

Workplace learning in China¹

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Introduction

With the development of knowledge economy, the construct of lifelong learning has been recognized and respected by more and more people in China. Education and training are no longer just the responsibility of schools and other educational institutions, instead, they are becoming a popular phenomenon in the workplace. As is defined, lifelong learning is all learning activities undertaken throughout life, with the aim of improving knowledge, skills, and competences within a personal, civic, social and/or employment-related perspective (European Commission, 2001). Its key characteristic is the centrality of the learner within formal, non-formal and informal learning experiences (European Commission, 2001).

Researchers have elaborated lifelong learning policies and strategies in European Union, US, Japan, Australia, and other developed nations and regions (Department of Education, Mission of the People's Republic of China to European Union, 2009; Wu, 2000; Wu & Zhao, 2002; Zhu, 2008), which influenced some of the developing countries such as China. In China, lifelong learning is becoming popular both in daily life and research field in recent years. It is widely accepted that lifelong learning is beneficial to the comprehensive development of human beings and the building of a learning society (Gu, 2008; Wang, 2000), as well as the sustainable development of business organizations. In recent years, researchers

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began to investigate the situation of lifelong learning of citizens in different areas of China (Deng & Wu, 2007; H. Zhang, 2010). Some of the surveys (H. Zhang, 2010) demonstrate that women in rural areas of Shandong province (middle-east of China) have certain knowledge of lifelong learning and are mostly motivated to engage in lifelong learning for better education of their children. Many of them, however, cannot actually take part in lifelong learning for the lack of organizers, learning materials, teachers, enough spare time and so on. Another research found as many as 86% respondents in a survey conducted in Shanghai intend to be lifelong learners, but they were not satisfied with the policies of lifelong learning and learning society (Deng & Wu, 2007). Surprisingly, few researches have focused on the situations of lifelong learning of employees in business organizations in China, except for a survey about the current situation of lifelong learning of employees in Macao (Li et al., 2009).

As to workplace learning, it is becoming an important component of lifelong learning. There are broad definitions of workplace learning. Mansfield (1991) defined it from the perspective of skills, pointing out that workplace learning was the learning style to develop abilities by learners at the workplace. Billett (1993) thought workplace learning was a way to acquire knowledge and skills at the process of participating real tasks and getting guidance from skilled members. Cunningham (1998) viewed workplace learning as a series of informal interactions when a person tried to help another one.

However, there's a lack of comprehensive research about workplace learning in China. We searched the data-set of Chinese publications using the keyword *workplace learning* and only found fourteen published articles on workplace learning in Mainland China. Most of the papers introduced the construct and gave some detailed explanations of workplace learning as both a new concept and a phenomenon, of which one paper mentioned that there are some different features in the learning environment and learning process in Chinese organizations (J. Zhang, 2010). From the perspective of learning environment, there

are increasing demands from the workplace on learning because of the increasingly intensive interactions among the expanding work content, division of labor, transition of management style and enhancement of communication convenience. Chinese organizations tend to guide employees' workplace learning by linking enterprise efficiency with employee benefits, which as a result enhances the effectiveness of workplace learning outcomes. From the perspective of learning process, intensive work competitions make people aware of the importance of workplace learning, and trigger a self-directed learning. However, the primary concern for workplace learning by employee is whether it would help to achieve the intended personal purpose in the future, which makes learning motivation and interests more pragmatic and utilitarian. Unfortunately, there have been no empirical studies up to date about the motivation of employees and employers to workplace learning, nor systematic description neither about the effects of workplace learning for both employees and employers.

To understand the attitude, motivation of employees towards workplace learning and its potential impact, more empirical studies need to be conducted.

The present study is intended to investigate the current situation of workplace learning and its effects on employees in Chinese organizations. After a brief introduction to the method and samples, this paper reported the analyses of the general attitude of employees towards workplace learning, why employees want to learn at workplace, what they want to learn, what they were learning, and what effects workplace learning could produce on employees' work and life.

Method

Questionnaire survey was conducted to collect the data for the study. The questionnaire consists of 6 parts. The first part asks the respondents about the basic information of their work situation such as ownership of the employer, tenure, type of employment, whether their education matches with their job

and the like. The second part is about what they think about workplace learning. One example of the questions is “Please tell us if you agree or disagree with the following statements – Learning is always necessary, but it might not always be what you might choose to do yourself”. The third part of the questionnaire includes questions about how workplace learning is provided by and used in the respondents’ organization. The fourth part is designed to get information about the respondents’ personal background such as educational level, yearly income and so on. The fifth part investigates the effects of workplace learning and the last part is about the demographic characteristics of the respondents.

Most of the questions are single or multiple choice questions. As to questions about the respondents’ opinions towards workplace learning, 5-point Likert scale is adopted with responses from “1=agree” to “5=disagree”. One Open-ended question is included in the questionnaire in order to provide opportunities for the respondents to express their own opinions, ideas, and any other comments freely about workplace learning and the survey.

Sample

Altogether 1000 questionnaires were distributed by the director of this project with the help of human resource managers of organizations in two types of industries: Banking and manufacturing. 18 companies are sampled from the south, the north, the east, and the middle of China, which represents the geographic characteristics of the organizations. State-owned enterprise (SOEs), private business, and joint-venture are all covered in the sample. 10 to 40 employees are sampled randomly from each organization.

The survey was conducted from April to July, 2010.

Eventually 620 respondents were collected with a response rate of 62%. 546 questionnaires are usable for the analyses after deleting some of the respondents with too many unanswered questions, of

which 280 are from banking industry and the rest 266 are from manufacturing industry.

In the 533 respondents who reported the type of their employment 505 are full-time employees (88.9%), 9 are part-time employees (1.6%), 4 are self-employed (0.7%) and 15 respondents' jobs are on an intermittent, on-call contract basis (2.6%). Except for 40 who didn't indicate their gender, 375 respondents (71%) are female and 153 (29%) are male. The respondents' mean age is 26.73 with a standard deviation of 5.52. The mean tenure of the employees for the current employer is 47.41 months. In the 526 respondents who reported their marital status, 275 (52.3%) are single, 249(47.3%) are married or in a stable partnership and 2 (0.4%) are widowed or divorced. Nearly 30% respondents have completed their college education, 42.5% respondents have completed their junior college education, and above 20% respondents finished high school or technical secondary school education.

187(35.2%) out of 532 respondents informed that their current job matches well with their education and qualification. 110 (20.7%) respondents reported that education and qualification don't matter in their job. 89 (16.7%) respondents reported that the current job demands better education and qualification than they have. 68 (12.8%) respondents were educated and qualified for a different occupation. 46 (8.6%) respondents believe they are better educated and qualified than most people in the kind of job, while 32 (6.0%) respondents have no idea whether their education and qualification match with their current jobs.

With regard to parents' education, most respondents' mother got less education than they themselves did (361 out of 533, 67.7%). 88 (15.5%) respondents' mother have got the same level of education as they did. 60 (11.3%) respondents reported their mother completed more education and training than they have while 24 reported they have no idea what education their mother completed. As to father's education, 279 (61.5%) reported their father got less education than they did. 95 (20.9%) employees' father completed the same education as them. 62 (13.7%) informed that their father completed more education and training

than they did and 18 (3.2%) don't know what education their father completed.

In 529 respondents who reported their yearly income 163 respondents' (30.8%) income falls into the category of 10,001-20,000RMB; 127 respondents' (24.0%) income is between 20,001-30,000 RMB; 89 (16.8%) in the category of 30,001-40,000 RMB; 61 (11.5%) respondents reported their yearly incomes are less than 10,000 RMB and 60 (11.3%) respondents' incomes are between 40,001-60,000 RMB. The respondents with a yearly income of more than 60,000 RMB altogether make up only 5.4% of the respondents.

Findings

1. Attitudes of employees towards workplace learning

In the survey one of the questions we focus on is: what pushes the employee forward to take action of learning at workplace since it costs time and money? What are the general attitudes of employees towards workplace learning? Because different attitudes will lead to different behaviors, we are interested in the attitudes the employees hold towards workplace learning and the factors which affects these attitudes. Do different factors such as industry, ownership of enterprise, type of employment, education-job match, personal background, etc. have any influences on employees' attitudes towards workplace learning?

1.1 Description of employees' attitudes towards workplace learning

Question 10 (consisting of 8 items) and 13(consisting of 10 items) aim at investigating the general attitudes of employees towards workplace learning.

