately 1.8 billion (won) of capital and

approximately 130 employees. Its main product is a bevel etching apparatus, one of the semiconductor main devices, which cuts the corners of the wafer in accordance with the circuit. The device, DRY equipment, uses plasma, and it shows the innovative effect of i reducing time at the etching stage, which was always a bottleneck in the manufacturing of semiconductors,; it reduced eight of the existing WET processes.



<Fig III-32> Organizational map in Sosul

B. Relationships with the Necessity of Workplace Learning

Human resource development strategies for improving the competitiveness of Sosul are as follows: first, aggressive marketing was used to expand the domestic market share and overseas footholds in Taiwan and North America by improving employee marketing skills and language abilities.

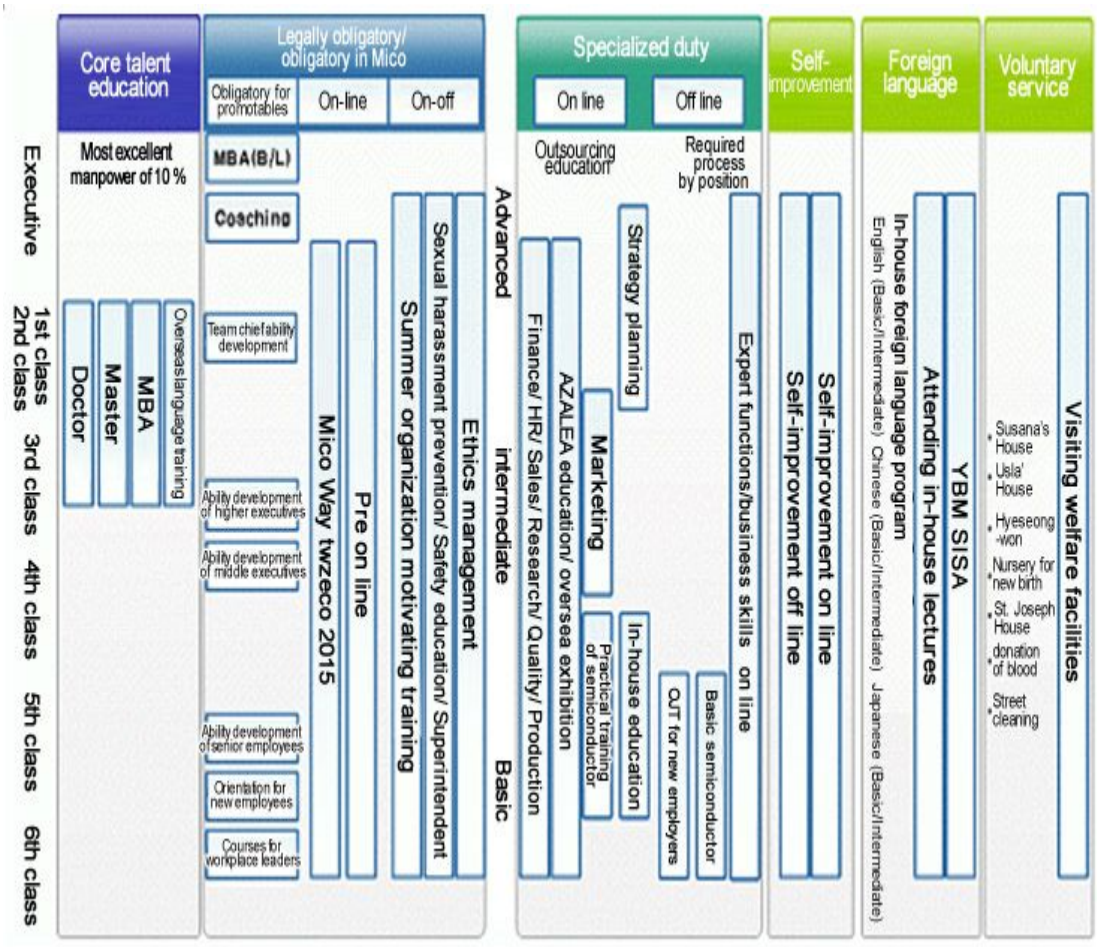
In fact, the current semiconductor market has increased importance in overseas markets, with more face-to-face meetings with foreign buyers. Thus, it is important for employees to be able to cope with the problem in the field of business; to go out and learn; and to propagate the knowledge and skills learned in the process.

Second, it is important to ensure that the developers do not fall behind rapidly changing semiconductor technology advancements. Recently, semiconductor wafer manufacturer requests are gradually growing in size (8 ″ → 12 ″ → 15 ″) and are helping the rapid progress of technology manufacturers. Accordingly, Sosul also has to accommodate the needs of the fast changing customer (semiconductor manufacturers as a semiconductor equipment maker; technological innovation for equipment and constant challenges must

be overcome. The developers have the basic knowledge learned through graduate school, but in addition, theoretical knowledge, specific equipment technology development, and optimizing on-site skills are needed through workplace learning.

Third, production quality must be enforced through QM (Quality Management) tasks to stabilize the organization and quality management. The employees will execute QM tasks, so collective learning is required for efficient communication within the QM organization. Through collective learning, the company can reduce the number of poor quality products and wasted costs, and it can address the issue of faulty product returns so that employees can increase their capacity.

2. Educational System / Credit Earning (Formal Training)



<Fig III-33> Sosul's education system

<Table III-19> Sosul's credit system

Management	Division	Executive/team chief	G Vocation Area (Clerical Worker)	T Vocation Area (Production Worker)
Head office (Mico)	**Legally obligatory**	Obligatory for all the executives and employees		
	Obligatory in Mico	Obligatory	80	60
Sosul	**Specialized duty**	Selective		
	Self-improvement		20	20
	Foreign language		20	20
	Voluntary service	Obligatory twice a year	Obligatory for promotables three times a year	
Total			**120**	**100**

<Table III-20> Current status in 2007 education credits

Education category	Total credit	Average credit
Work innovation	11,070	95.4
Foreign language education	9,201	79.3
Voluntary service activity	2,186	18.8
Total	22,457	193.6

Sosul is not a typical SME, but a small and strong SME. Therefore, skill development is centered on-site and manages systematic training. A general training system is adopted from the parent company, MICO's education system, while individual employees' training and education shall be in accordance with their duties and position in regulated hours.

