

Training Expenditures and Practices: Findings from the Netherlands

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This study consists of two parts. Present and expected developments in the field of training and development in work organizations are being studied, with specific attention to their consequences for the knowledge and skills (competencies) of training specialists. A survey among a select group of respondents attempted to gain an insight into the costs of and participation in training activities by employees in work organizations.

Keywords: HRD Trends, Survey Study, Comparative Study

In the 1980s the Faculty of Educational Science & Technology conducted the 'HRD in the Netherlands' (BEDON) study (Mulder, Akkerman & Bentvelsen, 1989). Since that time there have been many changes in the field of HRD (Streumer, Van der Klink, & Van de Brink, 1999) due to trends and developments within organizations as well as in society. There has not, however, been much research conducted into the impact of these new trends and developments on the training function. Consequently, the gap between training reality and theory development in the field of training has not yet been bridged. This was the reason for the Faculty of Educational Science & Technology of the University of Twente to decide to conduct the BEDON study once again together with the Faculty of Technology and Management. The results of the first part-study (Kwakman, Van der Heijden, Streumer, Wognum, & Van Zolingen, 2001) will be reported separately. The results of the survey are presented in this paper.

Research Questions

The following research questions are central to this part of the BEDON study:

(1) To what extent was there participation in training activities within companies in the year 1998 and what costs were involved?; (2) To what extent is this participation subject to change (situation year 2002)?; and (3) To what extent can participation and costs be ascribed to developments in work organizations and the training function within these organizations?

The term training activities refers to a wide range of interventions in the field of training and development of personnel within work organizations, including learning within development paths, on-the-job and off-the-job training, self-study activities and forms of 'learning while working'.

Method

Research Population. This part of the study made use of a targeted sample survey. Our own data files, which are compiled from a selection of respondents from the NVvO file [Dutch Association of Training Officers], a selection from the O&O file [Training & Development Journal] and a selection from the TOPOS file (alumni of the Faculty of Educational Science & Technology employed in training positions), were used to select the names of people who hold management positions in the world of training and personnel policy. This involved a sample survey of 180 people. All these people were telephoned by a research assistant and asked if they would be prepared to take part in the study; a total of 150 people were willing to do so. They were all sent questionnaires with an accompanying letter. Upon receipt of the questionnaire a total of 15 people immediately informed us that on reflection they were unable to participate in the study. From the remaining total of 135 people, after reminders 50 questionnaires were returned (37% response)

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Data Collection. For the data collection a written questionnaire was used that had been developed to be able to answer the research questions listed above. The first and second research questions (To what extent was there participation in training activities within companies in the year 1998 and what costs were involved? To what extent is this participation subject to change –situation year 2002-?) were developed for this purpose into a number of sub-questions, which were divided into a ‘participation’ part and a ‘costs’ part.

The sub-questions for participation are as follows:

1. In which type of training activities have employees participated (reference date 1998) and is an increase or a decrease in the participation expected in the training activities mentioned (reference date 2002)?
2. How can the training activities mentioned under 1 best be characterized (on-the-job versus off-the-job, internal versus external, time invested within versus outside working hours, participation of men versus women)?
3. In which substantive training domains have employees participated (reference date 1998) and is an increase or decrease in participation expected in the above-mentioned training domains (reference date 2002)?
4. To what extent are the strategic goals of the organization of importance when participating in training activities (reference date 1998) and is an increase or decrease in that importance expected (reference date 2002)?
5. What type of training providers conducted the training activities (reference date 1998) and is an increase or decrease expected in the type of training providers mentioned (reference date 2002)?

The sub-questions for costs are as follows:

6. How large is the budget for training activities and what percentage of the gross wage bill does that involve (reference date 1998)?
7. What types of training costs have been included in the budget calculations mentioned under question 6?

A questionnaire was drawn up based on the research questions and sub-questions. This questionnaire consisted of three parts: a part relating to general details (type of official and level of education, branch of industry and sector to which the organisation belongs, etc.), a part in which questions were raised about ‘participation’, and finally, a part dealing with ‘costs’.