In question 10 the statement "If employers would support more general education (and not just for their jobs) for their employees, more people would want to improve their knowledge and skills" (item 10-6) is the most agreed question (mean=1.47, SD=.72), which shows that employees have relatively

strong desire to acquire new knowledge and skills, either for their jobs or not. The second most agreed statement is “When employees can actively participate in making decisions and solving problems, they want to improve their capacity to do a good job”(item 10-2) (mean=1.59, SD=.73), which indicates that participating in decision-making and problem-solving encourages employees to improve their capacity to work well. About the form of workplace learning, 444 out of 530 (83.8%) respondents agree or moderately agree that “people learn best whilst they are just doing their jobs – they don’t have to take courses to learn more and do their jobs well”(item 10-8). Only 52 (9.2%) respondents disagree or moderately disagree with this statement. “It’s no good waiting for people to decide for themselves – you have to make people learn, whether they want to or not” (item 10-5) is the statement agreed by the least people among the 8 questions. However, still more than half (268 out of 525, 51%) of the respondents agree or moderately agree with it, which implies that employees believe that learning is a “must” rather than an option. This is consistent with the result of item 10-1: 72.4% (386 out of 533) respondents agree or moderately agree that “Learning is always necessary, but not always what you might choose to do yourself. “ Yet more people (441 out of 527, 83.6%) admits that the trouble with work-based learning just lie in that “it’s not really something people want to do, but something they think they ought to do” (see Table 1 for details of responses to question 10).

Having recognized this problem, employees wish to make their own decisions about learning. Most people (480 out of 529, 90.7%) believe that “When people can decide for themselves about learning, they learn more and get better results “(item 13-7)(mean=1.58, SD=.76).

Employees’ attitudes towards the workplace learning are rather positive but with different reasons. Respondents mainly agreed the following statements “Learning inevitably contributes to the productivity and output of employees” (item 13-1) (mean=1.91, SD=1.05) , “Everyone has to keep on learning because

otherwise they risk becoming unemployed” (item 13-2) (mean=1.92, SD=1.09) and “Everyone has to keep on learning because society expects it” (item 13-9) (mean=1.95, SD=1.05). This discloses why employees regard learning as a “must” rather than an option: learning is believed to be beneficial to the productivity and output and consequently, is expected by the society or the employer. Therefore, those who don’t keep on learning may take a risk of being expelled by the organization. In line with this kind of attitudes of employees, it’s no wonder that statement “There is no need to carry on learning once you have finished your initial education and training”(item 13-10) is the one least agreed among others (94 out of 523, 18%)(see Table 2 for details of responses to question 13).

Regarding the situations which offer the best opportunities to learn new things at work “coming in contact with people who have different skills or backgrounds or experiences” is the most selected one, which makes up 16.83% of all the selected items. “When something unexpected is happening and you try to manage by trying things out” is the second most selected one (15.9% of all the selected items). Doing things “not familiar with” is also regarded as a good opportunity to learn new things (15.77% of all the selected items). However, the opportunities offered by “leading other people and telling/teaching them what to do” and “just looking at how people do things and imitating them” seem not so preferable to the employees, with a percentage of 3.47% and 2.83% among all the selected items, respectively. A very few (4 out of 533) respondents reported that they don’t really know how they learn at work. 4 respondents indicated that there are other opportunities for them to learn new things (see Table 3 for details of responses).

As to why and when employees feel encouraged to learn at work investigated by question 12, the survey results show that concrete benefits are the first driver for the employees to learn at work. “Because I know it will bring me concrete benefits (e.g. promotion, higher salary, recognition)” is the most selected

reason (28.15%). The second most selected reason (23.14%) is “because this is the best place to improve job-related knowledge and skills”. When the courses employer provides are really useful for their work, employees also feels encouraged to learn at work (11.53%). The second least reported reason is “because it is easy to learn at the same time as working”(4.86%). Even less respondents reported the reason that the teachers/trainers on the course are good (4.02%). Still another 11 employees admitted that they don’t feel encouraged to learn at work and 7 reported they have other reasons (see Table 4 for details).

1.2 Ownership difference

It is found that employees in the organizations with different ownership have significantly different freedom to choose what they want to learn ($F=4.94, p<0.05$)(see Table 5). Employees in the private sector companies disagree more with the statement “Learning is always necessary, but it might not always be what you might choose to do yourself” (item 10-1) than those who work at other organizations (169 respondents in the sample, mainly from SOEs). Therefore it is not hard to infer that there are more compulsory learning activities in SOEs which could not be chosen by employees themselves. These learning activities are usually organized and executed by the human resource department of the organization in accordance with the requirements of the government.

Employees in different organizations perceive the expectation of the society for workplace learning (item 13-9) differently. Employees in the private sector companies and joint ventures agree significantly more with the statement “Everyone has to keep on learning because society expects it” than those in the “other” (mainly SOEs) organizations($F=3.70, p<0.05$)(see Table 5 and 6). The possible explanation might be that in China private sector companies and joint venture enterprises are more performance-oriented and are competing in a more free market, therefore the employees perceive more pressure as well as more demanding from the market and the society to keep on learning.

1.3 Difference among the type of employment

Analysis finds that self-employed people disagree significantly more with the statement “people learn best whilst they are just doing their jobs –they don’t have to take courses to learn more and do their jobs well” (item 10-8) than those on other employment basis ($F=5.33$ $p<0.05$), which means self-employed respondents believe courses are still necessary for them to do a job well (see Table 7). No significant differences among other types of employment relationship.

1.4 Difference of Education-job match

One of the points which draw the attention of practitioner and researcher is whether the education and qualification of the employee corresponds to his/her job. It is assumed that if the employees perceive that the job requires higher education and qualification than they have, they might have two options. One is to quit the job to get rid of the pressure the work brings to them, while the other is to pursue work-related learning opportunities to meet the requirements of the work.

It is found that whether the job requirement corresponds to the education and qualification of the employee is significantly related with employee’s attitudes towards workplace activities. There are significant differences among the extent of job-education match on the evaluation to the following statements, “When employees can actively participate in making decisions and solving problems, they want to improve their capacity to do a good job”(item 10-2) ($F=3.44$, $p<0.05$) and “people learn best whilst they are just doing their jobs-they don’t have to take courses to learn more and do their jobs well”(item 10-8) ($F=3.21$, $p<0.05$, see Table 8 and Table 9).

Test results show that if the job doesn’t require specific education and qualification, employees who are taking this job agree significantly less with the statement “when employees can actively participate in making decisions and solving problems, they want to improve their capacity to do a good job” than those

who are educated for a different occupation and those who are under- or overqualified for the job. When employees don't know whether their job corresponds to their education and qualification, they agree also significantly less with the above statement than those whose education and qualification matches well with their job, those who are educated for a different occupation and those who are under- or overqualified for their job. So it seems that participation in decision-making and problem-solving is not effective means to encourage them to improve their work-related abilities for those employees whose education and qualification doesn't matter in their job and who has no idea whether their job corresponds to their education and qualification.

Test result also shows if employees are educated and qualified for a different occupation, they disagree significantly more with the statement "People learn best whilst they are just doing their jobs-they don't have to take courses to learn more and do their jobs well". This implies that courses are still necessary for those whose educational knowledge is for another occupation. In other words, for those employees learning in everyday work is not sufficient.

Furthermore, it is found that employees' perception of "In my organization, everyone expects you to take courses sometimes" (item 13-6) and their belief of "Everyone has to keep on learning because society expects it" (item 13-9) varies significantly with different levels of match between their education/qualification and job (for item 13-6, $F=2.64$, $p<0.05$; for item 13-9, $F=3.79$, $p<0.05$, see Table 10 and Table 11).

From Table 10 it could be seen that employees whose job doesn't require specific education and qualification disagree more with the statement "In my organization everyone expects you to take courses sometimes" than the group of education-job match and the group of under-qualification. There is significant difference among these three groups.

From Table 11 it could be concluded that those whose job matches well with their education and qualification agree significantly more with the statement “everyone has to keep on learning because society expects it” than those whose job doesn’t have specific requirement for education and qualification and those who have no idea whether their qualification match with their job requirements. Those whose job has higher demand than their qualification also agree with this statement significantly more than the above latter two groups and those who are educated and qualified for a different occupation.

1.5 Difference of personal background

Gender

For a number of attitudes towards workplace learning, there exist significant differences between female and male employees.

Female employees agree significantly less than male employees with the statement “Learning is always necessary, but it might not always be what you might choose to do yourself”(item 10-1) ($F=6.19$, $p<0.05$) (see Table 12).

