

13. Keeping older workers committed and employed through formal and informal HRD initiatives

Ida Wognum and Martine Horstink

ABSTRACT

Human resources development (HRD) initiatives are often targeted towards increasing employee organisational commitment. This specifically holds for more informal practices of learning and development, although most learning situations encompass both formal and informal elements. In this chapter a negative relationship is hypothesised between the formality level of HRD initiatives and employee commitment meaning that a higher level of formality is expected to lead to a lower level of organisational commitment. It is also hypothesised that this relationship is stronger for older workers. Although the findings do not support both hypotheses, the results are interesting. For instance, older workers having learned more formally through a new task, job or project, show significantly more continuous organisational commitment. This finding offers the opportunity to arrange new learning and development initiatives to improve older workers' organisational commitment and prevent them from exiting the labour market early to retire. It also adds new insights to the public debate in which older workers' knowledge development has often been narrowed to formal training.

13.1. Introduction

Rapid developments are taking place within society and organisations. They demand a flexible, responsive and competent workforce. One of the most urgent issues in this respect is the impact of the world's population ageing on employment and the labour market. Several studies show that the number of people aged 60 and over is growing faster than all other age groups (ILO, 2002; SER, 2005; McGoldrick et al., 2008). The demographic shift towards old age means that there will be an increasing shortfall in young workers and that companies will have to rely on older workers to meet skill demands. They need growing participation by senior people and are forced to retain their older workers longer to make use of

their rich expertise. Therefore, it is crucial that action is taken to encourage older people to play a productive role in our economy as long as possible (McGoldrick et al., 2008). In this respect organisational commitment by employees plays an important role, as highly committed employees are less likely to leave the company (Goslinga, 2001; Meyer and Allen, 1991). Empirical evidence suggests that, in fact, the likelihood of leaving an organisation decreases as commitment increases (Meyer and Allen, 1991; Batt, 2002).

Section 13.2 examines the concept of organisational commitment. Section 13.3 deals with a hypothesised relationship between organisational commitment and the formality level of learning and development. In Section 13.4, this relationship is further explained with respect to older workers. In Section 13.5, the research method is described, while in Section 13.6 the results of this study are presented. In Section 13.7, conclusions are drawn from these findings, which are discussed in Section 13.8 and lead to some suggestions for further research.

13.2. Organisational commitment

Organisational commitment is a psychological state that characterises an employee's relationship with the organisation. It has implications for the decision to continue or discontinue membership in the organisation (Meyer and Allen, 1991). Meyer and Allen (1991) include three facets of organisational commitment: affective commitment defined as an emotional attachment to an organisation characterised by acceptance of organisational values and by the willingness to remain with the organisation; continuous commitment which reflects a need to remain, and results from the awareness of the costs associated with leaving the organisation; and normative commitment which results from internalisation of a loyalty norm and is defined as a perceived duty to support the organisation and its activities. Normative commitment reflects employee feelings that they ought to remain with the organisation (see also Somers, 1995). As stated by Meyer and Allen (1991, p. 73), the binding to an organisation is the common denominator in all three conceptualisations of commitment. If reduction of commitment is the only concern of researchers or managers, the differences among the various conceptualisations become somewhat irrelevant and one form of commitment may be as good as another. The likelihood of leaving the organisation decreases as any one of the three components increases in strength, although the effects of the three components on on-the-job behaviour might be different.

13.3. Formality of learning and development

According to Ichniowsky et al. (1997) and Batt (2002) human resources practices may increase employee commitment and lower quit rates. Various studies have provided empirical evidence on the positive relationship between learning and development, or human resource development (HRD) and employee commitment (such as Meyer and Smith, 2000; Benson, 2006) and a lower intention to leave (Maurer et al., 2003). Bartlett (2001) for instance found a positive relationship between the number of training events and affective commitment, and Birdie et al. (1997) demonstrated a positive relationship between organisational commitment and training time spent in different categories of development. Benson (2006) studied the relationship between organisational commitment and employee development activities such as company classes and on-the-job training and found mixed support for the hypothesis that participation in this type of development is positively related to commitment. Only the number of days spent in on-the-job training over the past year was significantly related to organisational commitment, while company classes were not. This former type of learning and development probably is much more firm-specific than the latter one. Lynch (1991) found that workers who have attended some form of firm-specific on-the-job training were less likely to leave their employer, while those who participated in some form of more general off-the-job training were more likely to leave. Garavan et al. (2002) found a paradigm shift from formalised and discontinuous learning to increasingly informal and real-time situated learning.