Analysis. The data were entered in an SPSS data file and analyzed with the aid of descriptive analysis techniques and crosstabs. Problems relating to scoring the analysis of the open questions and the classification of continuous variables were dealt with in the project team and, where necessary, unambiguous scoring rules were drawn up to avoid differences in interpretation.

Results

The results will be dealt with in line with the three parts mentioned above that comprise the questionnaire.

General Data. Fifty respondents completed the questionnaire: 34 men and 16 women. Of the respondent group, 67% are part of senior management; 28% of middle management and 4% have a position as director. Of the respondents, 84% have full-time employment, and 16% a part-time job. Of the respondents, 56% have had a university education, 32% have gone through higher professional education, 6% senior secondary vocational education, and of 6% the level of education is unknown.

The companies where the respondents are employed operate in the following branches: 11 companies (22%) fall under ‘industry’, 2 companies (4%) are involved in the ‘construction industry’, or are technical contractors, 8 companies (16%) are occupied in ‘trade or the hotel and catering sector’, 6 companies (12%) belong to the ‘transport, storage and communication’ category, 13 companies (26%) provide commercial services, while 10 companies (20%) are engaged in the ‘other services’ branch. Of the above-mentioned companies, 41 (82%) are in the profit sector, and 9 (18%) the non-profit sector. The company size (in employee numbers) 0-100 is not found among companies that are part of the ‘industry’ branch; among ‘other services’ the company size 101-500 is missing. The largest companies (3001 and above) are found most frequently in the commercial services category. The companies are fairly equally divided as regards numbers over the various categories of branches.

The companies taking part in the study can in general be characterized as large companies (the average number of employees is 3054). This applies even more so when taking into consideration the fact that at least 32% of the respondents completed the question about numbers of employees for the unit where they work, or for which they have full or partial responsibility. Of the respondents, 24 % completed the questionnaire from the perspective of the entire organization (both national and international), 44% from the perspective of the organization at national level, 18% for that part of the organization where the respondent works and 14% for the part of the organization for which he has full or partial responsibility.

Participation

Question 1: In which Type of Training Activities have Employees Participated? The questionnaire included a total of 10 types of training activities in which employees had participated in 1998: long, medium or short training, one or two-day activities, short sessions of a few hours' duration, short instruction provided informally on-the-job, self-study, learning while working, learning in a development path, and others. For each of the training activities, employees were asked if they had participated (yes, no, don't know) and whether participation was expected to increase (remain the same, decrease, increase) (reference date 2002). The respondents were allowed to tick more than one training activity. It can be deduced from the data that short training programmes with fewer than 10 sessions were the most frequently used (98%), closely followed by short one or two-day activities, such as a conference or workshop (96%). Learning while working, where employees themselves try something out, learn the ropes or practise a new activity, also had a high score (91%).

The respondents expressed the expectation that learning within development paths, such as job rotation and management development, would experience the strongest growth (57%). Following some way behind were 'learning while working' (trying out new activities oneself, learning the ropes on new activities), with 43% of the respondents believing that this training activity would increase and, more or less equal, with 39% and 38% respectively, 'informal, short instruction and coaching, mainly on-the-job, and 'self-study'

Question 2: How can the Training Activities Mentioned under 1 best be Characterised (on-the-job versus off-the-job, internal versus external, time invested within versus outside working hours, participation of men versus women)? The respondents were asked to express as a percentage the proportion of training conducted on the job or off it, internal versus external training, training within and outside working hours and the participation of men and women. In addition, the respondents gave an estimate of the percentage of employees who had participated in training in 1998. The results show that the most training (65%) still takes place off the job, 46% of training is provided at an external location. The research results indicate that 70% of the training enjoyed by employees takes place during working hours. The percentage of training that is attended by men is almost twice as great as that by women (66% and 34% respectively). The results further show that 62% of the total number of employees about whom the respondents reported had participated in training activities in 1998.

