

# The future of HRD

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What organizational, technological and training developments will become crucial in the coming years, and what consequences will they have for human resource development? These questions have led to a study carried out by the faculty of Educational Science and Technology at the University of Twente, in the Netherlands. The ultimate aim of the study was to create an inventory of trends and developments which professionals deem to be influential with regard to the future HRD field. One direct catalyst for the study was the report of a similar study in the United States, involving HRD executives, carried out by the American Society for Training & Development. Following a brief explanation of the research plan and methods, this article describes the findings of the Dutch study and compares these with the results of the American research. It concludes with comments regarding the implications of the information obtained through this investigation.

What the future will hold for Human Resource Development (HRD) is a topic that has for several reasons inspired not only HRD-practitioners but also many scholars. It provides implications for the preparation of current and future HRD professionals in particular and more in general the total workforce. Further, it offers HRD professionals within training departments and training vendors an opportunity to compare their training supply to the actual and future needs of the market. The research findings are also of particular interest for researchers since the findings provides empirical evidence for establishing future research themes in the field of HRD.

Finally, the discussion on HRD is dominated by American scholars and practitioners which makes it difficult to translate their concepts and ideas to the international HRD community. The difficulty lies in the fact that there might be fundamental differences in the assumptions of American and non-American HRD professional about organizational, technological and training developments. It is the focus of this article to present data of a non-American country, The Netherlands, and to compare this data with previous collected data in the USA in order to assess the possible similarities and differences between the HRD visions and practices in the two countries.

In this section the concepts of organizational, technological and training developments are defined and the opinions of a selection of influential authors referring to these developments are discussed. Furthermore, for a correct understanding of the differences

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in the results between the Netherlands and the United States, some background information is provided on HRD-systems in both countries.

An organizational development is a development that relates to the organization in an instrumental sense (Keuning and Eppink 1990), by which is meant 'the instrument' of the organization that is created as a result of human activity. What is involved here specifically is the design of the organizational structure: the division of labour, powers of decision and the rules relating to planning, decision-making and conduct that exist within an organizational structure in order to ensure that everything runs smoothly. Apart from developments that impact on the division of tasks, responsibilities and competencies in the organizational structure, when it comes to organizational developments, attention should also be paid to developments that impact on the standards, values and beliefs within an organization (the organizational culture).

With regard to organizational changes, these are likely to stem from the need to improve organizational performance, in terms of quality and costs, to maintain a competitive edge on the global market. Unlike the last decade, nowadays the prevailing opinion is that modest organizational changes will not pay off. In order to remain competitive, the focus should be on restructuring the company as a whole. Gephart (1995) compared the outcomes of various research projects and came up with some common features of high-performance work organizations, although the concept of high-performance work organizations is, in her view, rather vague. These organizations share such principles as designing work in the light of a company's competitive strategy and business goals, customer-focused measures of performance, and designing organizational units around products, services or processes. Employees in high-performance work organizations are expected to be committed to organizational goals, to work in teams and to perform various tasks. These include traditional managerial tasks, such as team-based planning and decision-making. To develop high-performance work organizations, a strategy is required that focuses on the organization as a system, rather than on one single unit or department. One strategy that is often mentioned in literature is business process re-engineering (BPR) (Edwards and Peppard 1994, Davenport 1995). The central element of this strategy is the recognition that work should be organized around processes to produce the most logical, effective and efficient process flow, with the aim of accomplishing an outcome of value to the customer (Smith Hutchinson 1995).

When defining the term technological development, it is important to elaborate further the term technology. Heinich, Molenda and Russell (1993) give three meanings of the term technology:

- Technology as a process; this concerns 'the systematic application of scientific or other organized knowledge to practical tasks';
- Technology as a product, here the emphasis lies on 'the hardware and software that are produced by the application of technological processes.' Think of a film that is just as much a product of technology as the projector which shows the film;
- Technology as a mixture of process and product. Two examples can be given here. Firstly, it is often postulated that technology produces an expansion of information systems, which implies interaction between the process of invention and the instruments resulting from this. Secondly, a process may be inseparable from a product, as in the case of computer technology, where the hardware and software are in interaction with each other.