From these results it could be hypothesised that this shift to a more informal way of learning and development will lead to a higher level of employee organisational commitment. A core problem, however, is that the relevant literature shows a complete lack of agreement about what formal, non-formal and informal ways of learning are, or what the boundaries between them might be (Kwakman, 1992; Malcolm et al., 2003). Colley et al. (2003) concluded that all, or almost all, learning situations hold attributes of formality and informality. Formal, informal, and non-formal learning are not discrete categories, and to think that they are is to misunderstand the nature of learning. They grouped the attributes of learning into four aspects: location/setting, process, purpose, and content. This categorisation makes it easier to analyse learning in diverse situations, and to recognise changes to learning if the balance between attributes of formality and informality shifts. Other authors point to this continuum of formal and informal learning aspects as well (Simons, 1995; Boekaerts and Minnaert, 1999; Stern and Sommerlad, 1999). They point to an 'HRD intervention's level of formality' implying that each

HRD initiative is formal or informal to a more or lesser degree and assigning a high level of formality referring to an averagely formal intervention, and a low level of formality to an averagely informal HRD intervention (de Bruin, 2007). It then could be hypothesised that a higher level of formality of HRD interventions will lead to a lower level of organisational commitment.

Hypothesis 1: the level of formality of learning and development activities negatively correlates with employee's organisational commitment, the higher the formality level the lower organisational commitment (H1 in Figure 13:1).

13.4. Older workers' learning and development and their organisational commitment

In many organisations, all workers are increasingly being called on to be involved in learning and development activities to prevent skill shortages and to improve their commitment to the organisation they work for. Various studies reveal that participation by older people in formal learning and development declines with age and that older workers remain underrepresented in most forms of training and education (Maurer et al., 2003). Young adults in the 25-34 age group are almost twice as likely to undergo training as older people aged 54-64 (ILO, 2002), and investing in learning and development is mostly focused on employees with a maximum of two years service in the company (TNS/NIPO, 2008), which in most cases are the younger employees.

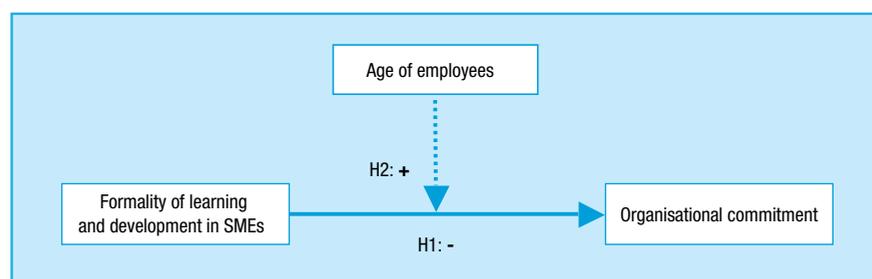
One reason for the underrepresentation of older workers and for the lower degree of support and encouragement they receive from supervisors and other people at work when engaging in learning and development (Maurer et al., 2003) may be the unfounded stereotyping of these employees: they are seen as less mobile and flexible than their younger counterparts, less able to deal with rapid changes occurring in organisations and less productive (Dorhout et al., 2002; Van Dalen et al., 2007). Age discrimination underlies many of the difficulties faced by older workers in the labour market. However, no empirical evidence exists for this preconception towards the abilities of older workers (ILO, 2002). On the contrary, it could be stated that older workers can be more innovative and productive because they are more independent and experienced than younger ones (Opinion Leader Research, 2004). Older employees also show significantly more organisational commitment (Bartlett, 1991; Meyer et al., 1993) although this relationship is weak for affective commitment (Mathieu and Zajac, 1990). Age seems to be particularly related to normative and continuous commitment.

Due to their lower participation in training activities, older employees face problems with career prospects as compared to younger employees (Thijssen, 1996). These employability problems usually increase with the years, resulting in many older workers taking early retirement or spending several years on incapacity before retiring (McGoldrick et al., 2008). The question remains how to ensure that older workers are not neglected in learning and development to keep them employable and committed to their work and organisation. This could be done by providing learning opportunities that are more ‘older worker friendly’ (Walker, 2005), for instance by tailoring them to the preferred learning styles of older workers and to their motivation to attend courses (Rhebergen and Wognum, 1997). Older workers prefer to learn work-based and by means of new experiences, and they consider attractive learning situation-related conditions very important (Thijssen, 1996). Learning by doing, learning on the job and individual coaching are perceived as being far more relevant than formal training and courses. Garavan et al. (2002) assert that a more informal way of learning and development will positively impact on organisational commitment. This is unlike the definition in the managerial literature (Garavan et al, 2002) and in public debate (Van Dalen et al., 2007) where HRD is generally defined as a set of formal practices of learning and development. Therefore, age could be hypothesised as a moderating variable in the relationship between the formality level of learning and development activities and employee organisational commitment.