Question 3: In which Substantive Training Domains have Employees Participated (reference date 1998) and is an Increase or Decrease in Participation Expected in the above-mentioned Training Domains (reference date 2002)? In the questionnaire, a total of 14 substantive training domains were identified, in which employees had participated in the training activities. These included sector and branch-specific training, communication skills, personal effectiveness, quality assurance, computer usage and automation and internal company organization. Table 1 reflects these substantive domains and the respondents' answers have been incorporated in it, with a distinction being made between participation in 1998 and the expected decrease or growth up to 2002. The respondents were allowed to give more than one answer.

From the results in table 1, it can be deduced that both the sector and branch-specific training programs and the training programs in the field of management, enterprise and policy occur frequently (in 94% and 93% respectively of the companies on which the respondents reported), followed at a slight distance behind by training programs in the field of verbal communication skills, and computer usage and automation (both 89%). The respondents expected the greatest increase in training in the field of personal effectiveness (56%) and personal growth (56%), while a sharp increase is also expected in training activities in the field of management, enterprise and policy (45%) and marketing, sales and public relations (42%).

Question 4: To what Extent are the Strategic Goals of the Organisation of Importance when Participating in Training Activities (reference date 1998) and is an Increase or Decrease in that Importance Expected (reference date 2002)? In the questionnaire, the strategic goals were broken down into eight specific goals that may be of importance for participation in training activities (including effective deployment of personnel, meeting quality standards, organizational development, and profit increase). The respondents were asked to what extent these goals were of importance for participation in training programs in 1998, and to what extent they are expected to become more or less important up to the year 2002. Table 2 shows the average and standard deviations from the results, where respondents were allowed to give more than one answer. It can be deduced from the results in this table that being able to deploy personnel effectively in 1998 in particular was an important strategic goal for training participation in the responding organizations (M=4.04 on a scale of 1 - very unimportant - to 5 - very important -, SD = .88). The 'meeting quality standards' strategic goal also had a high score (M=3.98, SD=1.00). The respondents did not differ significantly from each other in respect of the importance of these two strategic goals (p>.05). This is

the case, however, for the strategic goals of 'organizational development' and 'product innovation'. Respondents who mentioned these as important strategic goals for training participation in 1998 differed significantly from the respondents who indicated that 'being able to deploy personnel effectively' was important for their organization in 1998 ($p = .02$ and $p = .03$ respectively).

Table 1. *Participation by Employees in 1998 in Training Activities per Training Domain and Expectation of Increase or Decrease until 2002, Measured on a Scale from 1 = very unimportant to 5 = very important (more than one answer possible)*

Training domain	Participation				Development in participation			
	Yes (%)	No (%)	Don't know (%)	N Total.	Remains the same (%)	Decrease (%)	Growth (%)	N Total
Verbal communication skills	41 (89)	4 (9)	1 (2)	46	22 (61)	1 (3)	13 (36)	36
Written communication skills	36 (78)	9 (20)	1 (2)	46	24 (77)	1 (3)	6 (19)	31
Language skills (Dutch/ modern languages)	38 (81)	8 (17)	1 (2)	47	21 (64)	1 (3)	11 (33)	33
Personal effectiveness	38 (81)	9 (19)	-	47	14 (44)	-	18 (56)	32
Management, enterprise and policy	43 (93)	2 (4)	1 (2)	46	21 (55)	-	17 (45)	38
Personnel, education and training	32 (70)	10 (22)	3 (7)	46	22 (81)	1 (4)	4 (15)	27
Quality, working conditions and environment	38 (81)	5 (11)	4 (9)	47	23 (72)	2 (6)	7 (22)	32
Internal company organization	29 (63)	14 (30)	3 (7)	46	18 (90)	-	2 (10)	20
Marketing, sales and PR	32 (70)	12 (26)	2 (4)	46	13 (54)	1 (4)	10 (42)	24
Personal development	31 (67)	12 (26)	3 (7)	46	11 (41)	1 (4)	15 (56)	27
Business accounting	33 (73)	10 (22)	2 (4)	45	20 (83)	-	4 (17)	24
Computer usage and automation	42 (89)	5 (11)	-	47	17 (47)	6 (17)	13 (36)	36
Technology and maintenance	29 (62)	13 (28)	5 (11)	47	18 (82)	1 (5)	3 (14)	22
Sector and branch-specific training	44 (94)	1 (2)	2 (4)	47	24 (63)	-	14 (37)	38