Rosow and Zager (1988) state that use is made of technologies within organizations for the following reasons: to complete a product, component or service, to be able to manufacture more units, to manufacture more economically, to manufacture more quickly and to be able to manufacture a high quality product. They also indicate that computers play an important role in this. A technological development relates, however, to more than just computers, according to Rosow and Zager: it also relates to such fields of study as mechanization, chemistry, hydraulic and pneumatic systems, electronics and microbiology. Progress within these variation disciplines leads to new technological developments. An example of this is a robot: a robot consists of a combination of mechanical, hydraulic, pneumatic and electronic elements, that are in turn controlled by a computer.

In short, a technological development can be defined as a development at three levels of technology (product, process and a mixture of product and process), involving various disciplines or fields of study (Vermeulen 1996).

Technological developments will have a profound effect on organizations. Romizowski (1995) provided some insight into this issue for the years ahead. In his view, information technology has so far merely automated and streamlined past practices. For the near future, however, Romizowski pointed to the important role of information and the development of new information as important factors in organizational success. Romizowski envisaged, for example, the establishment of computer-based modeling to investigate an unlimited range of alternative business scenarios that would contribute to better organizational strategic decision-making. For companies to establish a competitive edge, it is important for them to consider gaining access and using new knowledge and to generate new knowledge themselves for improving products and processes. The process of generating new knowledge highlights the relevance of managing tacit knowledge for its contribution to knowledge formation and its transformation into explicit knowledge (Nonaka and Takeuchi, 1995).

From knowledge technology to training is but a small step, especially since training developments are defined as processes that are closely linked to learning processes in organizations, aimed at producing high quality outputs for customers. This is, after all, the primary reason for the existence of any business organization: performance is the key (Swanson 1994). Performance should not be only understood as individual employee behaviour but in current concepts three performance levels are distinguished (Davis and Mink 1992, Rummler and Brache 1995):

- the organization level;
- the group or process level;
- the individual.

The first level, that of the organization, places the emphasis on the relationship of the organization with its environment and the structure of the various parts of the organization (Rummler and Brache 1995). A clearly recognizable culture (an aggregate of shared beliefs, standards and values within an organization) and clearly-focused aims are of importance at this level (Davis and Mink 1992). The second level (the group level), involves groups or teams within the various parts of the organization that have shared aims, standards and values. This refers to the 'workflow' of an organization, or the manner in which the work is produced within the organization. Given the fact that this process takes place within the groups or teams in an organization, these two different designations, process level and group level, are regarded as synonymous. The third and final level, that of the individual, involves

employees within the organization who ensure that the work is actually performed (Rummler and Branche 1995). These are the individuals within the process or group level. Technological, organizational and training developments impact all of these three performance levels.

It is expected that the occurrence and bottom-line influence of the above-mentioned technological organizational and training development will differ for individual countries, not only because of contrasting HRD-traditions but also on account of differences in the socio-cultural and economic situation of the countries. For a better understanding of the differences between the Dutch and US scores on the developments in table 1, some characteristics of HRD in both countries are provided.

**Table 1. Comparison of HRD in the Netherlands and the United States.**

	<i>The Netherlands</i>	<i>United States</i>
Legislation	No statutory obligations. Some sectors have training funds available, paid for by employers	No national statutory obligations
Educational leave/provision of training	No statutory obligations: 66 % of the collective labor agreements contain arrangements on educational leave varying from one to eight days, a year; 73 % of the collective labour agreements include arrangements on training provision (e.g. level of the financial contribution to training funds, number of practical training places, number of training days)	No statutory obligations
Participation	In 1990 18 % of the working population participated in training (one million employees)	In 1992 44 % of the working population participated in training (40.9 million employees)
Costs	In 1992 NLG 3.5 billion (1.7 % of the payroll costs)	In 1992 US\$ 45 million

The data in this table are partly derived from a literature review focusing on an international HRD comparison (Van der Klink and Mulder 1995). The most striking difference between the two countries is the percentage of workers involved in training.

In the US the percentage of workers involved in training is more than twice as high as in the Netherlands. In both countries governmental regulations for training provision and educational leave are lacking, although the need for such measures is emphasized for the US (Carnavale, Gainer and Villet 1990). Recently, Dutch unions have expressed the need to place employees' training provisions nearer the top of the agenda for collective bargaining.