For the statement “If employers would support more general education (and not just for their jobs) for their employees, more people would want to improve their knowledge and skills” (item 10-6), there is also significant gender differences. Female employees’ mean score is 1.43 while the male ones’ is 1.57 ($F=3.95$, $p<0.05$). It seems that the female have more interest in general education than the male (see Table 13).

Regarding whether “people who do not keep up their learning should be punished by their employer (e.g. no merit payments or bonus, no promotion, be fired)” (item 13-4) the female have shown more tolerance and agree the statement significantly less than the male ($F=4.91$, $p<0.05$) (see Table 14).

Furthermore, female employees perceive significantly more expectations from the society to keep on

learning (item 13-9) than the male employees do ($F=1.53$, $p<0.05$) (see Table 15).

Education

There are significant differences among employees with different levels of education in their attitudes towards several statements about workplace learning (see Table 16, 17, 18 and 19).

Employees with middle school or lower education agree significantly more than those with high school/technical secondary school education, junior college or college education with punishment conducted by the employers on those who don't keep up learning (investigated by item 13-4) ($F=5.76$, $p<0.05$). In the contrary, employees with high school or technical secondary school education disagree significantly more with punishment than those with other levels of education (see Table 16).

From Table 17 and Table 18 it could be concluded that employees having completed college education perceive more expectation to learn from both within the organization (item 13-6) and the society (item 13-9) than the employees of high school/technical secondary school and junior college education ($F=3.56$, $p<0.05$, and $F=3.49$, $p<0.05$, respectively)

What interesting is employees with middle school or even lower education agree significantly more that there is no need to carry on learning once one have finished the initial education and training than those with high school/technical secondary school, junior college and college education (item 13-10) ($F=2.83$, $p<0.05$). The mean score of employees on this item with middle school or lower education, high school or technical secondary school, junior college, college, master and above education is 2.82, 4.07, 4.10, 4.10 and 3.80 respectively. Except for the masters and doctors, the higher education the employees have, the more they believe it's necessary to carry on learning (see Table 19).

Place of growth

There is significant difference among employees grown up in different places in the attitudes towards

the statement “If employers would support more general education (and not just for their jobs) for their employees, more people would want to improve their knowledge and skills ” (item 10-6). Generally, those who grew up in an isolated place or a village or small town in the country agree significantly more with this statement than those who grew up in a regional town or a big city ($F=4.74$, $p<0.05$) (see Table 20). It could be concluded that the employees grown up in an isolated place or a village/small town have more desire for general education.

As far as punishment is concerned on those who don't keep up learning, employees who grew up in an isolated place disagree significantly more with the punishment than those who grew up in a regional town or a big city (investigated by item 13-4). Those who grew up in a village or small town in the country disagree significantly more with it than those who grew up in a big city ($F=3.77$, $p<0.05$, see Table 21).

Parent's Education

There is difference in respondents' attitudes towards workplace learning between those whose parents have different levels of education.

For example, respondents whose mother got more education than they did agree significantly less that participating in decision-making and problem-solving encourages one to improve their capacity to do a good job (item 10-2) than those whose mother got less or the same education with they did ($F=3.32$, $p<0.05$) (see Table 22). Respondents whose mother got less education than they did disagree more than the others that there is no need to carry on learning once one has finished the initial education ($F=4.63$, $p<0.05$) (see Table 23).

2. The current status of workplace learning

2.1 Workplace learning opportunities offered by employers

The most training opportunities employers offer are “Courses that are held in special places on the company premises to improve job-related knowledge and skills ” (57%), “Courses to make sure that all employees have basic skills (literacy and numeracy)” (32%) and “Spontaneous meetings with your colleagues to resolve new and special issues and problems ” (25.1%).

Many respondents participate “Manuals and materials that you can use to learn about new equipment, software and procedures” (20.1%), “Short workshops/seminars now and again that last for one day or less” (23.1%), “Courses offered by trade unions or staff associations to improve knowledge about employees’ rights (e.g. wage bargaining, health and safety, employee participation)” (22%) and “E-Learning courses that employees can follow at their desk”(12.5%). In addition, 18.9% of the surveyed employees said that employers in the workplace do not provide any training (as illustrated in Table 24).

2.2 Time for workplace learning

Most employers provide employees with work-related education and training, which focus on job-related knowledge and skills. So, do these training and courses take up extra time of employees? 36.8% respondents report that courses are usually offered off the working time, 13.7% of those surveyed think courses offered by the employer are always during working time. 35.5% respondents take part in work-related courses more often than not in working time and only 7.6% say their courses are always off working time.

2.3 Motivation and content of workplace learning

In the past twelve months, 34.2% respondents chose courses for purely personal reasons, 31.9% chose to attend courses and got support from employers in some way, but 22.5% of the surveyed employees “chose to follow in their own time and which were not supported by employers”. The ratios of employers requiring and advising employees to attend courses were 25.5% and 21.8% respectively. Above

all, the results show that employees have a strong sense of participation in workplace learning and could get some support from their employers (As illustrated in Table 25).

As to course contents, respondents report courses “directly or closely related to my current job” (44.7%), “related to a job I would like to have in the future” (34.6%) and “related to my job as well as to my personal development” (29.5%). However, some employees think courses “useful for my work, but not really essential” (22.5%) and some represent courses are “related to more general employment and work condition issues affecting all people in paid work” (11.9%). Conversely, a few surveyed employees indicate that courses are not related with their work, and they think courses are “not really work-related, more for my general education” (17.6%) or “just for personal pleasure” (7.1%) (As illustrated in Table 26).

2.4 Comparison between compulsory and voluntary learning

The survey contains two different workplace learning situations, including compulsory learning required by employers and voluntary learning participated by employees, of which there are some similarities and differences in the content of and reasons for learning.

For workplace learning required by employers, the surveyed employees have attended “induction courses for new employees” (48.2%), “regular training courses provided by employers at the workplace” (32.6%), “training related to technological or organizational change” (30.4%), “preparation course for a promotion or a new post in the organization” (23.6%), “general courses to improve basic skills” (7.5%), “short workshops/seminars lasting one day or less in the department” (6.6%), “courses leading to a formal qualification provided by colleges, polytechnics, universities or private training companies” (5.3%), “E-learning modules that employees can follow at their desk or at home” (4.4%). 19% respondents report “I have never taken part in any work-related courses since I have been working here” and 12.6% report “I

have not been required to take any work-related courses” since I have been with current employer.

As for voluntary learning situation, the surveyed employees have attended “induction courses for new employees” (37.9%), “general courses to improve basic skills” (35.3%), “regular training courses provided by employers at the workplace” (30.4%), “preparation course for a promotion or a new post in the organization” (20%), “short workshops/seminars lasting one day or less in the department” (17.9%), “courses leading to a formal qualification provided by colleges, polytechnics, universities or private training companies” (16.7%), “E-learning modules that employees can follow at their desk or at home” (8.1%). In addition, 9.5% respondents say “I have never taken part in any work-related courses”(See Table 27).

From the view of reasons for workplace learning, the main reasons for compulsory learning are “it isn’t really compulsory, but I know that I need to keep my knowledge and skills up to date, in case I decide to or have to look for a job with another employer” (34.2%) and “it wasn’t my employer who required me to do so-it was myself, because I really wanted to learn, so I made myself do it” (28.4%). However, the main reasons for voluntary learning are “it is my responsibility to make sure I can do my job well” (40.5%) and “I know that I need to keep my knowledge and skills up to date, in case I decide to or have to look for a job with another employer” (34.8%) (See Table 28).

Therefore, no matter what the type of learning it may be, either compulsory or voluntary learning, “induction courses for new employees” and “regular training courses provided by employers at the workplace” are main elements of workplace learning. The need to update knowledge and skills to prepare themselves for another job is the first place reason for employees’ workplace learning.

3. The effects of workplace learning

3.1 The benefits of workplace learning

Most of the respondents think they have benefited from learning at workplace in some ways. 39.6 % of the respondents report that they can do the job better through workplace learning. Also, employees think they have benefited from workplace learning in personal growth and self-identity (39.4% of the respondents), sense of autonomy and judgment (38.5%), confidence and self-respect (36.8%), job security (24.0%), salary rise (22.0%), appreciation and recognition from colleagues (13.9%), sense of belongingness to the organization (6.9%), promotion (3.2%), etc (see Table 29).

Chi-square tests were conducted to analyze the differences between/among respondent groups. It shows that there is no significant difference between male and female employees (see Table 30). Also, no significant difference was found among ownership systems (see Table 31) in the evaluation of the benefits of workplace learning. Nevertheless, respondents reported differently in some demographic ways.