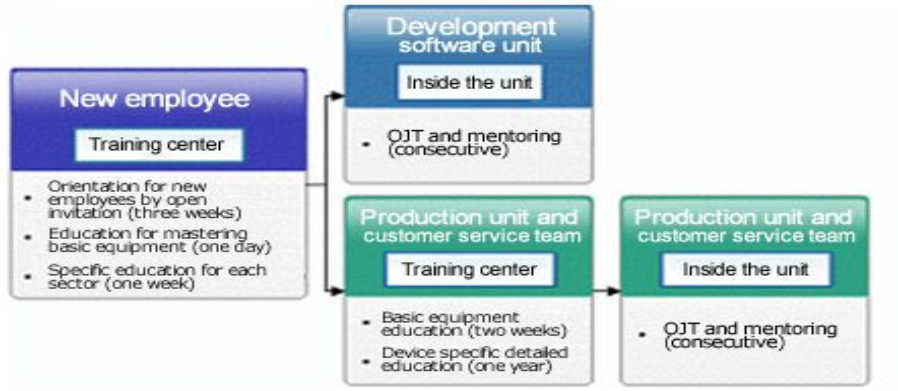
For example, a clerical worker must be trained in sexual harassment prevention through training courses and he must undertake safety training under obligation by law; in fulfillment of the mandatory training policy of the parent company MICO; ethical management and introductory training are required for new recruits. This also includes a minimum of 80 hours a year in specialized courses for semiconductor job training, OA-course, etc.

In addition, a minimum of 20 hours is required for workplace manners, invited lectures, and listening and consideration. After taking 20 hours of language courses, the employee must show sufficient results from an accredited language test. These training

courses are done in a formal capacity, both on and offline. This company's training system functions at a more conglomerate level than a SME.

3. Specific Methods to Apply Workplace Learning to Skills and their Importance

A. On-the-job Training



<Fig III-34> Education course for new employees

All new employees must participate in the MICO entrance training program at the training center for three weeks and receive basic machinery training, as well as expert training in their area of employment. After this fundamental training is complete, the new development/software employee will be placed on the job site to receive workplace learning /mentoring.

On the other hand, since the equipment manufacturing and customer support teams will have to immediately start direct assembly / production / repair tasks, they receive an additional 2 weeks of training, followed by one year long specialized training on all equipment. The specialized training on equipment is initially done with a senior employee using a manual for the first 3 months; progress is evaluated by the 101 Task Check List. The Task Check List consists of itemized tasks (installation, operation, part, prevention, safety etc.), representative of each area; it evaluates whether the new employee can perform the tasks involved.

<Table III-21> Sosul's OJT objectives

Level 1. Beginner : Assembly (3 month education)
Level 2. Intermediate: Operation, Set-up (3month education)
Level 3. Expert : Troubleshooting (6 month education)

Upon passing assessment at Level One (shown above), employees move to Level 2; it takes about 1 year to complete workplace learning and to become an expert at the Level 3. This OJT teaches essential operation skills, such as equipment operations/management, and improves skills in problem-solving, therefore improving productivity and reducing the amount of inferior products. Also this education lessens customer's complaints, due to reaction time upon request. In OJT for manufacturing employees, there are step by step manuals created by upper managers on their standards at the beginner, intermediate, and expert levels.

B. Technical Report of R&D

During the course of work, institute personel write reports on their individual know-how, as well as guidelines on how to manage their work. This task helps to minimize the effect of an unexpected vacuum in workforce, while workers share information and individual know-how among themselves.

The technical staff maximizes their ability through discussing and learning other's work and reports. In fact, there were more than 70 reports in year 2007 alone, in which, several cases resulted in patents. To systemize and use information effectively, Sosul tries to protect and manage these valuable reports and know-how as a part of the company’s assets.

C. Mentoring

If there are new recruits in Sosul, they learn by doing real work and projects with their mentors through the mentor-mentee system; in which the former can be a manager. For example, a new engineer for process development learned mixed-gas technology for machines for one year through the mentoring system. During the first three months, employees learn theoretical research through group studies, then for about 3 months, they observe the senior mentors.

During the next three months, they learn from working together with their mentors, and during the last three months, their mentors observe and lead them to do the actual work. Depending on the speed of learning, the duration of education is flexible. Mentors create OJT reports on each step and about a year later, mentors create the final reports on their final level of progress.

D. Conducting Team Seminars

To strengthen the teamwork, employees create team and conducting seminars. This kind of activity is the backbone of communication within the company through the sharing of actual problems related to work and mutual problem-solving. There used to be many problems between the labor union and management during 2006, when the company expanded quickly thanks to new recruits and replacement; but because of these team activities, the company effectively reduced conflicts through cross communication.

In addition, participants obtained and shared new knowledge through the process of presenting and discussing the various experiences they had had in the workplace. This led to good results for the whole organization and individuals, by improving working abilities and proposal activities of employees and lowering the substandard rates of products.

4. Differences between Technical Development by Formal Learning and Skills by Informal Workplace Learning

A. Technical Development by Formal Learning

Sosul's formal education is managed by a cyber professional training center in MICO, their mother company. The content includes education in core values of MICO in order to formalize the company culture through online courses. Also in order to strengthen ethics, the company fosters in-house instructors on business ethics; educates employees on/off line; and distributes specific instructions.

In addition, to develop employees with specialized job skills and know-how for expertise, certain employees may be selected by the team leaders to receive external training. External training courses consist of basic business training, basic job skills, OA courses, semiconductor training, 6 Sigma course and in-house instructor courses.

And as Sosul gradually expands business overseas, language training for overseas sales and technical support are implemented. Courses offer languages such as English, Japanese, and Chinese at each level. After completing the course, the employee must submit the results from any accredited language test such as TOEIC, and excellent trainees are rewarded.