**Research question and methodology**

The central research question addressed in this article is: 'What trends might impact on the future of HRD in The Netherlands, compared to those in the US?' In this article HRD refers to the entire range of educational, training and development facilities available in an organization, which enhance the desired learning processes in employees

**Table 2. Tasks and job descriptions of the respondents.**

	<i>Industry, transport, utilities &amp; construction</i>	<i>Bank, insurance &amp; business services</i>	<i>Government</i>	<i>Total</i>
Internal training manager	11	3	8	22
Internal trainer/consultant	13	17	14	44
Personnel staff/line manager	6	3	3	12
Manager external consulting agency	1	19	3	23
Trainer external consulting agency	3	29	12	44
Other	3	2	9	14
Total	37	73	49	159

(Nadler 1984). International comparisons of future HRD practices are quite scarce and, when available, are based on limited case-studies. Consequently, they possess little potential for generalizing the findings. To overcome the problem of external validity in this study, an alternative research design was used: a questionnaire with the same content as that previously used by the ASTD in its research into future trends among HRD managers of US companies. Thus, to optimize the comparison with the ASTD study, an analogous research instrument was used for the Dutch context. The Dutch instrument also took the form of a questionnaire, which inquired into future developments in the areas of organization, technology and training. These developments were separated into 40 different items, and for each item, three questions were asked: (1) In your opinion, how great is the likelihood that this development will actually happen? (2) How great will be its effect on HRD? (3) How great will the effects of this development be on your organization? The answers were to be given using a seven-point scale, with ‘1’ representing the lowest probability/effect and ‘7’ the greatest. The questionnaire was sent to the readers of *Opleiding and Ontwikkeling*, the Dutch equivalent of a journal such as *Training and Development*. In total, 161 respondents returned the questionnaire prior to the deadline. Table 2 illustrates some characteristics of the response group.

Two respondents failed to indicate their job function. The distribution of task and job descriptions indicates that over half of the respondents were employed as trainer/consultant (internal and external combined). With regard to fields of employment, the category, ‘Bank, insurance & business services’ stands out: 46 % of the respondents (n = 73) are employed within this area. The question, ‘How representative is the response group?’ is quite difficult to answer. There is a great lack of reliable figure for the population characteristics of HRD professionals in the Netherlands. As a result, the representatives of the response group has been determined using the available information, namely the list of subscribers to *Training and Development*, and the membership roster of the Dutch Association for Training Employees (NVvO). It should be noted that the latter data base has also been used for a Dutch study into the profiles of HRD professionals (Van Ginkel, Mulder and Nijhof 1994). Both in gender and age, the response group appears to fairly represent the *Training and Development* readership, as identified by a telephone survey of 200 subscribers to this magazine. The only exceptions were the percentage of respondents in the 30–34 age group, which is slightly lower than the telephone survey indicates, whereas in the 45–54 age group, relatively more individuals responded. The response group bears a strong resemblance to NVvO membership, with a slight over-

representation of the 25–34 age group. In addition, 46 % of the response group in this study indicated that they are employed in the ‘Bank, insurance & business services’ category, whereas the NVvO membership roster shows only 34 %. The distribution of the respondents related to the size of the organization in which they are employed is in accordance with the distribution of NVvO members. To sum up, the response group is representative of subscribers to Training and Development, as well as of the professional HRD population in the Netherlands; the research population does not differ significantly from the national population of HRD professionals.

**Organizational Developments**

Seventeen potential organizational developments were presented to the respondents, with questions as to how likely these developments were to occur in the next five years, what would be their effect on HRD and on the respondent’s organization. As previously mentioned, the answers to these questions were given in the form of a number on a seven-point scale. Table 3 illustrates the responses to the organizational development

**Table 3. Organizational developments with anticipated trends for the coming five years, effect on HRD and organization.**

<i>Organizational developments</i>	<i>Probability</i>	<i>Effect on HRD</i>	<i>Organizational effects</i>
1. Measuring business results with regard to consumer relevant criteria	6.23	5.96	6.00
2. Communication and information-networking will exceed business and national boundaries	6.13	5.20	5.22
3. Increased importance of the innovative capacity of organizations	6.09	6.11	5.93
4. Increased employee responsible for own work and career path	5.88	5.87	5.25
5. Teams more responsible for total primary process	5.69	5.88	5.56
6. Employees will steer the direction of their own careers more	5.69	5.75	5.00
7. International standards and economy will permanently influence business organization and routine	5.69	5.34	5.03
8. Increased interest in re-engineering organizations with an eye to high performance	5.67	5.53	5.38
9. Organizations determine their core activities; auxiliary functions are either discontinued or carried out by temporary employees	5.62	5.34	5.14
10. Impatience with the current pace of change will lead to gradual and continuous re-engineering of key processes and/or gradual and continuous improvements	5.54	5.32	5.12

questions. The average score of 5.50 or higher indicates that people feel these developments have a relatively high probability of occurring within the next few years; scores lower than this were therefore excluded from the chart.