There is significant difference in the evaluation of the benefits of workplace learning between married and unmarried employees. More unmarried employees than married employees report that they got more confidence and self-respect from workplace learning ($\chi^2=7.168$, $p<.01$) (see Table 32 and Table 33). Unmarried employees are usually younger than the married, which means they are less proficient in skills. Through workplace learning, the unmarried employees may improve their skills, which in turn raise their confidence and self-respect.

3.2 Positive effects of workplace learning on employees' knowledge and skills

Through organized courses or in everyday work, workplace learning has positive effects on the improvement of employees' knowledge and skills. Most of the respondents think workplace learning *through organized courses* has a positive effect on their knowledge and skills in the areas such as: getting on well with colleagues (80.8% of the respondents), working in a team (75.6%), solving problems (73.7%), expressing oneself well (72.9%), communication skills (71.3%), health and safety issues at work

(68.7%), appreciating other cultures and values (68.5%), confidence in public situations (67.5%), preparing reports, documents etc. (66.1%), using IT (software, computer, WWW) (62.4%), and making decisions (61.0%). Meanwhile, a large percent of respondents report workplace learning *in everyday work* has a positive effect on their knowledge and skills in getting on well with colleagues (76.4% of the respondents), working in a team (70.5%), solving problems (74.8%), expressing oneself well (74.5%), communication skills (75.9%) and so on (see Table 35).

Chi-square tests were conducted to analyze the differences between/among respondent groups. The results demonstrate that employees in different groups report differently about the effects of workplace learning on their knowledge and skills.

Gender

There is significant difference in the evaluation of positive effects of workplace learning on employees' knowledge and skills between male and female employees. More female than male employees report that *through organized courses* they improved their abilities and skills in making decisions and interpersonal communication ($\chi^2=6.391$, $p<.05$; $\chi^2=4.547$, $p<.05$, respectively). Also, more female than male employees think workplace learning in everyday work has positive effect on their ability to use foreign language ($\chi^2=5.166$, $p<.05$) (see Table 36 and Table 37).

Marriage

There is significant difference in the evaluation of positive effects of workplace learning on employees' knowledge and skills between married and unmarried employees. More married than unmarried employees believe that they can get on well with colleagues through workplace learning *in everyday work* ($\chi^2=7.089$, $p<.01$); while more unmarried than married employees report that they can learn health and safety issues at work *in everyday work* ($\chi^2=4.176$, $p<.05$) (see Table 38 and Table 39).

Married and unmarried employees tend to pay attention to different issues in everyday work, in such a way that married employees focus on work issues and unmarried employees focus on life issues.

3.3 Positive effects of workplace learning on the quality of employees' life

Through *organized courses* or in everyday work, workplace learning has positive effects on the quality of employees' life. Most respondents report workplace learning through organized courses has a positive effect on the quality of their life in working environment (77.0% of the respondents), living in a multicultural society (68.3%), work-life balance (68.1%), health and lifestyle (e.g. diet, sports) (61.4%), family and personal life (60.7%) and so on. Meanwhile, a large percent of the respondents think workplace learning *in everyday life* also has a positive effect on the quality of their life in these areas (the percentages are 73.3%, 69.1%, 72.1%, 76.9% and 75.1% respectively) (see Table 40).

We conducted Chi-square tests to analyze the differences between/among respondent groups. No significant difference was found between married and unmarried employees (see Table 41).

Gender

There is significant difference in the evaluation of positive effects of workplace learning on the quality of employees' life between male and female employees. More female than male employees believe that workplace learning in everyday work can improve their connections with the natural environment and their community life and voluntary activities ($\chi^2=3.860$, $p<.05$; $\chi^2=4.319$, $p<.05$, respectively) (see Table 42 and Table 43).

4. Conclusion

In general, driven by the pressure from outside (e.g. unemployment risk, expectation from the organization and the society) and concrete benefits, Chinese employees have relatively strong desire to improve their knowledge and skills despite of the type of organizations, employment relations, as well as

job levels. However, the problem of workplace learning lies precisely in this passive attitude—learning is not something that employees want to, but something they think they ought to. The employees believe that if they could make their own decision about learning, they could learn more and get better results.

Employees have a strong sense of participation in workplace learning and could get some support from employers. On the other side, most employers provide training or courses about job-related knowledge and skills, which are usually beyond working time. Workplace learning consists of compulsory learning and voluntary learning, of which induction courses for new employees and regular training courses provided by employers at the workplace are main contents. The need to update knowledge and skills to prepare for another job is the first place reason for employees' workplace learning.

As for the effects of workplace learning, most of the employees believe that they have benefited from workplace learning in some ways, such as doing the job better, personal growth and self-identification, sense of autonomy and judgment and so on. Also, employees report that workplace learning either through organized courses or in everyday work has positive effects on both their knowledge and skill and the quality of life.

Nevertheless, significant differences between/among different demographic and institutional groups should draw much attention.

There exists significant difference in employees' attitudes towards workplace learning between the female and male. The female are more interested in the general education and perceive more expectation from the society to keep on learning than the male. For those who don't keep on learning, female employees show more tolerance and agree significantly less with punishment on them conducted by the employers. Besides, more female employees report that through organized courses they improved their abilities and skills in making decisions and interpersonal communication. Also more female employees

believe that workplace learning in every work has positive effect on their ability to use foreign languages, and their connections with the nature environment and their community life and voluntary activities

As a result of workplace learning, more unmarried employees report that they have improved confidence and self-respect and that they can learn health and safety issues at work in everyday work. While more married employees believe that they can get on well with colleagues through workplace learning in everyday work.

A number of personal factors exhibit differences in employees' attitudes towards workplace learning. With regard to educational level, except for those with master or doctoral degrees, the higher employees' educational level is, the more need they perceive to carry on learning. Besides, parents' education is also found to be related to employees' attitudes towards workplace learning. Employees grown up in an isolated place and a village or small town in the country have more desire to acquire general education than those grown up in a regional town and a big city.

It is also found that there are differences in employees' attitudes towards workplace learning depending on the extent of correspondence between employees' education/qualification and their jobs. Employees whose education and qualification match well with their jobs and whose jobs require better education and qualification than they have agree significantly more that one should keep on learning after he has finished the initial education.

The learning activities provided by enterprises with different ownership are significantly different. Generally, there is more compulsory learning in the SOEs than in the private sector companies. Employees in the enterprises with different ownership perceive the expectation from society differently. Employees from private sector and joint ventures perceive more expectation from society than those in other enterprises (mainly SOEs).

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Appendix

Table 1 Statistics of responses to question 10/C3

Item	Statement	Mean	SD
		(ascending)	
10-6	If employers would support more general education (and not just for their jobs) for their employees, more people would want to improve their knowledge and skills.	1.47	.72
10-2	When employees can actively participate in making decisions and solving problems, they want to improve their capacity to do a good job.	1.59	.73
10-8	People learn best whilst they are just doing their jobs – they don't have to take courses to learn more and do their jobs well.	1.80	1.02
10-7	The trouble with work-base learning is that it's not really something people want to do, but something they think they ought to do.	1.82	.97
10-3	Employers have the right to insist that employees follow certain courses and obtain certain qualifications.	1.88	1.00
10-4	People have to be able to choose freely what, how and when they want to learn, otherwise they will not want to participate in work-related education and training.	2.27	1.24
10-1	Learning is always necessary, but not always what you might choose to do yourself.	2.29	1.40
10-5	It's no good waiting for the people to decide for themselves – you have to make people learn, whether they want to or not.	2.73	1.31

Table 2 Statistics of responses to question 13/D8

Item	Statement	Mean	SD
		(ascending)	
13-7	When people can decide for themselves about learning, they learn more and get better results.	1.58	.76
13-1	Learning inevitably contributes to the productivity and output of employees.	1.91	1.05
13-2	Everyone has to keep on learning because otherwise they risk becoming unemployed.	1.92	1.09
13-9	Everyone has to keep on learning because society expects it.	1.95	1.05
13-3	My employer offers such attractive learning opportunities that most of us do really want to take them up.	2.11	1.16
13-5	The more you force people to learn, the less they will want to learn and the worse the results will be.	2.14	1.16
13-8	My employers insist that their employees follow training courses at regular intervals.	2.23	1.05
13-6	In my organization, everyone expects you to take courses sometimes.	2.26	1.09
13-4	People who do not keep up their learning should be punished by their employer (e.g. no merit payments or bonus, no promotions, be fired).	3.39	1.41
13-10	There is no need to carry on learning once you have finished your initial education and training.	4.04	1.29

Table 3 Statistics of opportunities to learn new things at work

11-D1 Opportunity to learn new things at work	Frequency (descending)	Percent of responses (%)	Percent of respondents (%)
When coming in contact with people who have different skills or backgrounds or experiences	238	16.8	45.2
When something unexpected is happening and you try to manage by trying things out	225	15.9	42.7
When doing things you are not familiar with(e.g. using new machines or equipment)	223	15.8	42.3
When you hear something that draws your interest and you start looking for more information about it	199	14.1	37.8
When observing and analysing situations (e.g. in meetings at work)	168	11.9	31.9
When you remember mistakes you have made in the past and you try not to repeat them	104	7.4	19.7
When you are given a goal to achieve at work	96	6.8	18.2
When doing things together with colleagues	64	4.5	12.1
When leading other people and telling/teaching them what to do	49	3.5	9.3
Just by looking at how people do things and imitating them	40	2.8	7.6
Other	4	.3	.8
I don't really know how I learn at work	4	.3	.8
Total	1414	100	268.3

Table 4 Statistics why and when employees feel encouraged to learn at work.