B. Skills by Workplace Learning

Continued efforts to strengthen core competencies in Sosul are needed to change the environment (semiconductor technology development) to develop and effectively

respond to new equipment: it is imperative that the after sales service is optimized so that the equipment is capable of high productivity.

To have to capacity for equipment development, the employee must receive 3 years of workplace learning based on theoretical knowledge in related subject matter. Independent research and development projects relating to R&D requires more than five years of practical experience.

The core workforce in A/S, regardless of whether a high school graduate or college educated employee, requires three months OJT in basic theory and operation. After 1 year the employee will reach the intermediate skill level. In the case of team leaders of A/S, more than three years of field experience is necessary.

The seminars participated in by both A/S and research teams are opportunities to learn functional knowledge stemming from facts and experiences. They are proceeded by group discussion and announcement of issues and problems to take advantage of learning opportunities and establish active learning.

5. Core issues of Executing and Promoting Workplace Learning

A. Formation of Lifelong Learning Atmosphere within the Organization

Due to the nature of the semiconductor industry, technology is developing at a very fast rate and requires employees to keep pace with relevant job skills and competencies. Sosul leads all other small-mid sized companies in systematic training. And the company meets the demands of external training for a more diverse education. In addition, a lifelong learning atmosphere was created from the excellent reward programs from training.

B. CEO's Experience and Interest in Management

The current CEO has work experience as an executive in a large foreign semiconductor equipment manufacturer, he sees a lot of potential for growth in Sosul in the future. The CEO plans to secure a great deal of skilled manpower through training programs to prepare for an expanding semiconductor market. The CEO is taking advantage of a variety of techniques used in large foreign companies to leverage the considerable investment in human resources for the progress and quality of skilled manpower and thus secure the main goal of management.

6. Recognition of Management and Labor on Workplace Learning

A. Recognition of Management

Sosul's mission statement from the founder was the 'creation of new technology through continuous self-development'. Because the founding of the establishment was more of a private enterprise started by people from the semiconductor industry, the management has felt that the most important goal was to upgrade technological development capability and the employee's ability create that capability. And to prevent the loss of manpower to larger companies and competing companies, it was more prudent to continue existing human resources development, rather than recruiting new manpower who needed to be educated continually.

B. Recognition of Labor

Employees are generally learning specifically based on work related content. Which means, the opportunity to apply learned skills is constant and does not separate training and work.

In particular, it is difficult for the new employees to apply theoretical knowledge acquired from college. This is why workplace learning and mentoring will increase their capacity to apply fundamental concepts to practical training.

7. Problems and Hindrance Factors of Workplace Learning

A. Issues of Personnel Outflow

SMEs are reluctant to develop general skills which can be utilized by any company, which stems from the problem of expert personnel outflow. In reality, this company has problems of losing to the larger companies their trained personnel after investing in their development. To prevent this, the company is reducing the formal training that concentrates on the language courses and reducing 2~300 hours of total training time by increasing OJT instead. In fact, an estimated 30% new employees leave this company by finding a better position elsewhere. These losses are not only effecting the costs and time invested in training, but they also burden the company to find replacements, not to mention potential vital information outflow, if an experienced employee were to leave.

B. Lack of expertise in the workplace learning

Since Sosul is trying to execute all content of workplace learning from within, it is feeling the limitation of its in-house capacities. The company did try to find external

sources for common training, but it did not succeed due to the lack of companies who can provide what it needs.

The company is also facing difficulties because of the lack of time and manpower needed to achieve the capacity to deliver the massive, yet diverse amounts of training in manualizing and systematically establishing OJT. Additionally, there seem to be few experienced employees who do not like to share specific learned skills.

Currently, Sosul is having trouble applying the large company workplace learning program as its own. Therefore, it is necessary to develop the workplace learning models fit for the company.

8. Benchmarking Elements of Excellent Cases

A. Systematic Education System

Through a SME, Sosul manages its in-house education on a systematic basis. The education is carried out, with annual mandatory education hours and the establishment of education type specific mandatory hours. A prize of 160 thousand won is given to each of the employees that have completed education with the circumstances being globalized and the expansion of overseas business. Such education is conducted at the training center, an in-house educational institution, which also implements both on-line education and the career management of employees in a thorough way. Such systematic education has built up an in-house life-long learning atmosphere, and it has promoted participation in workplace learning.

B. Work Division and Composition of the OJT Education Standards List

Sosul has clearly documented the content of the duties and abilities required for each team as follows:

<Table III-22> Work Division at Sosul

Team Name	Duty Name	Duty Contents
Sales Team	Sales of equipment to semi-conductor manufacturers	• Account business (Customer management, system business, emergency response to spare parts, etc.) • Marketing (Market research, establishment of business and sales strategies, etc.)
Quality Management	IQC	• Import examination of processed products (corporate report, drawings, results career management) • Import examination of purchase products (drawings, and

		results career management)

With the duties and abilities specified by division, each employee can be clearly aware of his/her tasks and make an effort to master his/her relevant abilities in the field. Based on this data, some production divisions carry out the OJT with the systemized education standards list by elementary, intermediate and advanced levels. From 2008, the company specifies the abilities required for divisions to carry out the OJT for each division and makes an effort to have the staff in charge work out the OJT manuals.

9. Influences of Government Policies on the Development of Skills through Workplace Learning

The employment insurance policy of the government plays an important role in boosting education and training whose expenses are refundable to the companies involved. The refund policy of education expenses is a way to refund up to 80% of the expenses spent for the education and training carried out in accordance with the regulations for the Ministry of Labor. However, the education and training whose expenses are refundable are mostly performed in the form of off the job training, and the in-house education cannot get the benefits of refund, unless it is operated in a form of school-type collective education, not workplace learning.

This is why Sosul does not receive any refund of employment insurance from the government, since its OJT and mentoring belong to informal education in the field. In addition, the company receives few policy benefits from the government, since it does not take part in the learning organization project implemented by the Ministry of Labor.

Carrying out formal education on a highly systematic basis, Sosul receives the refund of employment insurance for such education. As seen in the table below, the company receives the refund money of around 40~50% that is limited to the MICO compulsory education and the work/cyber education conducted on and off line.