N= 50

With the exception of the 'other strategic goals' column, respondents expected a significant increase in the importance of all strategic goals up to 2002 ($p < .05$). For 'effective deployment of personnel' and 'meeting quality standards', for example, the average expected for 2002 is 4.62 and 4.18 respectively ($SD = .72$ and $SD = .84$ respectively). These are rated significantly higher in importance than was the case in 1998 ($M = 4.04$ and 3.98 respectively, $SD = .88$ and $SD = 1.00$ respectively, $p = .00$). Which strategic goals were considered to be the most important does not, however, depend on the branch of industry or sector (profit or non-profit) to which the respondents' company belongs, with the exception of the 'market share' strategic goal, where significant differences between branches were observed ($\chi^2 = .18$).

Table 2. *Importance of Strategic Goals for Training Participation in 1998 and Expected Importance in 2002*

Strategic goals	Importance in 1998		Importance in 2002	
	M (SD)	N	M (SD)	N
Effective deployment of personnel	4.04 (.88)	47	4.62 (.72)	45
Meeting quality standards	3.98 (1.00)	46	4.18 (.84)	44
Organisational development	3.64 (.90)	47	3.91 (.86)	44
Profit increase	3.50 (1.21)	46	3.67 (1.27)	43
Increase in market share	3.44 (1.18)	43	3.70 (1.26)	40
Improvement in labour relations	3.18 (1.02)	44	3.42 (1.07)	43
Product innovation	3.34 (1.15)	41	3.50 (1.20)	38
Internationalisation	2.36 (1.28)	44	2.78 (1.46)	40
Other	4.50 (.71)	2	4.50 (.71)	2

N=50

Question 5: What type of Training Providers conducted the Training Activities (reference date 1998) and is an Increase or Decrease expected in the Type of Training Providers (reference date 2002)? The questionnaire distinguished six types of organisation offering training, including regional training centers, higher vocational colleges, universities, private training agencies, and branch organizations, in addition to the in-house training department. A remainder category ('other') was also identified. The respondents were asked to indicate which providers had conducted the training activities in 1998 (choice of answers: yes, no, don't know) and to what extent they expected the share of such organisations to increase or decrease (in percentage terms) up to 2002. The respondents were allowed to give more than one answer. These results are presented in Table 3.

Table 3: Percentage Conducted by Training Providers in 1998 and Expected to be Conducted in 2002

Training providers	Conducted in 1998			N	Expected decrease/growth until 2002				N
	Yes (%)	No (%)	Don't know (%)		Remains the same (%)	Decrease (%)	Increase (%)		
Reg. Training centers	26 (59)	17 (39)	1 (2)	44	15 (75)	1 (5)	4 (20)	20	
Vocational colleges	33 (70)	12 (26)	2 (4)	47	15 (63)	2 (8)	7 (29)	24	
Universities	25 (53)	21 (45)	1 (2)	47	13 (81)	-	3 (19)	16	
Training Agencies	42 (91)	4 (9)	-	46	15 (45)	-	18 (55)	33	
Branch organization	31 (67)	13 (28)	2 (4)	46	15 (60)	-	10 (40)	25	
In-house Training Dept	39 (85)	7 (15)	-	46	12 (43)	2 (7)	14 (50)	28	
Other	8 (10)	-	-	8	2 (33)	1 (17)	3 (50)	6	

N=50

From the data in table 3, it can be seen that training activities in 1998 were provided principally by private training agencies (91%) and the in-house training department (85%). An increase in the provision of training activities is expected for both providers by 50% and 55% respectively of the respondents. For the remaining categories of training providers, the majority of the respondents expected the provision of activities to remain the same: 75% of the respondents believed that to be the case for regional training centers, 63% for institutions of higher professional education, 81% for universities and 60% for branch institutions.