12/D2 Why and when employees feel encouraged to learn at work	Frequency (descending)	Percent of responses (%)	Percent of respondents (%)
Because I know it will bring me concrete benefits (e.g. promotion, higher salary, recognition)	371	28.1	69.6
Because this is the best place to improve job-related knowledge and skills	305	23.1	57.2
When the courses my employer provides are really useful for my work.	152	11.5	28.5
When my colleagues give me ideas and advice	134	10.2	25.1
When my boss gives me ideas and advice	129	9.8	24.2
Simply because I enjoy learning	92	7.0	17.3
Because it is easy to learn at the same time as working	64	4.9	12.0
When the teachers/trainers on the courses are good	53	4.0	9.9
To be honest, I don't feel encouraged to learn at work	11	.8	2.1
Other:	7	.5	1.3
Total	1318	100	247.3

Table 5 Ownership difference in item 13-3

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
Item 13-3	1	211	2.20	Between groups	13.50	4	3.38	2.51 *	-				
	2	67	1.73	Within groups	680.36	506	1.35		*	-			2<1
	3	18	2.22	Total	693.86	510					-		
	4	49	1.96									-	
	5	166	2.17							*			2<5

Notes: group 1= private sector companies, group 2= public sectors, group 3= non-profit organizations, group 4=joint ventures, group 5=others

*p<0.05

Table 6 Ownership difference in item 13-9

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
Item 13-9	1	218	1.80	Between groups	16.15	4	4.04	3.70 *	-				
	2	66	2.08	Within groups	564.92	517	1.09		-				
	3	19	1.84	Total	581.07	521					-		
	4	50	1.78									-	
	5	169	2.18						*		*		1<5,4<5

Notes: group 1= private sector companies, group 2= public sectors, group 3= non-profit organizations, group 4=joint ventures, group 5=others

*p<0.05

Table 7 Difference of type of employment in item 10-8

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups			LSD
									1	2	3	
Item 10-8	1	491	1.78	Between groups	16.21	3	5.40	5.33 *	-			
	2	9	1.56	Within groups	520.27	513	1.01			-		
	3	3	4.00	Total	536.48	516			*	*	-	1<3,2<3
	4	14	2.07								*	4<3

Notes: group 1=full time, group 2= part time, group 3=self employed, group 4=on an intermittent or on-call contract basis

*p<0.05

Table 8 Whether the job corresponds to the education and qualification in item 10-2

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups					LSD
									1	2	3	4	5	
Item 10-2	1	177	1.59	Between groups	9.05	5	1.81	3.44*	-					
	2	65	1.40	Within groups	267.86	509	.53			-				
	3	87	1.49	Total	276.91	514					-			

4	46	1.46								-		
5	108	1.72						*	*	*	-	2<5,3<5, 4<5
6	32	1.91						*	*	*	*	1<6,2<6, 3<6, 4<6

Notes: group 1=match well, group 2=not really, educated and qualified for a different occupation, group 3=job demands better education and qualification, group 4=better educated and qualified, group 5=education and qualification doesn't matter, group 6=have no idea

*p<0.05

Table 9 Whether the job corresponds to the education and qualification in item 10-8

groups	N	mean		Sum of Squares	df	Mean Square	F	Groups					LSD
								1	2	3	4	5	
1	177	1.70	Between groups	16.17	5	3.24	3.21*	-					
2	66	2.24	Within groups	514.68	511	1.01		*	-				1<2
Item 10-8	3	89	1.81	Total	530.86	516			*	-			3<2
4	46	1.74							*		-		4<2
5	107	1.72							*			-	5<2
6	32	1.66							*				6<2

Notes: group 1=match well, group 2=not really, educated and qualified for a different occupation, group 3=job demands better education and qualification, group 4=better educated and qualified, group 5=education and qualification doesn't matter, group 6=have no idea

*p<0.05

Table 10 Whether the job corresponds to the education and qualification in item 13-6

groups	N	mean		Sum of Squares	df	Mean Square	F	Groups						LSD
								1	2	3	4	5	6	
1	177	2.13	Between groups	15.60	5	3.12	2.64 *	-						
2	67	2.33	Within groups	598.20	507	1.18			-					
Item 13-6	3	86	2.09	Total	613.79	512				-				
4	46	2.37									-			
5	107	2.55						*	*			-		1<5, 3<5
6	30	2.37											-	

Notes: group 1=match well, group 2=not really, educated and qualified for a different occupation, group 3=job demands better education and qualification, group 4=better educated and qualified, group 5=education and qualification doesn't matter, group 6=have no idea

*p<0.05

Table 11 Whether the job corresponds to the education and qualification in item 13-9

groups	N	mean		Sum of Squares	df	Mean Square	F	Groups						LSD
								1	2	3	4	5	6	

	1	179	1.83	Between groups	20.73	5	4.15	3.79 *	-	
	2	67	2.06	Within groups	556.32	508	1.10		-	
<i>Item 13-9</i>	3	86	1.69	Total	577.06	513		*	-	3<2
	4	46	2.02						-	
	5	107	2.20					*	*	- 1<5,3<5
	6	29	2.34					*	*	- 1<6,3<6

Notes: group 1=match well, group 2=not really, educated and qualified for a different occupation, group 3=job demands better education and qualification, group 4=better educated and qualified, group 5=education and qualification doesn't matter, group 6=have no idea

*p<0.05

Table 12 Gender difference in item 10-1

	Gender	N	Means		Sum of squares	df	Mean squares	F
<i>Item 10-1</i>	Female	367	2.38	Between groups	12.01	1	12.01	6.19*
	Male	151	2.05	Within groups	1001.27	516	1.94	
				Total	1013.28	517		

*p<0.05

Table 13 Gender difference in item 10-6

	Gender	N	Means		Sum of squares	df	Mean squares	F
<i>Item 10-6</i>	Female	365	1.43	Between groups	2.09	1	2.10	3.95*
	Male	150	1.57	Within groups	272.30	513	.53	
				Total	274.39	514		

*p<0.05

Table 14 Gender difference in item 13-4

	Gender	N	Means		Sum of squares	df	Mean squares	F
<i>Item 13-4</i>	Female	355	3.47	Between groups	9.69	1	9.69	4.91*
	Male	146	3.16	Within groups	984.49	499	1.97	
				Total	994.18	500		

*p<0.05

Table 15 Gender difference in item 13-9

	Gender	N	Means		Sum of squares	df	Mean squares	F
<i>Item 13-9</i>	Female	363	1.86	Between groups	11.18	1	1.68	1.53*
	Male	147	2.18	Within groups	552.59	507	1.10	
				Total	563.77	508		

*p<0.05

Table 16 Education difference in item 13-4

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
<i>Item 13-4</i>	1	10	2.20	Between groups	44.05	4	11.01	5.76 *	-				
	2	116	3.84	Within groups	953.50	499	1.91		*	-			1<2
	3	212	3.33	Total	997.55	503			*	*	-		1<3,2>3
	4	156	3.24						*	*		-	1<4,2>4
	5	10	2.90							*			2>5

Notes: group 1=middle school or lower education, group 2= high school/technical secondary school education, group 3=junior college education, 4=college education, 5=master education, 6=PhD education

* $p<0.05$

Table 17 Education difference in item 13-6

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
<i>Item 13-6</i>	1	11	2.00	Between groups	16.62	4	4.51	3.56 *	-				
	2	121	2.26	Within groups	591.10	507	1.17			-			
	3	214	2.11	Total	607.72	511					-		
	4	155	2.53							*	*	-	2<4,3<4
	5	11	2.18										