<Table III-23> Sosul's Refund Amount and Ratio of Employment Insurance

Education Category	Education Expense (won)	Refund (won)	Actual Expense (won)	Ratio (%)
MICO Compulsory	477,816	55,500	422,316	41
Specialized Work/Cyber	557,866	225,437	332,429	47
Culture	25,400	740	24,660	2
Voluntary	21,200	-	21,200	2

Foreign Language	83,000	-	83,000	7
Miscellaneous	14,650	-	14,650	1
Total	1,179,932	281,677	898,255	

The public insurance, which refunds training expenses only for formalized education, has led to the overexpansion of formalized education, as compared to OJT. Normally, companies cannot get OJT expenses back at the work site which constitutes most of the learning methods for core ability; this leads them to increase formalized education and training, the expenses of which can be reimbursed, in order to save budget. The problem might cause the management to recognize that HRD is an extraneous activity, rather than a sure way to develop corporate core skills.

10. Role of the Management for the Implementation of Informal Workplace Learning

Sosul's management is making bold investments under the recognition that workplace learning is decisively important for the buildup and reinforcement of core capabilities. In one example, if employees organize study groups to proceed with their learning, the Company funds the costs involved. In addition, the Company has accepted the opinion that too much emphasis is put on formal training, as compared to workplace learning; in so doing, it adopts a strategy to gradually decrease the compulsory hours of formal education (compulsory time: 06' 320H → 07' 160H → 08' 120H) and to step up the OJT hours. Accordingly, one of the main goals set for the 2008 education project is to arrange work specific manuals and systems on a systematic basis.

IV. **Summary and Conclusion**

1. Comparative summary of examples

10 company's cases of workplace learning is summarizes with 14 items describe in chapter Ⅰ. Broadly, the table has three categories to show: First four items provide general context of workplace learning practice; following six items are specific descriptions of workplace learning and attitude about learning; last four items indicate problems of the learning and ways to solve it. Benchmarking factors are added.
Detailed descriptions of each item in the table are as follows.

A. General context of workplace learning practice

<Table IV-1> provides general background of organization. General background is categorized with 4 items: organizational structure, necessity of learning, strategic importance of learning, and scope of learning practice.

<Table IV-1> Comparative summary of 10 companies: general context of workplace learning practice

Company	*Organizational Structure*	*Necessity of learning*	*Strategic importance of learning*	*Scope of learning practice*
Yuhan-Kimberly	- factory-level autonomy - functional qualification system as an incentive	shift-operation for production	- just-in-time training for productivity - organization memory construction	- OJT, job process training for new employee (2-3 months) - specialization training or workshop for skilled employee (on-demand)
Dongmyung Foods	- a factory with 60 employees - adaptation for relocated factory environment	- line-expansion, automation for production quality - reducing machinery errors	operative knowledge acquisition for effective factory operation	principal knowledge on entire production system and practical skills on automated machinery
UIC Chicago Hospital	- Dental clinic with 22 employees - effective work distribution	- competitiveness of market - service enhancement	longevity in the market	- mentoring new employee for 2 months - skill development, leadership and general knowledge training
Hanacobi	- 306 employees - manufacturing, export-oriented	- Increasing communication within organization for innovation	- workers' safety related to productivity - productivity enhancement	- Improving communication for working and training system - systemizing work process
Miju Autotech	- 180 employees - Top priority on quality control for market competitiveness	- competitive market - absence of innovative mindset in work place	change in organization culture for production enhancement	- OJT, safety and workplace training for new employee (40 hrs) - Instruction by In-house experts (bimonthly)
Youngjin	- 110 employees - sub-contractor of Hyundai Motors	- increase in market competition - introduction of automation	- decrease in work stress - productivity enhancement	- OJT following manual, mentoring for new employee (1 year) - learning group activities for sharing knowledge and experience
DSP	- 39 employees - export-oriented company	- increase in market competition - gap between work competence and personal capabilities		- learning plan that schemed for a year
Yeonwoo Industrial	- 478 employees,- 3 divisions:sales, production,R&D	- quality control for production - R&D for new products	reducing defects of products	
Huneed Technologies	- 310 employees - recovered from bankruptcy	- expansion of business area		- OJT, mentoring for new employee - E-learning system

Sosul	- 130 employees - Manufacturing devices for semi-conductor	- fast cycle of technology development - quality control	productivity increase	- mandatory 3 weeks' training for new employee - mentoring, machinery learning, team seminar according to job

① Organizational Structure

It provides general background of organization. Each organization is in a different market position and different in terms of organization size. For example, UIC Chicago hospital has only 22 employees whereas Yeonwoo Industrial has about 500 employees. However, most of cases are manufacturing SMEs except UIC Chicago hospital which belongs to service sector. It hints us that our cases are mostly linkage between workplace learning and productivity related to manufacturing products. In this sense, skill development by learning that increases quality of products or enhances work process affects growth of an organization.

This item also show whether the structure of organization tends to be hierarchical or horizontal. The practice of workplace learning differs depending upon organizational structure. The horizontal structure of organization has a tendency to arrange the workplace learning with informal form rather than with formal form. Yuhan-Kimberly is a good case to point out how informal learning conducted in the factory level – working site – can achieve successful results. The hierarchical structure of organization, in contrast, focuses on formal form of workplace learning so that it is often the case that the workplace learning is not necessarily related to their works. This learning practice expects potential positive effects from the learning practice but its impact has not been largely visible yet. For instance, the concern and determination of management level in Hanacobi case is waiting more concrete numbers from the learning.

② Necessity of learning

This item explains reasons to introduce learning practice at workplace. As hinted above, most of reasons concern productivity issues. Productivity issues in here rely on work process improvement and innovative organizational change. For example, standardization of machinery setting and quality control of production directly regards finding efficient ways of improving production process. However, the purpose of increasing communication within organization and increasing personal capabilities is to change organizational culture for making it eventually to contribute productivity. One thing to note is that either of pursuing more efficient ways of production, or organizational change as a response to competitive market environment, each organization sees that the necessity of learning composes one of keys to enhance market competitiveness for an organization.