Costs

Question 6: How Large is the Budget for Training Activities and What Percentage of the Gross Wage Bill does that Involve (reference date 1998)? The respondents were first of all asked to indicate how large the budget was in 1998 for all imaginable forms of training activities in their organization. They were then asked what costs were actually incurred in total in 1998 for all imaginable training activities. At the same time, the respondents were also asked to fill in the budget and the actual costs for the entire organization (both national and international), the organization at national level, the organizational unit where the respondent was employed, the organizational unit for which the respondent was responsible. The respondents were allowed to complete the questions for one or more organizational units, depending on the information they had available. Both the budgets and the costs had to be stated in multiples of Euro 1,000.

Judging by the respondents' reactions, it appears that they found both questions extremely difficult. Only a section of the respondents managed to answer in part one or both questions. In total, 11 respondents (22%) entirely abandoned attempts to complete both questions. The maximum number of respondents per part of the two questions was 18 (for the question relating to the budget for the national part of the organisation). This indicates the fact that the respondents are not well informed about the costs involved in training programmes or that the financial 'training accounting' at many companies is not in order. Standard deviations have been calculated for the training budgets and costs. The high standard deviations show that the budgets available for education and training and the resources invested in them vary very greatly. One important factor here is that company size also varies greatly, and some respondents mentioned the training budgets of the whole multinational (national and international), without breaking them down. Since, moreover, there is insufficient insight into the numbers of employees who have participated in education and training in the relevant companies, these amounts have very little meaning. For these reasons (scant reliability of the data, insufficient insight into the investments per trainee, etc.), it was not possible for the questions relating to training budgets and the resources actually invested to be answered adequately.

The respondents were further asked to indicate what percentage of the gross wage bill, including employer's expenses, was in their opinion spent on training activities in 1998. They were also able to answer this question for the whole organization (both national and international), the entire organization at national level, the organizational unit where the respondent worked, the organizational unit for which the respondent was responsible. When the percentage was unknown, they were able to indicate that too; nine respondents did so. From the data, it can be concluded that work organizations spend on average between 2.29% and 3.38% of their gross wage bill on training programs. There, however, are large differences between companies and business units. There were extreme percentages of 8% and 0.2% mentioned. Many of the 50 respondents did not know what percentage of the wage bill was spent on training programs at the different organizational levels and units. One common problem - which also had an influence here on the percentage of the gross wage bill spent on all the forms of education and training mentioned by the respondents - is that work organizations differ in what they understand by 'gross wage bill'. This may 'pollute' the percentage found in this study.

Question 7: What types of training costs have been included in the budget calculations mentioned in question 6? Another problem that plays a role in determining the costs invested in education and training is that there is

ambiguity as regards the types of costs that are included in the calculation of training costs. The respondents were therefore asked to indicate which types of training costs they believed were included in the calculations for determining the amounts invested in education and training. Table 4 contains the results of this question. From these results, it can be deduced that the costs are mainly trainer-linked (according to 84% of the respondents). As far as the other types of costs are concerned, fewer respondents were of the opinion that these are a part of the training costs: 65% thought that the costs for training facilities must be included in the calculation, 64% believed that this applies to student-linked costs, 57% for costs for training development, and only 49% included in administrative and management costs.

Table 4: Types of Costs included in the Calculation of the Percentage of the Gross Wage Bill spent on all Imaginable Forms of Training Activities in 1998.

Types of costs	Yes (%)	No (%)	Don't know (%)	Total N
Student-linked costs	23 (64)	11 (31)	2 (6)	36
Trainer-linked costs	31 (84)	4 (11)	2 (5)	37
Administrative and Management costs	17 (49)	16 (46)	2 (6)	35
Costs of the training facilities	22 (65)	10 (29)	2 (6)	34
Costs for training development	20 (57)	13 (37)	2 (6)	35
Costs for on-the-job training	19 (29)	23 (66)	2 (6)	35