Of the 17 organizational developments which were presented, ten ranked notably high in terms of their likelihood to occur. The emphasis on the measurement of business results stands out as particularly significant (see Table 3, development 1); this stress on business may also be found in the increased interest in re-engineering the organization (Table 3, development 8). This development places equal emphasis on the arrangement of the organization and on business results. Developments 4, 5 and 6 all indicate that employees will be given more responsibility in the workplace, not only in the execution of their jobs, but also in the determination of their career paths. The impact of globalization on organizational development can be found in Table 3, developments 2 and 7.

With regard to organizational trends, respondents indicated that they expect to see more 'trimming down' to core activities (Table 3, development 9). Furthermore, emphasis will continue to be placed on the innovative capacity of organizations (development 3), with the accent on gradual, continuous development (development 10). In addition to the organizational tendencies mentioned in the previous table, this research also examined developments which are expected to have only a relatively slight chance of survival: large-scale reduction in personnel (score 4.75); interventions causing changes in the primary processes, as a result of dissatisfaction with the tempo of the change process (score 4.76); less separation between management and employees, in terms of authority, status and roles (score 4.96).

A comparison of the less likely developments with the most likely tendencies yields some interesting discoveries. For example, respondents expect more trimming down to a situation where only core organizational activities remain, while simultaneously predicting a less extensive reduction in personnel. They do not appear to consider that the first of these developments initiates the second, that is that pulling back to the core functions in an organization implies the discontinuation of auxiliary functions, and thus the lay-off of personnel. It is also noteworthy that substantial organizational changes in the primary processes did not appear in table 3. The respondents seem to prefer that the organizational changes occur gradually, not as a result of large-scale, immediate intervention (table 3, development 10). This is in striking contradiction to the currently popular concept of business process engineering, where profound changes are made simply to keep up with the competition. Finally, it is also significant that the professionals expect the current distinction between employee and manager to remain as is, yet at the same time they forecast a greater emphasis (being placed) on the importance of team-building and group accountability for the primary work process.

The effects of the afore-mentioned organizational developments in HRD can be found in the column, 'effect on HRD'. If the minimum score of 5.50 remains the criterion for a potential occurrence, then only six of the original 17 organizational developments meet this criterion. The greatest effect on HRD is expected to result from the organizational development, 'increased importance of the innovative capacity of organizations,' (see table 3, development 3). Two further developments expected to have a significant impact on HRD are a stronger trend toward 'measuring business results with regard to consumer relevant criteria' and an 'increased interest in re-engineering organizations with an eye to high performance', (table 3, developments 1 and 8). In addition, other developments expected to have a great influence on the role played by HRD include those emphasizing the responsibility of employees for their own

work and career paths, (developments 4, 5 and 6). Summing up, while not all of the organizational developments expected will have a great impact, organizational change in terms of optimal business results and a stronger appeal to the employee's sense of personal responsibility will influence the future of HRD.

The last column of table 3 concerns the anticipated effects on the respondent's organization. Of the 17 organizational developments, only three appear to have a significant likelihood of being realized, (again, using the criterion of a minimum of 5.50 score). These three developments are: the measurement of business results, the increased importance of innovation in organizations, and an increased share in responsibility for the total primary process. While this is not the case for all developments, there is a tendency in table 3, for the respondents to rank the possibility of a development occurring higher than its effect on HRD; the effect on their own organization is even lower than the effect on HRD. This may mean that there is a decreasing likelihood of certain developments having any significant impact. The respondents thus all agree that the developments will have effects elsewhere (if at all). One explanation for this may be that, from a social standpoint, it is inappropriate to discuss the overall probability of developments occurring (which most respondents appear to consider slim). It is far more acceptable to express hesitation about one's own situation.