Notes: group 1=middle school or lower education, group 2= high school/technical secondary school education, group 3=junior college education, 4=college education, 5=master education, 6=PhD education

* $p<0.05$

Table 18 Education difference in item 13-9

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
<i>Education</i>	1	11	1.45	Between groups	15.04	4	3.76	3.49 *	-				
	2	120	1.94	Within groups	547.64	508	1.08				-		
	3	217	1.81	Total	562.68	512						-	
	4	155	2.16							*	*	-	2<4,3<4
	5	10	2.30										

Notes: group 1=middle school or lower education, group 2= high school/technical secondary school education, group 3=junior college education, 4=college education, 5=master education, 6=PhD education

* $p<0.05$

Table 19 Education difference in item 13-10

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups				LSD
									1	2	3	4	
<i>Education</i>	1	11	2.82	Between groups	18.24	4	4.56	2.83 *	-				
	2	120	4.07	Within groups	816.00	506	1.61		*	-			1<2
	3	213	4.10	Total	834.24	510			*		-		1<3

	4	157	4.10					*	-	1<4
	5	10	3.80							

Notes: group 1=middle school or lower education, group 2= high school/technical secondary school education, group 3=junior college education, 4=college education, 5=master education, 6=PhD education

* $p < 0.05$

Table 20 Difference of place of growth in item 10-6

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups			LSD
									1	2	3	
Item 10-6	1	80	1.33	Between groups	7.35	3	2.45	4.74 *	-			
	2	184	1.37	Within groups	266.00	515	.52		-			
	3	143	1.59	Total	273.35	518			*	*	-	1<3,2<3
	4	112	1.60						*	*		1<4,2<4

Notes: group 1= an isolated place, group 2= a village or small town in the country, group 3= a regional town, group 4= a big city

* $p < 0.05$

Table 21 Difference of place of growth in item 13-4

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups			LSD
									1	2	3	
Item 13-4	1	76	3.76	Between groups	22.03	3	7.34	3.77 *	-			
	2	175	3.47	Within groups	970.08	498	1.95		-			
	3	143	3.35	Total	992.11	501			*	-		1>3
	4	108	3.08						*	*		1>4,2>4

Notes: group 1= an isolated place, group 2= a village or small town in the country, group 3= a regional town, group 4= a big city

* $p < 0.05$

Table 22 Difference of mother's education in item 10-2

	groups	N	mean		Sum of Squares	df	Mean Square	F	Groups			LSD
									1	2	3	
Item 10-2	1	60	1.80	Between groups	5.35	3	1.78	3.32*	-			
	2	349	1.55	Within groups	275.71	514	.55		*	-		1>2
	3	85	1.80	Total	281.05	517			*	-		1>3
	4	24	1.88									

Notes: group 1=mother with more education than I, group 2=mother with less education than I, group 3=mother with the same education with I, group 4=have no idea

* $p < 0.05$

Table 23 Difference of mother's education in item 13-10

groups	N	mean	Sum of	df	Mean	F	Groups	LSD
--------	---	------	--------	----	------	---	--------	-----

					Squares		Square		1	2	3
	1	60	3.80	Between groups	22.42	3	7.47	4.63*	-		
<i>Item</i>	2	344	4.18	Within groups	817.55	507	1.61		*	-	1<2
<i>13-10</i>	3	84	3.86	Total	839.97	510			*	-	3<2
	4	23	3.39						*		4<2

Notes: group 1=mother with more education than I, group 2=mother with less education than I, group 3=mother with the same education with I, group 4=have no idea

* $p < 0.05$

Table 24 Workplace learning opportunities offered by employers

14-C1	opportunities offered by employers	Percentage
	Courses that are held in special places on the company premises to improve job-related knowledge and skills	57%
	Courses to make sure that all employees have basic skills (literacy and numeracy)	32%
	Spontaneous meetings with your colleagues to resolve new and special issues and problems	25.1%
	Short workshops/seminars now and again that last for one day or less	23.1%
	Courses offered by trade unions or staff associations to improve knowledge about employees' rights	22%
	Manuals and materials that you can use to learn about new equipment, software and procedures	20.1%
	E-Learning courses that employees can follow at their desk	12.5%
	Employers in the workplace do not provide any training.	18.9%

Table 25 Education and training in the past twelve months

18/A12	Education and training in the past twelve months	Percentage
	Chose to follow for purely personal reasons	34.2%
	I chose and my employer supported in some way	31.9%
	My employer required of me	25.5%
	Chose to follow in my own time and which were not supported by employers	22.5%
	My employer advised to me	21.8%
	I have not followed any education and training courses of any kind	14.3%

Table 26 Courses in the past twelve months

19/A13	Courses in the past twelve months	Percentage
	Directly or closely related to my current job	44.7%
	Related to a job I would like to have in the future	34.6%
	Related to my job as well as to my personal development	29.5%
	Useful for my work, but not really essential	22.5%
	Not really work-related, more for my general education	17.6%
	Related to more general employment and work conditions issues affecting all people in paid work	11.9%
	Just for personal pleasure	7.1%

Table 27 Workplace learning content

Workplace learning content	voluntary learning	compulsory learning
Induction courses for new employees	37.9%	48.2%
Regular training courses provided by employers at the workplace	30.4%	32.6%
Preparation course for a promotion or a new post	20.0%	23.6%
General courses to improve basic skills	35.3%	7.5%
Short workshops/seminars lasting one day or less	17.9%	6.6%
Courses leading to a formal qualification	16.7%	5.3%
E-learning modules that employees can follow at desk home	8.1%	4.4%
Training related to technological or organizational change		30.4%

Table 28 Reasons for workplace learning

Reasons for workplace learning	voluntary learning	compulsory learning
It is my responsibility to make sure I can do my job well	40.5%	
I know that I need to keep my knowledge and skills up to date, in case I decide to or have to look for a job with another employer	34.8%	
It isn't really compulsory, but I know that I need to keep my knowledge and skills up to date, in case I decide to or have to look for a job with another employer		34.2%
It wasn't my employer who required me to do so-it was myself, because I really wanted to learn, so I made myself do it		28.4%

Table 29 The benefits of workplace learning

The benefits of workplace learning	Responses		Percent of Cases
	N	Percent	
Doing my job better	211	16.7%	39.6%
Personal growth and self-identity	210	16.6%	39.4%
Sense of autonomy and judgment	205	16.2%	38.5%
Confidence and self-respect	196	15.5%	36.8%
Job security	128	10.1%	24.0%
Salary rise	117	9.2%	22.0%
Appreciation and recognition from colleagues	74	5.8%	13.9%
Sense of belonging to the organization	37	2.9%	6.9%
I do not think I have benefited at all	36	2.8%	6.8%
I have not learned at work	32	2.5%	6.0%
Promotion	17	1.3%	3.2%
Other	2	0.2%	0.4%
Total	1265	100.0%	237.3%

Table 30 Benefits of workplace learning cross-tabulation by gender

	Gender	Total
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		Female	Male	
I have not learned at work	Count	23	8	31
	% within Gender	6.3%	5.3%	
I do not think I have benefited at all	Count	27	9	36
	% within Gender	7.3%	6.0%	
Salary rise	Count	74	38	112
	% within Gender	20.1%	25.3%	
Sense of autonomy and judgment	Count	135	65	200
	% within Gender	36.7%	43.3%	
Doing my job better	Count	144	60	204
	% within Gender	39.1%	40.0%	
Job security	Count	87	38	125
	% within Gender	23.6%	25.3%	
Confidence and self - respect	Count	141	49	190
	% within Gender	38.3%	32.7%	
Appreciation and recognition from colleagues	Count	56	17	73
	% within Gender	15.2%	11.3%	
Sense of belonging to the organization	Count	24	12	36
	% within Gender	6.5%	8.0%	
Personal growth and self-identity	Count	147	57	204
	% within Gender	39.9%	38.0%	
Promotion	Count	10	6	16
	% within Gender	2.7%	4.0%	
Other	Count	1	1	2
	% within Gender	0.3%	0.7%	
Total	Count	368	150	518