N=50

Conclusions and Discussion

The conclusions will be discussed in the same order in which the subjects were raised in this article. At the same time, an answer is provided to the third research question (*To what extent can participation and costs be ascribed to developments in work organizations and the training function within these organizations?*) by commenting on the results that were collected in this study, in the light of internal developments on the labor market, which, of course, cannot be viewed separately from external developments. During the discussion occasioned by these results, a recent study is used that was conducted in the United States, under the auspices of the American Society of Training & Development, *Industry Report 2001*, of the current situation in the field of company training (Van Buren, 2001). In addition, reference is made to the *Intermediair Opleidingsenquête* [Training Survey] (Witziers, 2001; Intermediair, 7 June, 2001). Finally, provisional data from the CBS *Bedrijfsopleidingsonderzoek* [Company training study] is used, based on the press release of May 2001.

General. Comparatively speaking, many large to very large work organizations participated in this study; 30% of the participating organizations even have more than 3000 employees. The data file reveals that in this category of companies 'well-known Dutch and foreign multinationals' were amply represented. The fact that proportionately more large to very large companies form a part of the population implies that the data are not wholly representative of Dutch trade and industry. It is common knowledge that in the Netherlands there are many more companies in the company size up to 100 and from 100-500 than above (NV Databank, Chambers of Commerce and Industry, 1995). Research has also shown that small and large companies differ considerably from each other as regards the type of training and learning activities that they provide to their employees and the nature and extent of such efforts (CBS press release 22 May, 2001, Wognum & Bartlett, 2001; Smits, Wognum & Pye, 2001).

Participation. It was established in this study that, as regards types of training activities, short training programs with fewer than 10 sessions and one or two-day activities, such as conferences and workshops, were, according to the respondents, the most frequently used, and that these training activities would also remain of importance in the years ahead. The training activity 'learning while working' is now highly regarded and its importance in the coming years was expected to increase further.

Growth was mainly to be found, according to the respondents, in more 'informal' forms of learning, such as learning within a development pathway, job rotation and management development.

The findings of this study as regards training activities tally with the results of the *Industry Report 2001* by the ASTD (Van Buren, 2001). It is true that this report concluded that 'classroom training' still has an important share of the training activities, and will even increase in importance, but that companies will start to operate a more 'blended approach', where both 'classroom training' and 'informal' forms of learning (including 'job rotation' and 'cross training') are used.

It is striking that both in this study and the *Industry Report 2001* 'instructor-led classroom training' (traditional training programs) appears not to have been superseded by more 'informal' forms of training and learning and, more particularly, as appears in the *Industry Report 2001*, by e-learning. This last form of training and learning is still receiving mainly lip service. The prediction that 23% of all education and training in the United States in 2000

would be provided via e-learning does not appear to be based on facts. From the results of the *Industry Report*, it would even appear that the percentage of e-learning fell from 9.1% in 1997 to 8.4% in 1999. In the current study e-learning has not yet been included as a specific type of training activity. An explanation for this omission is that the study has been designed in 1998.

When the training domains are studied, it is striking that 'sector and branch-specific training' and 'management, enterprise and policy' training domains attracted the most participants in 1998. The *Intermediair Opleidingsenquête* [Training Survey] (Witziers, 2001) also indicated that management training programs were the most popular. What is also interesting in the *Intermediair Opleidingsenquête* is that participation in training programs, particularly by highly educated personnel, has fallen drastically, but that the participation of board members and management in training activities is declining less rapidly.

The *Industry Report 2001* is very clear as far as the demand made by 'branch-specific, job-related and methodical training' on the training expenses of organizations: it absorbs 13% of funds. The American study shows that 10% of the financial resources for education and training go on management training programs'. It is striking that the share of 'job-related and methodical training programs' in the United States is decreasing in favor of, for example, 'interpersonal communication'.

Table 3 of this study reveals further that participation in the 'personal growth' and 'personal effectiveness' training domains is expected to show the strongest growth. This indicates a tendency to bolster the ability of individual employees to exercise self-responsibility in relation to their learning and development pathway. This observation is in line with the results from the *Industry Report 2001*.