In table 3 the scores for each category are listed together. This information was also analyzed to determine whether there was any indirect connection between the respondents' judgment of the probability of organizational developments occurring and their judgement regarding the effects on HRD and their own organization. The respondents were divided into two groups: those employed in a training/consultancy agency, and those working in the personnel or training department of a business. Only development 8 (table 3) showed a significant difference: respondents employed by a training or consultancy agency estimated the likelihood of an increased interest in re-engineering organizations, with the aim of achieving optimal business results, to be lower than, did their colleagues, (employed in personnel or training divisions). Finally, consideration was given to any connection between the size of organizations and the reactions of the respondents. For this, only the scores of respondents employed by businesses were examined, and the 44 respondents working at training and/or consultant agencies were excluded from this stage of the analysis. The businesses were divided into three categories: up to 100 employees, 100–500 employees and over 500 employees. The analysis showed no significant pattern in the organizational developments in any of these categories. In other words, it appears that the size of a business had no significant impact on the scoring tendencies of the respondents.

### **Technological Developments**

Six developments relating to the impact of new technologies were presented to the respondents. Of these, five appear to have a good chance of being realized, when applying the criterion of a minimum of 5.50 score (see table 4).

Development 1 clearly stands out as the development with the greatest likelihood of occurring with the next five years: 'digital electronics, such as the internet, will change the way information is created, stored, used and shared.' Interestingly, no significant effect on HRD is expected, and neither is a great impact on the respondent's own organization. It would appear that respondents have been sufficiently influenced by current discussions about the electronic superhighway to consider it as having a role in

**Table 4. Technological developments with anticipated trends for the coming five years, effect on HRD and organization.**

<i>Technological developments</i>	<i>Probability</i>	<i>Effect on HRD</i>	<i>Effect on organization</i>
1. Digital electronics such as the internet will change the way information is created, stored, used and shared	6.11	5.01	5.15
2. Technology in the workplace will become more portable and user-friendly	5.96	4.48	4.81
3. The computer will be seen and used less as a main frame, and more as a portable desktop	5.90	4.31	4.57
4. Organizational growth will spur on further exchange of information with clients and suppliers via the computer	5.81	4.30	4.77
5. Computers and electronics will play a role in even more work environments	5.57	5.00	4.85

our society. They are, however, less sanguine about its effects on their own situation. Could this be related to ignorance or resistance? Have the respondents had experiences of a less positive nature with information technology developments in the last few years? Was CBT (computer-based training) or CAT (computer-assisted training) not the optimal solution for functional shortcomings? Do many businesses still work with mainframes, and if so, are they still waiting (for financial reasons) to replace these with even more portable and flexible systems? It is worth noting at least one technological development which did not meet the 5.50 criterion: ‘the exchange of computer information will become an important source of learning.’ The results of this part of the research differ from those of organizational and training developments, when it comes to overall trends. Whereas organizational and training developments evidence a steady decline in their likelihood to have an ‘effect on HRD’ and are finally lowest at ‘effect on the organization,’ technological developments are viewed differently. There is a notable drop throughout the second category, but, strangely enough, the respondents estimated by and large, greater effects on their own organization than on HRD! Again, the study investigated the link between the respondent’s source of employment (in personnel or training within a business, or working for training/consultancy agency), and the estimates they made. This time, development from table 4 (‘technology in the workplace will become more portable and user-friendly’) seems to differ depending on the type of organization.

Those employed by businesses estimated the effects on their own organization to be greater than did those working for a training/consultant agency. In addition, any pattern relating the size of the organization to the scoring responses was again examined, (as previously, omitting the employees of training and consultant agencies from the group). The analysis showed that only development 5 varies with the size of the business. In small businesses, (with one hundred employees or less), as well as in large business, (with over 500 employees), computers and electronics are expected to play a role in even more work environments. As for the other four developments, business size appears to have no influence. In other words, the size of the organization does not seem to be an adequate predictor for measuring the effects of new technologies on the respondents’ own businesses.