Table 31 Benefits of workplace learning cross-tabulation by ownership

		Ownership					Total
		Private	Public	NPO	MNC	Others	
I have not learned at work	Count	15	3	2	2	10	32
	% within Ownership	6.7%	4.5%	10.5%	3.9%	5.8%	
I do not think I have benefited at all	Count	13	2	2	5	14	36
	% within Ownership	5.8%	3.0%	10.5%	9.8%	8.1%	
Salary rise	Count	44	13	3	17	40	117
	% within Ownership	19.6%	19.7%	15.8%	33.3%	23.3%	
Sense of autonomy and judgment	Count	86	24	5	24	66	205
	% within Ownership	38.2%	36.4%	26.3%	47.1%	38.4%	
Doing my job better	Count	82	27	6	21	75	211
	% within Ownership	36.4%	40.9%	31.6%	41.2%	43.6%	
Job security	Count	49	20	2	10	47	128
	% within Ownership	21.8%	30.3%	10.5%	19.6%	27.3%	
Confidence and self - respect	Count	95	24	7	18	52	196
	% within Ownership	42.2%	36.4%	36.8%	35.3%	30.2%	
Appreciation and recognition from colleagues	Count	37	6	4	10	17	74
	% within Ownership	16.4%	9.1%	21.1%	19.6%	9.9%	
Sense of belonging to the organization	Count	15	2	1	4	15	37
	% within Ownership	6.7%	3.0%	5.3%	7.8%	8.7%	
Personal growth and self - identity	Count	94	24	10	22	60	210
	% within Ownership	41.8%	36.4%	52.6%	43.1%	34.9%	
Promotion	Count	6	1	1	3	6	17
	% within Ownership	2.7%	1.5%	5.3%	5.9%	3.5%	
Other	Count	0	0	0	0	2	2
	% within Ownership					1.2%	

Total	Count	225	66	19	51	172	533
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Table 32 Benefits of workplace learning cross-tabulation by marriage

		Marriage			Total
		Unmarried	Married	Devoiced	
I have not learned at work	Count	20	11	0	31
	% within Marriage	7.4%	4.5%		
I do not think I have benefited at all	Count	20	16	0	36
	% within Marriage	7.4%	6.5%		
Salary rise	Count	50	62	0	112
	% within Marriage	18.6%	25.3%		
Sense of autonomy and judgment	Count	114	84	1	199
	% within Marriage	42.4%	34.3%	50.0%	
Doing my job better	Count	95	106	2	203
	% within Marriage	35.3%	43.3%	100.0%	
Job security	Count	66	58	0	124
	% within Marriage	24.5%	23.7%		
Confidence and self-respect	Count	85	105	0	190
	% within Marriage	31.6%	42.9%		
Appreciation and recognition from colleagues	Count	35	38	0	73
	% within Marriage	13.0%	15.5%		
Sense of belonging to the organization	Count	18	18	0	36
	% within Marriage	6.7%	7.3%		
Personal growth and self-identity	Count	116	87	1	204
	% within Marriage	43.1%	35.5%	50.0%	
Promotion	Count	9	7	0	16
	% within Marriage	3.3%	2.9%		
Other	Count	0	1	0	1
	% within Marriage	0.0%	0.4%		
Total	Count	269	245	2	516

Table 33 Chi-square test of confidence and self-respect by marriage

confidence and self-respect	Married	Count	85	$\chi^2=7.168, p<.01$
		% within Marriage	30.90%	
	Unmarried	Count	105	
		% within Marriage	42.20%	

Table 34 Benefits of workplace learning cross-tabulation by education level

		Education level						Total
		Middle School or below	High School /technical	Junior College	college	Master	Doctor or above	
I have not learned at work	Count	0	8	11	9	2	0	30
	% within Education		6.5%	4.9%	5.9%	18.2%		
I do not think I have benefited at all	Count	0	7	13	14	1	1	36
	% within Education		5.6%	5.8%	9.2%	9.1%	100.0%	
Salary rise	Count	6	26	51	31	2	0	116
	% within Education	54.5%	21.0%	22.6%	20.3%	18.2%		
Sense of autonomy and judgment	Count	4	48	81	67	4	0	204
	% within Education	36.4%	38.7%	35.8%	43.8%	36.4%		
Doing my job better	Count	5	48	94	57	5	1	210
	% within Education	45.5%	38.7%	41.6%	37.3%	45.5%	100.0%	
Job security	Count	2	30	53	42	0	0	127
	% within Education	18.2%	24.2%	23.5%	27.5%			
Confidence and self - respect	Count	6	41	84	59	4	1	195
	% within Education	54.5%	33.1%	37.2%	38.6%	36.4%	100.0%	
Appreciation and recognition from colleagues	Count	1	23	29	19	1	0	73
	% within Education	9.1%	18.5%	12.8%	12.4%	9.1%		
Sense of belonging to the organization	Count	0	2	17	15	3	0	37
	% within Education		1.6%	7.5%	9.8%	27.3%		
Personal growth and self - identity	Count	1	48	99	58	3	0	209
	% within Education	9.1%	38.7%	43.8%	37.9%	27.3%		
Promotion	Count	2	3	9	3	0	0	17
	% within Education	18.2%	2.4%	4.0%	2.0%			
Other	Count	0	0	0	1	0	0	1
	% within Education				0.7%			
Total	Count	11	124	226	153	11	1	526

Table 35 Positive effects of workplace learning on employees' knowledge and skills

	Through organized courses			In everyday work		
	Responses		Percent of Cases	Responses		Percent of Cases
	N	Percent		N	Percent	
Getting on well with colleagues	400	8.8%	80.8%	285	8.6%	76.4%
Working in a team	374	8.2%	75.6%	263	8.0%	70.5%

Solving problems	365	8.0%	73.7%	279	8.4%	74.8%
Expressing myself well	361	7.9%	72.9%	278	8.4%	74.5%
Communication skills	353	7.7%	71.3%	283	8.6%	75.9%
Health and safety issues at work	340	7.4%	68.7%	233	7.0%	62.5%
Appreciating other cultures and values	339	7.4%	68.5%	237	7.2%	63.5%
Confidence in public situations	334	7.3%	67.5%	253	7.7%	67.8%
Preparing reports, documents etc.	327	7.2%	66.1%	220	6.7%	59.0%
Using machines and technology	309	6.8%	62.4%	215	6.5%	57.6%
Making decisions	302	6.6%	61.0%	222	6.7%	59.5%
Using IT (software, computers, WWW)	296	6.5%	59.8%	225	6.8%	60.3%
Doing calculations, including budgets	285	6.2%	57.6%	191	5.8%	51.2%
Using foreign languages	128	2.8%	25.9%	90	2.7%	24.1%
Other	54	1.2%	10.9%	33	1.0%	8.8%
Total	4567	100.0%	922.6%	3307	100.0%	886.6%

Table 36 Positive effects of workplace learning on employees' knowledge and skills cross-tabulation by gender

		Through organized courses			In everyday work		
		Gender		Total	Gender		Total
		Female	Male		Female	Male	
Getting on well with colleagues	Count	283	108	391	202	75	277
	% within Gender	82.3%	78.3%		76.5%	75.0%	
Using foreign languages	Count	88	38	126	53	34	87
	% within Gender	25.6%	27.5%		20.1%	34.0%	
Health and safety issues at work	Count	237	94	331	163	64	227
	% within Gender	68.9%	68.1%		61.7%	64.0%	
Making decisions	Count	195	98	293	150	65	215
	% within Gender	56.7%	71.0%		56.8%	65.0%	
Appreciating other cultures and values	Count	240	91	331	166	64	230
	% within Gender	69.8%	65.9%		62.9%	64.0%	
Doing calculations, including budgets	Count	195	83	278	133	53	186
	% within Gender	56.7%	60.1%		50.4%	53.0%	
Communication skills	Count	257	90	347	202	75	277
	% within Gender	74.7%	65.2%		76.5%	75.0%	
Preparing reports, documents etc.	Count	225	91	316	153	61	214
	% within Gender	65.4%	65.9%		58.0%	61.0%	
Confidence in public situations	Count	241	88	329	181	68	249
	% within Gender	70.1%	63.8%		68.6%	68.0%	
Using IT (software, computers, WWW)	Count	213	80	293	155	66	221
	% within Gender	61.9%	58.0%		58.7%	66.0%	
Solving problems	Count	260	98	358	192	80	272
	% within Gender	75.6%	71.0%		72.7%	80.0%	
Working in a team	Count	265	101	366	185	70	255
	% within Gender	77.0%	73.2%		70.1%	70.0%	
Using machines and technology	Count	206	97	303	143	67	210
	% within Gender	59.9%	70.3%		54.2%	67.0%	
Expressing myself well	Count	253	100	353	199	72	271
	% within Gender	73.5%	72.5%		75.4%	72.0%	
Other	Count	33	21	54	21	12	33
	% within Gender	9.6%	15.2%		8.0%	12.0%	
Total	Count	344	138	482	264	100	364

Percentages and totals are based on respondents.