As regards the relationship of strategic goals and participation in training, it was established in this study that 'effective deployment of personnel and 'meeting quality standards' were the leaders in 1998. Both strategic goals will increase in importance still further..

It is, moreover, striking that the strategic functions of HRD are already strong right across the board and will strengthen even further. As a result, training will be placed more and more in the function of the strategic policy of the organization and will thus not be an isolated activity.

If we can believe the respondents, growth has, however, now come to an end. It is striking that regional training centers, higher vocational colleges and universities have acquired a good position in the training market. As far as training providers are concerned, it can be ascertained, on the basis of the results of this study, that the private training agencies had the greatest share of this in 1998. As for the position of the private training agencies, approximately half of the respondents were of the opinion that their share of 'out-of-pocket expenses' would continue to grow up to 2002. The *Industry Report 2001*, on the other hand, reported that growth relating to the outsourcing of training activities had come to an end. Training agencies were, according to the *Industry Report 2001*, still responsible for approximately 20% of the training expenses of companies in 1999, against approximately 25% in 1998. One possible explanation for this may be the previously mentioned growth towards more 'informal' forms of learning within work organizations and the 'blended approach' that is linked to them, which companies are starting to operate.

Costs. The survey data show that it is not simple for the respondents to convert participation in company training and the costs involved into figures. This is caused, on the one hand, by the fact that 'training accounting' is not geared to it; on the other hand, it is becoming increasingly difficult to determine exactly what is occurring and what the costs are, particularly due to the growth of more 'informal' forms of training and learning.

The amount of training costs was assessed by the respondents at an average of 2.84% of the gross wage bill for the total organization (national and international), 3.38% for the national part of an organization (or an organization operating exclusively in the Netherlands), 2.29 % for the organizational unit where the respondent worked and 3.03% for the organizational unit for which the respondent was directly responsible.

In comparison, the recently published press release from the CBS about 'company training in the Netherlands' shows that companies in the Netherlands spent Euro 3.1 billion on training programs in 1999, which amounts to 2.7% of labor costs. Large companies spend more on training than do small companies: companies with between 10-99 employees spend 1.8% of labor costs; companies with between 100-499 spend 2.8% of labor costs on training and companies with 500 and more employees beat them all, with 3.8%. These data are fairly in line with the results that were found in the current study.

From the recently published *Industry Report 2001*, it appears that companies with a maximum of 500 employees spend 2.4% of their gross wage bill on education and training, against 1.3% by companies with more than 2000 employees. This is thus substantially less than what has been established in this study and the CBS survey in the Netherlands.

Research into the costs of company training will have to start focusing more on establishing the expenses for 'informal' forms of training in the future. This matter has not yet been explicitly addressed in the current study, and

also in the recently available data from the CBS survey participation in congresses, seminars, organized group discussions and self-study was not included. Informal forms of training and learning go still further than the activities mentioned by the CBS, because they involve all forms of learning and acquisition of knowledge on the job (Streumer & Van der Klink, 2001).

In order to gain a reliable picture of training efforts, it is also desirable for small and medium-sized businesses to include 'informal' training and learning activities. This is because the study shows that small companies learn more through 'work arrangements' and the like than through traditional courses/training programs (Wognum & Bartlett, 2001; Van Buren, 2001).

Furthermore, changes appear to be occurring in the length of formal training. In the United States, the length of training has declined from an average of 23.4 hours per employee in 1998 to an average of 19.6 hours in 2001. Here too, the explanation for this may be that a shift is taking place in favor of 'informal' forms of training and learning and that these have not been taken into account in the figures.

This paper has attempted to provide an answer to the three research questions mentioned. The first two questions have been answered in the 'Results' section, in which the participation in and costs of company training programs were discussed consecutively. As far as the third question is concerned – whether participation and costs are influenced by developments in the work organization and the training function within it – a discussion of the developments in the environment of work organizations and the way in which these developments affect the strategic policy of the work organizations is to be found in the introduction to this article. In this respect, it was also indicated that a shift is occurring in the training function. The training function is moving upwards in the organization, which implies that management realizes the importance of the human capital within organizations and regards its development as crucial.

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