Training developments

In this category, 17 training developments were presented to the respondents and, again using the criterion of 5.50 as a minimum score, eight appear to have a reasonably high likelihood of occurrence. These developments are described in table 5. The information

**Table 5. Training developments with anticipated trends for the coming five years, effect on HRD and organization.**

<i>Training developments</i>	<i>Probability</i>	<i>Effect on HRD</i>	<i>Effect on organization</i>
1. Less emphasis on the traditional training concepts, learning will be more integrated with work	6.10	6.12	5.86
2. More training will be delivered ‘just in time’ and directly within the context of a job or task	5.86	5.78	5.52
3. Increase in self-guided learning and team learning	5.75	5.73	5.47
4. The emphasis on business high-performance work will shift training content away from isolated skill-building and information transfer to performance improvement and support	5.65	5.57	5.29
5. Monocultural workforces and homogeneous customer bases are disappearing. Companies will devote more effort to being aware of differences and incorporating diverse values into their practices, products and services	5.62	5.60	5.16
6. Companies will continue to experiment with centralization and de-centralization, searching for the right mix of overall direction and local delivery of training	5.62	5.49	4.99
7. Interest will grow in how organizations learn and how they evaluate learning, including how it can be evaluated by temporary employees	5.61	5.47	5.32
8. Companies with large numbers of temporary and part-time employees are confronted with the problem of how to train, motivate and communicate with these employees	5.55	5.61	4.95

in this table, indicates that new models for learning are very likely to play a role in business within the next five years. What should also be noted is that there will be less emphasis on the traditional training concepts, learning will be more integrated with work (development 1); self-guided learning and team learning are on the increase (development 3); there is a growing interest in how organizations learn and how they evaluate learning, including how it can be evaluated by temporary employees (development 7). Further, training is expected to be more strongly focused on the performance of employees (developments 2 and 4). Diversification among the workforce appears to be an issue that is expected to have a significant influence on future developments in training (development 5). Finally, another prediction is that organizations will continue to search for the most effective blend of centralized and de-

centralized training situations. Three of the developments which, according to the respondents, have little likelihood of occurring, are especially worth of mention. Two of these share a common theme: increased governmental support for training. These items are: the government will become more active in business training (score 3.62), the training of specific groups (e.g. persons with disabilities, ethnic minorities) will be conducted under governmental management (3.74), and support for training will shift more from professional trainers to technical specialists (score 4.81). The last of these is particularly remarkable; after all, have we not been discussing over the last few years the return of training responsibility to the line manager?

Of the eight developments which appear to have a strong probability of occurring, six have been noted (by the respondents) as having a potentially great effect on HRD (score 5.50 or higher). Just under the limit of 5.50 are the (de)centralization of training and increased interest in learning how organizations function. The respondents expect only two of the tendencies in table 5 to have any major effect on their own situation: 'less emphasis on traditional training' (development 1), and 'just-in-time' job and task training (development 2). Once again, the researchers looked for any influence resulting from the size of the business, as well as any influence related to employment by a business or a training/consultant agency. The trainers who work in a business expect the diversification issue to play a greater role in the business world in the next five years than do their counterparts employed by training/consultant agencies. Business size, again, shows no sign of influencing the respondents' expectations as regard, the probability of the issue, its effect on HRD or its effect on the organization.

### **Comparison with the US**

As a result of using virtually the same research instrument as that developed by the American Society for Training & Development (ASTD), the potential for comparison has been maximized. In the American research, only HRD managers were asked to participate in the survey, whereas in the Netherlands, training advisors and personnel staff were also invited to share their opinions on future developments (see table 2). The Dutch research shows that the function of the respondent had virtually no influence on his/her perception of the developments. The extent to which teams will play a greater role in the total primary process (see table 3) is the only development where respondents indicated a slight distinction, when estimating its effects on HRD. Since the statistical support showed virtually no difference among respondent groups, the total set of Dutch respondents was then compared to the set of American HRD managers. Information concerning this international comparison is given in table 6.

Notably, the respondents' estimates of the effects on their own organizations are not included in table 6. In this comparison, the focus lies on what field workers find important for the coming years, and how or if this will affect HRD. The criterion used for inclusion in this table was: any category with either a Dutch or an American HRD probability and/or effect score of at least 5.50. It should be noted that all of the technological developments would fail to meet this 'strict' criterion. The decision to compare the three top-scoring issues for both Dutch and American 'organizational developments' as well as for 'training developments' was made on an arbitrary basis. On examining table 6, one can see that America and the Netherlands have different (top three) lists. In the Netherlands, the developments most likely to occur are:

**Table 6. Comparison of the Netherlands (n = 161) with the US (n = 90).**

<i>Development</i>	<i>Probability in NL</i>	<i>Probability in US</i>	<i>Effect on HRD NL</i>	<i>Effect on HRD US</i>
<i>Organizational developments</i>				
1. Measuring business results with regard to consumer-relevant criteria	6.23	5.60	5.96	5.60
2. Increased importance of the innovative capacity of organizations	6.09	5.55	6.11	5.95
3. Increased interest in re-engineering organizations with an eye to high performance	5.61	5.90	5.53	6.10
4. Teams more responsible for total primary process	5.69	5.70	5.88	5.70
5. Increased employee responsibility for own work and career path	5.88	5.50	5.87	5.45
6. Employees will steer the direction of their own careers more	5.69	5.30	5.75	5.15
7. International standards and economy will permanently influence business organization and routine	5.69	5.60	5.34	5.60
8. Employers will have to work harder to earn their employee's trust	5.03	5.70	4.99	5.70
9. Leadership expressed through teams will become more common	5.32	5.80	5.44	5.50
<i>Training developments</i>				
10. Less emphasis on the traditional training concepts, learning will be more integrated with work	6.10	5.45	6.12	5.60
11. More training will be delivered 'just in time' and directly within the context of a job or task	5.86	5.75	5.78	5.75
12. Increase in self-guided learning and team learning	5.75	5.05	5.73	5.65
13. The emphasis on business high-performance work will shift training content away from isolated skill building and information transfer to performance improvement and support	5.65	5.65	5.57	5.80
14. Monocultural workforces and homogeneous customer bases are disappearing. Companies will devote more effort to being aware of differences and incorporating diverse values into their practices, products and services	5.62	5.40	5.60	5.40

Table 6. (cont.)

<i>Development</i>	<i>Probability in NL</i>	<i>Probability in US</i>	<i>Effect on HRD NL</i>	<i>Effect on HRD US</i>
15. Companies will continue to experiment with centralization and decentralization, searching for the right mix of overall direction and local delivery of training	5.62	6.20	5.49	5.85
16. Companies with large numbers of temporary and part-time employees are confronted with the problems of how to train, motivate and communicate with these employees	5.55	5.50	5.61	5.60
17. Training delivery will continue to shift from professional trainers to nontrainers such as managers, team leaders and technical specialists	4.81	5.35	5.27	5.60

- (1) measuring business results with regard to consumer-relevant criteria, followed by
- (2) less emphasis on the traditional training concepts, learning will be more integrated with work and
- (3) increased importance of the innovative capacity of organizations.

In the United States, the three highest-scoring developments are:

- (1) companies will continue to experiment with centralization and decentralization, searching for the right mix of overall direction and local delivery of training,
- (2) increased importance of the innovative capacity of organizations,
- (3) leadership expressed through teams will become more common.

This procedure was then applied to effect of the developments on HRD, and that yielded the following results. In the Netherlands, the highest-scoring developments are:

- (1) less emphasis on the traditional training concepts, learning will be more integrated with work,
- (2) increased importance of the innovative capacity of organizations and
- (3) measuring business results with regard to consumer relevant criteria.

The scoring behaviour of the American HRD managers shows that two of the three developments considered most likely to occur returned to take their place in the ‘top three’ list:

- (1) increased interest in re-engineering organizations with an eye to high performance (new addition),
- (2) increased importance of the innovative capacity of organizations and
- (3) companies will continue to experiment with centralization and decentralization, searching for the right mix of overall direction and local delivery of training.

The above summary shows that those employed in the Dutch training field are only slightly in accord with the American HRD managers if one compares the 'top three' lists. However, in respect of the 'top three' list, it can be concluded that the Dutch and US training field representatives do quite strongly agree with each other on the importance of developments. Eight of the development listed in table 6 were considered significant enough to rank at least once in the 'top three' key issues. The other 11 developments are less worthy of 'honorable mention', despite the fact that they have a score of 5.50 or higher!

## Discussion

In the study, 'the future of HRD', training executives and training and personnel staff were asked 40 questions about organizational, technological and training developments. They were given the opportunity to predict which trends and issues would play key roles in the field of HRD throughout the next few years, if these would affect HRD (as well as) their own organizations. The research was carried out in the Netherlands following a similar (almost identical) study in the United States. While it may be argued that the response group reflects a fair cross section of the Dutch HRD professional population, the researchers realize that willingness to participate in this type of study is generally minimal. After repeated requests, the total number of respondents increased to 161. This relatively low response was most likely due to the fact that this type of research usually yields little or narrowly-focused information. On the other hand, it should be mentioned that there is usually quite considerable interest in this type of information. Don't we all wish it were so simple to determine whether the company is on the right course, or the individual HRD professional on target?