In spite of that, increasing productivity with regard to workplace improvement and

organizational change is designed to meet specific contexts of organization. Indeed, one of contexts comes from internal change shaping organization. Relocation of factory in Dongmyung Foods is the very example to apply workplace learning in accordance with internal change in the organization. Youngjin Co, Ltd has also experienced internal change through introduction of automated production system. Expansion of business area in Huneed Technology can be categorized as an internal change shaping organization. The other context is the external pressure from market. Such as UIC Chicago hospital, Miju Autotech and DSP cases are evident that increasing competition in their market pushes organizations to innovate organizational structure for price competitiveness and lowering production costs. Sosul Co., Ltd has also confronted with fast cycle of technology development that pressure the organization to conduct continuous innovation.

③ Strategic importance of learning

Strategic importance of learning described here means concrete role and contribution of learning to productivity. Recall that necessity of workplace learning is connected to productivity issue. Connection between productivity and learning requires concrete implication of workplace learning that can be used for enhancing or overcoming present lock-in status. Therefore, strategic importance of learning is that how practically – in other words, strategically – learning can be used for improving present status. It can be regarded as a goal of workplace learning. To elaborate more details about this importance, each case will be briefly summarized here.

For Yuhan-Kimberly, just-in-time training through workplace learning made it possible that organization is able to construct organizational memory. According to organizational behavior theory, organization memory paves the way to increase job satisfaction and concentration contributing increase in productivity. With sudden changes in organization, Dongmyung Foods Inc. finds that growing up independent and autonomous employees is the ‘must-have’ option for company’s development. They consider the lack of having those employees in the organization is due to absence in learning opportunity. In contrast, UIC Chicago hospital has the opportunity but it was carried without long-term plan. Systematic but continuous learning program is a preparation to meet customer’s continuous changing needs in service sector. For Hanacobi case, frequent occurrence of accidents requests organization to provide learning opportunity. They believe this opportunity will develop specific requirements for work operation and reduce accidents. In Miju

Autotech's perspective, workplace learning is critical factor to survive in the market. As one of many OEM companies, Miju Autotech needs complete dexterity of production. Youngjin Co. is also in the same context as Miju Autotech – OEM company in motor industry. But rather than dexterity, their focus relies on active role of employees during work process. Their employees need to recognize their ability to understand machine and reduce work stress of production. For DSP, workplace learning is new for company and need to fix their problem. Since they had no experience of learning program, adaptation of new employee often delayed and claim rate from clients was high. Yeonwoo Co., one of relatively big SMEs in our cases, is on the track of company's jump-up. Therefore, reducing defects of present production line along with R&D of new products has same degree of importance. Sosul Co. which is small in size but high in market competitiveness is based on specialty of job operation and this specialty comes from workplace learning practice.

④ Scope of learning practice

Scope of learning practice is to answer the question that 'who will get workplace learning?' If it is not explicitly mentioned, the boundary of workplace learning is all employees in an organization. Most organization has a program to teach new employee. Other than OJT, mentoring is also frequently used.

Some companies such as Dongmyung Foods, Hancobi and DSP show relatively little attention to workplace learning specific to new employee. Therefore, their workplace learning practice does not differentiate between new and skilled employees. It is the combined result of organizational change and inexperience of systematic workplace learning program. For instance, Dongmyung Foods was in an urgent situation to adapt new factory site, to hire new workers for filling in place of old workers who left out and to develop worker's skill level. Hanacobi and DSP cases show that they had little experience or program to conduct workplace learning for new employee. Therefore, their production process is continually exposed to problems such as safety issue, delaying operation and high claim rate. To overcome this, they started workplace learning program for entire employee and tried to make manual for OJT as in the case of DSP.

A. Specific descriptions of workplace learning and attitude on learning

<Table IV-2> provides specific descriptions of workplace learning and attitude on learning categorized with 6 items: detained method, emphasis, formal learning, informal learning, facilitating factors of implementing learning, and attitude on learning.

<Table IV-2> Comparative summary of 10 companies: descriptions of workplace learning and attitude on learning.

Company	*Detailed method*	*Emphasis*	*Formal learning*	*Informal learning*	*Facilitating factors of implementing learning*	*Attit* **Employe**
Yuhan-Kimberly	- 1 on 1 training - mentoring - workshop	- organizational socialization - standardization of production	-Instruction by experts - workshop on SOP	spot training	- in-house instructor system - MPD - evaluation system linked to promotion - Cascading training system	- recognition of li between perform and learning - humanism philo
Dongmyung Foods	- using cleaning time to handle issues on production and cooperation - planning to grow in-house instructor	- stabilizing production process - reducing unnecessary conflicts between workers	- long-term learning for skill development on machine - general knowledge training	basic training on machine	- consulting for 'new paradigm project' - transition from 2 groups-2 shifts system via 3 groups-2 shifts to 4 groups-3 shifts system	- confidence abou linkage between performa and learning - humanism philo
UIC Chicago Hospital	- stepwise learning system	- construction of continuing learning system - long-term plan for the learning	- learning system specified to work and position of job	N/A	- reorganization of working shift to 4 groups and 3 shifts - promotion and compensation system linked to learning - shared vision within organization	- unconditional su for training and learning - perspective that human investmen future preparation company
Hanacobi	- differentiation based on a kind of work	- strengthening team leadership - transferring know-how of work flow	general knowledge training	Spot-training	- training to make in-house instructor - construction of continuing education system - practical supports from company (i.e. cost coverage)	- humanism-based management philosophy - active supports t training and edu system
Miju Autotech	- learning group activities - adaptation of	- accumulation of attained knowledge	- learning at institution outside	- spot-training by learning group	- solution for cultural deprivation - evaluation and compensation system	- understanding o the learning follo by active supports