Table 37 Chi-square test of positive effects of workplace learning on employees' knowledge and skills by gender

Through organized courses	Making decisions	Female	Count	195	$\chi^2=6.391, p<.05$
			% within Marriage	56.7%	
	Male	Count	98		
		% within Marriage	70.0%		
In everyday work	Communication skills	Female	Count	257	$\chi^2=4.547, p<.05$
			% within Marriage	74.7%	
	Male	Count	90		
		% within Marriage	65.2%		
In everyday work	Using foreign languages	Female	Count	53	$\chi^2=5.166, p<.05$
			% within Marriage	20.1%	
	Male	Count	34		
		% within Marriage	34.0%		

Table 38 positive effects of workplace learning on employees' knowledge and skills cross-tabulation by marriage

		Through organized courses				Total	In everyday work		
		Marriage			Unmarried		Marriage		Devoiced
		Unmarried	Married	Devoiced			Unmarried	Married	
Getting on well with colleagues	Count	201	187	2	390	159	115		
	% within Marriage	81.0%	81.3%	100.0%		82.4%	68.5%	100.0%	
Using foreign languages	Count	67	58	0	125	51	36		
	% within Marriage	27.0%	25.2%	0.0%		26.4%	21.4%	0.0%	
Health and safety issues at work	Count	170	157	2	329	106	118		
	% within Marriage	68.5%	68.3%	100.0%		54.9%	70.2%	100.0%	
Making decisions	Count	158	131	2	291	112	100		
	% within Marriage	63.7%	57.0%	100.0%		58.0%	59.5%	100.0%	
Appreciating other cultures and values	Count	166	163	1	330	118	110		
	% within Marriage	66.9%	70.9%	50.0%		61.1%	65.5%	50.0%	
Doing calculations, including budgets	Count	140	135	1	276	94	90		
	% within Marriage	56.5%	58.7%	50.0%		48.7%	53.6%	50.0%	
Communication skills	Count	174	169	2	345	145	129		
	% within Marriage	70.2%	73.5%	100.0%		75.1%	76.8%	100.0%	
Preparing reports, documents etc.	Count	172	141	1	314	110	102		
	% within Marriage	69.4%	61.3%	50.0%		57.0%	60.7%	50.0%	
Confidence in public situations	Count	160	165	2	327	126	120		
	% within Marriage	64.5%	71.7%	100.0%		65.3%	71.4%	100.0%	
Using IT (software, computers, WWW)	Count	148	143	1	292	117	103		
	% within Marriage	59.7%	62.2%	50.0%		60.6%	61.3%	50.0%	
Solving problems	Count	192	163	2	357	141	128		
	% within Marriage	77.4%	70.9%	100.0%		73.1%	76.2%	100.0%	
Working in a team	Count	198	165	2	365	138	115		
	% within Marriage	79.8%	71.7%	100.0%		71.5%	68.5%	100.0%	
Using machines and technology	Count	150	151	1	302	100	109		
	% within Marriage	60.5%	65.7%	50.0%		51.8%	64.9%	50.0%	
Expressing myself well	Count	190	160	2	352	143	126		
	% within Marriage	76.6%	69.6%	100.0%		74.1%	75.0%	100.0%	
Other	Count	31	22	0	53	17	16		
	% within Marriage	12.5%	9.6%	0.0%		8.8%	9.5%	0.0%	
Total	Count	248	230	2	480	193	168		

Percentages and totals are based on respondents.

Table 39 Chi-square test of positive effects of workplace learning on employees' knowledge and skills by marriage

In everyday work	Getting on well with colleagues	Married	Count	159	$\chi^2=7.089, p<.01$
			% within Marriage	82.4%	
	Unmarried	Count	115		
		% within Marriage	68.5%		
Health and safety issues at work	Married	Count	106	$\chi^2=4.176, p<.05$	
			% within Marriage		54.9%
	Unmarried	Count	118		
		% within Marriage	70.2%		

Table 40 Positive effects of workplace learning on the quality of employees' life

	Through organized courses			In everyday work		
	Responses		Percent of Cases	Responses		Percent of Cases
	N	Percent		N	Percent	
Positive working environment	345	15.2%	77.0%	244	12.9%	73.3%
Living in a multicultural society	306	13.5%	68.3%	230	12.2%	69.1%
Work-life balance	305	13.5%	68.1%	240	12.7%	72.1%
Health and lifestyle (e. g. diet, sports)	275	12.1%	61.4%	256	13.6%	76.9%
Family and personal life	272	12.0%	60.7%	250	13.2%	75.1%
Connection with the natural environment	254	11.2%	56.7%	221	11.7%	66.4%
Leisure and recreation	230	10.1%	51.3%	212	11.2%	63.7%
Community life and voluntary activities	226	10.0%	50.4%	199	10.5%	59.8%
Other	54	2.4%	12.1%	35	1.9%	10.5%
Total	2267	100.0%	506.0%	1887	100.0%	566.7%

Table 41 Positive effects of workplace learning on the quality of employees' lives cross-tabulation by marriage

		Through organized courses				Total	In everyday work		
		Marriage			Unmarried		Marriage		Devoiced
		Unmarried	Married	Devoiced			Unmarried	Married	
Connection with the natural environment	Count	130	118	1	249	115	102	10	
	% within Marriage	56.0%	57.6%	100.0%		67.3%	66.7%	100.0%	
Health and lifestyle (e. g. diet, sports)	Count	144	126	1	271	132	117	10	
	% within Marriage	62.1%	61.5%	100.0%		77.2%	76.5%	100.0%	
Living in a multicultural society	Count	160	141	1	302	115	109	10	
	% within Marriage	69.0%	68.8%	100.0%		67.3%	71.2%	100.0%	
Work - life balance	Count	153	145	1	299	116	117	10	
	% within Marriage	65.9%	70.7%	100.0%		67.8%	76.5%	100.0%	
Leisure and recreation	Count	127	97	0	224	110	95	0	
	% within Marriage	54.7%	47.3%	0.0%		64.3%	62.1%	0.0%	
Community life and voluntary activities	Count	114	105	0	219	97	98	0	
	% within Marriage	49.1%	51.2%	0.0%		56.7%	64.1%	0.0%	
Family and personal life	Count	134	131	0	265	119	125	0	
	% within Marriage	57.8%	63.9%	0.0%		69.6%	81.7%	0.0%	
Positive working environment	Count	178	161	1	340	120	119	10	
	% within Marriage	76.7%	78.5%	100.0%		70.2%	77.8%	100.0%	
Other	Count	29	23	0	52	17	18	0	
	% within Marriage	12.5%	11.2%	0.0%		9.9%	11.8%	0.0%	
Total	Count	232	205	1	438	171	153	0	

Percentages and totals are based on respondents.

Table 42 Positive effects of workplace learning on the quality of employees' lives cross-tabulation by gender

		Through organized courses			In everyday work		
		Gender		Total	Gender		Total
		Female	Male		Female	Male	
Connection with the natural environment	Count	170	78	248	144	73	217
	% within Gender	54.5%	62.4%		64.3%	73.0%	
Health and lifestyle (e. g. diet, sports)	Count	191	79	270	172	77	249
	% within Gender	61.2%	63.2%		76.8%	77.0%	
Living in a multicultural society	Count	216	85	301	153	71	224
	% within Gender	69.2%	68.0%		68.3%	71.0%	
Work - life balance	Count	209	89	298	159	74	233
	% within Gender	67.0%	71.2%		71.0%	74.0%	
Leisure and recreation	Count	152	72	224	137	68	205
	% within Gender	48.7%	57.6%		61.2%	68.0%	
Community life and voluntary activities	Count	152	67	219	128	67	195
	% within Gender	48.7%	53.6%		57.1%	67.0%	
Family and personal life	Count	188	77	265	169	75	244
	% within Gender	60.3%	61.6%		75.4%	75.0%	
Positive working environment	Count	239	100	339	163	76	239
	% within Gender	76.6%	80.0%		72.8%	76.0%	
Other	Count	29	23	52	19	16	35
	% within Gender	9.3%	18.4%		8.5%	16.0%	
Total	Count	312	125	437	224	100	324

Percentages and totals are based on respondents.

Table 43 Chi-square test of positive effects of workplace learning on the quality of employees' life by gender

In everyday work	Connection with the natural environment	Female	Count	144	$\chi^2=3.860, p<.05$
			% within Marriage	64.3%	
	Male	Count	73		
		% within Marriage	73.0%		
Community life and voluntary activities	Community life and voluntary activities	Female	Count	128	$\chi^2=4.319, p<.05$
			% within Marriage	57.1%	
	Male	Count	67		
		% within Marriage	67.0%		