Clearly, in the Netherlands, as well as in the United States, the battle is continuing to rage between creating innovative organizations, which produce optimal results. This becomes only too apparent when the high-scoring organizational developments are carefully scrutinized. A great deal of value is attached to the innovative capacity of organizations, and re-engineering as a means of optimizing the performance of the organization also receives a high score. Both developments are also designated change management by several authors (Rhinesmith 1995, Koonce 1995). Rhinesmith defines change management as the management of organizational change to be prepared for the dynamic changes resulting from the global competition that companies face. When introducing change management, Rhinesmith believes that organizational cultures and change methods should be implemented that will enable organizations to anticipate adequately the speed and scale of contemporary changes. Koonce is of the opinion that change management should be linked with career development.

Employees must have an insight into the opportunities and limitations of their own competencies and learn to anticipate possible new roles that they could fill within their own organization or elsewhere in the (near) future. Employees are increasingly becoming responsible for their own future. This fits in perfectly with the organizational development employees will steer the direction of their own careers more. What can be observed is that organizations are becoming more transitory and that both bonds between employers and employees are based more on interdependence and less on loyalty. Additionally, because of the growing instability of employment, workers need to know how to move efficiently from one job to another. They need to know how to

manage their own interests, previously taken care of by their employers. The quest for worker (key) qualification that transcends time and circumstance becomes more important (Streumer and Bjorkquist 1998). It is obvious that the abovementioned changes challenge HRD departments seriously: current traditional content and forms of training must be replaced.

In this respect several authors (Bowsher 1992, Peery and Salem 1993, McAteer 1994), found a connection between the creation of new organizational forms (as a result of mergers, restructuring, re-engineering, etc.) and the training function. In this context Bowsher even mentions the possibility of externalizing the training function. McAteer reports that in particular the trend toward making organizations flatter and more flexible will increase the employees' own responsibility for learning and career development (table 6, organizational development 5). Furthermore, as a result of this development, learning as a performance tool will become important and will largely take place in teams (table 6, training development 12), specifically in relation to work (table 6, training development 10) and at moments when the need arises, i.e. 'just-in-time' (table 6, training development 11).

As a result of the gradual replacement of the current traditional training function by performance-oriented learning, the role of the HRD professional will also shift to that of adviser and knowledge manager, who supervises and organizes learning processes in consultation with management and employees.

The findings also suggest more emphasis will be placed on the workplace as a learning environment where workers learn just in time the practical skills they need to perform their tasks. There are however two elements in this shift to the workplace as learning environment that are crucial and both not present in the current debate. First, the notion that the workplace can serve as a powerful learning environment. The quality of the learning experiences in the workplace rely heavily on the presence of time dedicated to learning, and the commitment, support and feedback of colleagues and management. It is questionable to what extent these conditions are present in the current and future workplace. Second, the shift to learning in the workplace has an impact on the content of human development, since emphasis lies more on acquiring skills and knowledge in the context of the current job. It is likely that this will affect negatively the development of (key) qualifications that are applicable in a large variety of job positions and at the same time it could reduce workers' employability.

Another development that asks for critical reflection is the assumption of the worker as a self-directed learner. The introduction of computer networks, internet and intranet are generally perceived as promising tools to enhance self-directed modes of learning. Although the pace of technological developments is rather low (see table 5) it is likely they will affect work and the delivery of training and learning. Most adults however, do not possess the cognitive strategies that are conditional for self-directed learning. In general, adults prefer more structured modes of learning and training (Van der Klink and Nijhof 1997). Results of experiments with training in the workplace assisted by Electronic Performance Support Systems show that high levels of learner control do not challenge workers to learn and only result in a superficial understanding of the work tasks (Bastiaens 1997). For the successful introduction of self-directed learning it is required to pay attention to the metacognitive strategies and workers' motivation for self-directed learning. Especially older workers with low levels of formal training need guidance to become successful self-directed learners.

It is likely that the content and place of HRD policy is changing. The developments mentioned in this article point at a significant role of HRD in the establishment of high

performance effective organizations. Critical reflection on the scope and consequences of the various developments by HRD professionals is needed to find a balance between organizational interests and the interests of workers.

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