	knowledge management system - awarding system		- sharing produced knowledge	company	activities	- participation by management level	
Youngjin	learning group activities		- accumulation of attained knowledge - technical manual making	general knowledge training	spot-training	- application of learned knowledge at work - individual development scheme through learning - sharing and diffusing knowledge	Positive on produ increase by learn
DSP	- learning group activities - OJT manual making - making learning space			- training at outside of company using instructor outside	spot-training	- role of learning team leaders - preliminary consulting for training and education plan - learning leave and awarding system	Positive and passi on learning
Yeonwoo Industrial	- OJT for new employee - mentoring - learning group activities - in-house instructor		- reducing turnover of employees - sharing of know-how and knowledge	general knowledge such as IT, OA, safety	spot-training for reducing product defects	- learning experience by learning group - autonomy in selection of learning subject - incentive for learning and rewarding system to be in-house instructor	
Huneed Technologies	- OJT, mentoring - learning group activities		- adaptation to organization culture - cost down, productivity increase	- e-learning of general knowledge - lecture on ethical management	Group activities	- the role of team leaders - evaluation and compensation system - emphasis on reading	Emphasis on developing individual capab
Sosul	- activities, OJT - Conference and Cooperative R/D	TFT Workshop,	Autonomous learning capability building	Technical trend and application	Team activities	Team leader, coming rewards	delegation

⑤ Detailed method

Workplace learning is conducted in varieties of ways. One distinct point is that most of organizations include cooperation as social activities as to practice workplace learning. Dongyoung Foods used factory cleaning time to handle issues regarding production and unison between employees. UIC Chicago Hospital composed team for learning through workshop. Making learning team itself took three to four months. Learning through group activities not only accomplish accumulation of knowledge but also sense of belonging to employees. For example, group activities has reduced turnover rate of employee in Yeonwoo Industrial. Adaptation to organization culture for 'easy-landing' of new employee is result of one of group activities as in the Huneed case. In fact, UIC Chicago hospital, Yeonwoo and Huneed cases used stepwise learning program. Depending upon work and job level or progress employees made, they planned systematic program to apply workplace learning.

Utilization of in-house instructor, workshop and group activities confirm that organization prefers workplace learning to be in the boundary of organization rather than to be as an individual capability via independent study. Making OJT or technical manual is one of efforts to keep tacit knowledge of organization within organization. Hanacobi, Miju Autotech, Young Jin and DSP are those organization paid many attention to make manuals. This is a method to accumulate and transferring tacit knowledge within organization. Even DSP and Yeonwoo made unique space aiming for workplace learning. Therefore, our cases show that each organization intends to pursue systematization of workplace learning practice within organization.

⑥ Emphasis (of learning)

Emphasis of learning is what each organization practically wants to attain via workplace learning. Three trends are noticeable. One is to improve present operation. For example, impacts of learning that brings improvement or standardization of production process are immediately visible. They answer present problems. Reminding of necessity of workplace learning practice, management level makes significant efforts on this. In other words, rationalization of production system brings production cost down and increases productivity. Most of our cases confirm this trend.

Other is to accumulate knowledge produced by learning. Circulation of knowledge produced during learning process and keeping it in a form of technical manual or database are efforts to accumulate organizational knowledge and keep an organization

viable. As indicated above in ⑤ detailed method, this trend is related to maintain workplace learning program as one of regular routine of organization.
Another intangible emphasis is contribution of learning to organizational culture. Employees in a continuous learning system naturally are accustomed to organizational culture. Furthermore, workplace learning process itself often makes employees to adapt themselves in an organization more easily.

⑦ Formal learning/ ⑧ Informal learning

Formal and Informal learning items are a form of workplace learning used in each organization. Although distinction between formal and informal is somewhat ambiguous, it draws a line that whether workplace learning activities have a) collectively conducted at fixed time such as lecture b) at outside of organization c) programmed in a way that is not necessarily related to present works or not. Hence, informal workplace learning is more relevant to productivity issues because it is more attached to develop and solve 'on-site' problems. Indeed, most of informal learning takes a form of spot-training.
Since cases we discuss are mostly manufacturing SMEs, this informal workplace learning not only directly relevant to productivity issues but also innovation. Often a learning group in an organization suggests new products or production methods that reduce production costs or generate new revenues. In this sense, informal learning that plays a major role in worker's training for operating production is more important than formal learning.
Indeed, informal workplace learning is more frequent in our cases. One of reason is that workplace learning has recently recognized as one of critical factors that need to be institutionalized for increasing productivity more. As in cases of this study, balancing production and learning practice was one of difficulties that organization has confronted. For SMEs who do not have many resources, it needs a courage to devote their production line to education. Therefore, systematizing workplace learning is challenging for them. Another reason that informal workplace learning is more frequent than formal learning is that informal learning has more specific contents for regular work process. Often employees had lost interests in workplace learning which does not necessarily involve their job. Learning general knowledge may give them more job satisfaction and potentials for productivity. However, for skilled employee in their job, this is another kind of job stress. Finally, skill for job often rest in the hands of individual employee. Therefore, in brain-drain situation, not only organizations lose their human resource but also knowledge resource for production. Namely, often SMEs

are not prepared for workplace learning so that formal learning misses demands of employees.

Once informal learning is institutionalized, innovation is the next subject of workplace learning. Innovation in here means practical tips to change work process which can be shared within organization. It causes collective increase in productivity. Innovation as the other form is making new products or modifying production system such as machine. Innovation here is close to meaning of invention.

⑨ Facilitating factors of implementing learning

This item describes successful factors to implement workplace learning. Needs of organization do not necessarily promise successful practice of the learning. Therefore, the item indicates reasons that led successful implementation of learning practice.

One of characteristic reason is an introduction of incentive system for learning. Organization has constructed systematic evaluation system for workplace learning. Based on this system, organization provides compensation for learning activities. The incentive is the most distinctive in organizations that has chosen learning 'group' activities. Compensation is given to a group rather than to an individual so that each group members are induced and motivated to participate in learning process. In Miju Autotech case, it is observed that even management level also has participated in learning practices making differences.

Second, each organization has drawn significant attention to getting enough time-frame for learning activities and its preparation. Change in production-shift system is common to balance regular work and learning. Outsourcing consultation is another way to prepare efficient and effective application of learning practice.

Lastly, increasing job satisfaction is by-product that boosted successful learning practices. Knowledge learned or created during learning process has applied in their works so that participants are more confident on their works. In addition, during the learning, interaction between employees has also contributed to make organization culture or socialization so that their productivity has increased.

⑩ Attitude

Another way to see reason of successful learning practice is that attitude of employer and employee on learning activities. In employer's side, most cases show that supports from employer is important factor to utilize learning practice and to get positive effects

from learning. All cases researched this part confirm that employer's attitude and recognition on the importance of workplace learning are active and positive. However, some differences are observed between employer's attitudes. In Yuhan-Kimberly, Dongmyoung Foods, UIC Chicago Hospital and Hanacobi, we see that management had a confidence about linkage between workplace learning and productivity. Therefore, they strongly have driven to implement workplace learning practice. However, management level of Miju Autotech, Youngjin and DSP took more cautious about workplace learning. They started to take more active role after satisfying results by workplace learning.

From employee's side, they have shown that they are motivated to learn and increased their job satisfaction through learning practice. Increasing job capability and obtaining knowledge can be immediately used naturally led to increase job concentration. Compensation system that many of our cases introduced is another motivation of workplace learning.

In other words, mutual cooperation is the key to promise successful implication of workplace learning.

B. Problems and solutions of implementing the learning and benchmark factors

<Table IV-3> provides problems and solutions of implementing the learning and benchmark factors. This part is framed with 4 items: challenging factors of workplace learning, influencing workplace learning, driving power to implement workplace learning, and benchmark factors of learning practice.

<Table IV-3> Comparative summary of 10 companies: Problems and solutions of implementing the learning and benchmark factors

Company	Challenging factors of workplace learning	influencing factors to workplace learning	Driving power to implement workplace learning	Benchmark factors of learning practice
Yuhan-Kimberly	- adaptation difficulties in change of working hours - uncertainty about how to evaluate and training needs of employees - diminishing necessity of further learning by learning effects	- 4-group 2-shift system - role of instructor and trainer - humanism philosophy of management - cooperation between employees and management level	- strong will to carry learning project by top management level - mutual trust and cooperation between management level and employees (i.e. job sharing)	- EAP (Employee Assistance for problem) - performance coaching - supports to competence development - regards for female employees
Dongmyung Foods	- no merits of the learning to short-term contingent workers - absence in know-how to mange training hours - learning project limited to noodle producing team - absence of systematic evaluation and compensation system of learning	- quality control of buyer, Ohttugi Co., Ltd - management phiosophy	- will to develop human resources	- Transition of the shift system for production - self-innovation by management level - quality control efforts
UIC Chicago Hospital	- balancing between urgent production priority and learning process - team-based production system reducing inter-team communcation	- introduction of 'new paradigm' model - introduction of detailed job position differentiated by skill level	- leadership and emphasis on human investment by management level	- Timing of inducing learning system - organizational change brought by learning - evaluation and compensation system - working hours shifting system for learning system

Hanacobi	- absence in expert on human development - absence in systematized learning, training system and information - absence of data-base for knowledge transfer - lack of confidence on learning by team leaders	- making technical manual - construction of personnel management (new promotion) system - consultation outsourcing - structural adjustmewnt to overcome crisis	- unconditional supports from management level - emphasis on knowledge-worker	- transition of work shift system for production - construction of learning system
Miju Autotech	- balancing between regular works and learning activities - reluctance to participate in learning from team leaders - brain-drain after skill development	- circulation and making inflow of knowledge - making operating manual		- evaluation, incentive and awarding system - participation by management level in learning process - continuous feedbacks from outside consultants
Youngjin	- absence of systematic manual other than OJT for new employee - absence of evaluation and compenstation system - absence of extended learning materials	- increase in personal job capability - productivity increase	- strong will to implement learning system - evaluation and awarding system	- evaluation and awarding system - CEO's continuous interests and attention on learning activities

DSP	- insufficient experts to teach - disadvantage of location for information network and experts utilization	- support program from government - role of learning team leader		- compensation system - workshop for knowledge sharing (i.e. contest for attained knowledge)
Yeonwoo Industrial	- absence in systematic OJT program fit to job characteristic and position - operating learning after regular working hours	- sharing of knowledge - making learning space separated from work process	practical long-term strategy by management level	- stepwise strategy for knowledge management - institutionalization of learning system
Huneed Technologies	- absence in systematic learning system - insufficient manpower to teach	- developing skilled employee	CEO's confidence on linkage between skill development and company growth	- stepwise strategy for organizational learning - change in organization culture by MBO/Consensus meeting
Sosul	- brain-drain - absence in experts for workplace learning	- government tax returns	Strong investmewnt on spot-training	- systematic learning system - technical manual creation for OJT according to working division

⑪ Challenging factors of workplace learning

This item summarizes factors that have interfered with successful workplace learning. As it has indicated in organizational structure part, each organization is in a different context. Hence, their confronted problems need to be seen in the context of organization's characteristics. In spite of that, some points can be made based on our cases.

First, organizations have experienced lack of human resources or systematic program to manage workplace learning. Inexperience of institutionalized workplace learning has caused to pay costs for 'muddling-through'.

This problem, in particular for SMEs that are relatively small size, accompanies second factor which is balancing between production and learning practice. For SMEs, they are apt to be subjected by market. Therefore, any change in market and demand from their buyer are one of impeding factors to continue systematized efforts to carry workplace learning. For example, decision to change from 3 groups and 2 shift system to 4 groups to 3 shifts system requires a firm confidence and determination to cover present opportunity cost.

Third, fears of brain-drain take important reason to prevent workplace learning from organization. As indicated above, SMEs need determination to carry workplace learning because of limited resource they can afford. If their systematized efforts to improve productivity turned out as a waste of their resource, damages they will get are greater than status quo without workplace learning.

⑫ Influencing factors to workplace learning

This item crystallizes positive influencing factors to conduct workplace learning in spite of challenging factors to implement the learning. Most of factors are grounded on actual results earned by the learning. There are two kinds of factors here. One comes from practitioner level. Organization had conducted successful workplace learning practice acquired future resource for systematized learning practice. Not only organizations had succeeded to grow in-house instructor and supportive team leader but also made future reference for efficient workplace learning such as technical manuals.

For example, Yuhan-Kimberly can adjust SOP and setting of machine according to a work-shift team, eliminating unstandardized operation of machine. To do this, they grow in-house instructor and trainer. Hence, they can utilize these human resources again in the future. Hanacobi and Miju Autotech are cases making manuals. DSP and

Huneed Technology attained decent team leaders who are experts in their works.
In addition, results earned by learning achieved what the learning was initially intended. Contribution to productivity increase not only covers opportunity costs for 'muddling-through' but also cut production cost down. Quality control, circulation of knowledge and detailed teaching materials significantly lowered operation costs. For instance, Dongmyoung foods met to quality control of their clients and succeed to reach efficient production line. UIC Chicago hospital case set rationalized job skill level and position. Miju Autotech and Yeonwoo are cases of showing how information can contribute to productivity increase.

⑬ Driving power to implement workplace learning

This item explains factors that made workplace learning possible. Decisiveness of management level is one of critical factors to decide workplace learning practice. As explained in ⑩ attitude, management had strong will to carry workplace learning based on their management philosophy and supporter of the learning program. Although there are some doubts from employees, management carried their plan and received results by their appropriate interest.

Moreover, government supports to carry workplace learning also gives incentives to carry the learning program. Government provides program to support SMEs' learning program by using incentives such as tax return and rewarding SMEs. This policy from government has solved problems of SMEs. Affordability is one of issues of SMEs to apply workplace learning program. However, SMEs could conduct workplace learning practice by putting their own limited resource because of government supports. However, government supports often are limited to formal learning practice. Since government requests hard evidence of workplace learning, informal workplace learning is often ignored in the subject of supports. This is a problem for SMEs because most of valuable lessons their employees learned came from informal workplace learning rather than formal learning.

⑭ Benchmark factors of learning practice

Our final item indicates benchmark factors from each organization. This is an overview of successful factors to implement workplace learning. Broadly speaking, three points outstand: a) will to change routine of operating production; b) compensating and awarding system by evaluating learning practice; c) long-term plan or

systematizing(or institutionalizing) workplace learning in the organization.
Yuhan-Kimberly and Dongmyung Foods are the model case of showing the will to change routine of operating production. In fact, Dongmyung Foods' CEO benchmarked Yuhan-Kimberly case so that their benchmarking factors are somewhat similar. Briefly, two companies changes into 4 groups and 2-shift system of production to get sufficient time for workplace learning. Notice that they adjusted their system several times to find optimized way to balance production and learning practice. Yuhan-Kimberly also has emphasized and succeeded to construct mutual beliefs between management and employees so that finally brought out best cooperation they could get. For UIC Chicago Hospital, timing of introducing learning system was appropriate to adapt themselves in the vulnerable market. Evaluation and compensation system played role to settle their workplace learning practice. Where learning system is absent, Hanacobi and Yeonwoo Industrial provide good examples of making learning system in the organization. In Youngjin case, CEO's continuous interests need to be underscored. But it is until going under way to see practical result. Miju Autotech and DSP also outstand to apply compensation and rewarding system in the organization. For Yeonwoo and Huneed Techniques, their choice to take stepwise strategy for knowledge management was appropriate considering their challenging factors of workplace learning. Although fear of brain-drain exists, the fact that Sosul has strong will to carry investment on spot-training also draws our attention.

2. Conclusion

Through the reviewing 10cases, it is decisive that all organizations heavily have relied on workplace learning to train their employees, even though some of them have used formal education and training apart from workplace. The goal of their learning is developmental. Some of them aim at developing some basic skills, some the other do creative learning for innovation. As much as organizations evolve, they use workplace learning more strategically. Leadership of management has comprehensive influence on entire process of workplace learning and innovation. The most important thing the leadership should do first is to empower the employees who have cultural deprivation caused by deeply seated sense of powerlessness. When they become motivated, they can find their own ways of learning with some facilitation and information provision.
Learning team or group is the unit of collective learning which facilitates not only individual learning, but sharing their learning and encouraging membership. How to make a good team is critical to make a difference.

Governmental skill scheme was formed in 60's when Korea initiated industrialization which needs providing basic skilled workforce with less time and budget. It was very successful to provided necessary workforce for national development. But, there was almost no consideration of high skill development. It is the time to review the scheme and revise it to fit new era which requires the high skilled based on knowledge and innovation ability. In order to shift the locus of HRD from low skills to high skills, transforming the ways of how to develop human resources is necessary. Formal training is necessary to provide new technology or theoretical knowledge, but it's portion must not be more than 30% of their whole learning. 70% of their time and energy must be used to reflect their experiences and implement it into workplace in order to let their learning improve their performance and innovation ability. However, as mentioned earlier, governmental skill scheme is narrowly focused on formal training. Developing high skilled HR requires more informal and unstructured learning rather than formal and structured training. Informal learning has different natures and processes which are more invisible, then less controllable. Intrinsic motivation is substantially critical to make people involved in the learning. They would learn from the interactions between working and studying at their workplace.

Facilitating factor should be managed carefully to vitalize employees' intrinsic and extrinsic motivation. Extrinsic motivation needs to be organized in the firms' policy. Managing intrinsic motivation matters substantially as more as organization became innovative. The employees would know how to enjoy the process of change, when they get used to their learning experiences.

As descried earlier, the experimental programs which provided SMEs a package composed of consulting, learning place providing, learning contents and subsidizing processing budget seems workable, but needed to be improved. The overall impression is quiet positive. It helped SME's management experience different learning customized to their environment. Some of them make a difference by changing their structure and strategy. But, it should be more flexible to fit differences among SMEs. Great Britain launched similar approaches, such as the skill broker program.

Government skill policy is about to changing the fundamental assumptions and strategies. However, the role of government to play for SMEs's HRD should be expanded and flexible.

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