A second hypothesis suggests that the negative correlation between the formality of learning and development activities and organisational commitment is stronger for older workers than for their younger colleagues (H2 in Figure 13:1).

Below both hypotheses are visualised.

Figure 13:1 Overview of the hypotheses addressed in this chapter



Source: Department of Labour, 2006.

13.5. Method

13.5.1. Sample

HRD has traditionally focused on large organisations, despite the prevalence of small businesses in today's economy. The notion of an HRD intervention's level of formality is, however, important for HRD practices in both small and larger companies, as both types of organisation face a greying workforce. In fact, small and medium-sized companies (SMEs) form the backbone of most European countries; 99 % of companies have less than 250 employees (European Commission, 2003) and a large percentage of the SME workforce is preparing for retirement. SMEs are thus more vulnerable to the demographic shift towards old age and keeping their older workers employed and committed is of specific importance for them. Apart from this, the study on learning and development in larger companies is often connected with formal HRD initiatives, while SMEs tend to favour informal learning and development (Wognum and Bartlett, 2002). Larger companies can devote more time and resources to implementing formal initiatives (Beaver and Hutchings, 2005).

A medium-sized company was selected for this study from an Association of Chambers of Commerce database of all Dutch companies in the metal sector with 250 employees or less. The metal sector was selected because of a foreseen shortage of employees due to a declining supply of students graduating from technical studies. Retaining older workers is, therefore, of importance for this sector to meet actual and future needs for sufficiently skilled employees. The selected employee size was based on the frequently used definition of organisational size in SMEs (MKB-Nederland, 2006). The firms on this list were randomly asked by phone for their willingness to participate. This resulted in the selection of a medium-sized metal company in the Netherlands with 165 employees, which was the first company that reacted positively.

13.5.2. Data collection

Data were gathered in December 2007 and January 2008 through an online questionnaire sent to all 105 employees who had an e-mail address (response rate 66 %), and a written questionnaire for the 60 employees who did not have a computer at their disposal (response rate 17 %). The overall response rate was 48 % (n=79) of which 87 % completed the online questionnaire. Both questionnaires contained the same questions distributed over three parts. Part one concerned background questions on age, contract of employment regarding tenure, and number of working hours per week. Part two contained

questions on the level of formality of various learning and development, or HRD activities – also referred to as learning initiatives, interventions or events – in which employees participated in the year preceding data collection. A number of possible interventions were presented, based on Wognum and Bartlett (2002) who distinguished seven categories of more or less structured and formalised learning events. Per category respondents were asked to indicate if they experienced this in the previous year. In case of a positive reply respondents had to write down a concrete example. Formal and informal aspects of each example were examined to measure the formality level, by asking respondents to score each applicable learning event on eight pairs of propositions derived from the attributes of Colley et al. (2003): three for the process attribute, two for location/setting, two for purposes, and one for content. An example of a pair of propositions for the process attribute is ‘I could design my own learning process’, which characterises an informal learning event, versus ‘my learning process was strongly controlled by a trainer/teacher’ which expresses a formal way of learning. An example for the purposes attribute is ‘I could define my own learning goals during the learning event’ as opposed to ‘the learning goals were defined preceding the learning event’. Respondents could score on a Likert scale with five possible answers placed in between each pair of propositions, the most informal proposition at the left side and the most formal at the right side. Part three of the survey contained questions from a Dutch version of the commitment questionnaire of Allen and Meyer (in de Gilder et al., 1997). The questionnaire, used with permission of the Dutch researchers, comprises 24 items, eight for each commitment subscales: affective commitment (ACS), continuous commitment (CCS), and normative commitment (NCS). Each proposition could be answered on a five-point scale, running from 1 (completely disagree) to 5 (completely agree). After having deleted one item for each subscale, Cronbach’s alpha for the entire commitment scale was .87, for ACS .83, CCS .87 and NCS .73.

13.5.3. Data analysis

Descriptive analysis is used to describe the respondents and the variables on learning and development, commitment and formality used in the study. The mean level of formality is calculated by totalling the scores on each pair of propositions and dividing that through the number of propositions for each learning event. Cronbach’s alpha ranges from .49 for the formality level of an external training/course, to .79 for the formality level of self-education/reading relevant literature as learning event. Because the formality scale

holds less than 10 items, an alpha coefficient of .50 is acceptable (Pallant, 2001) implying that all formality scales are internally consistent except for the scale on external training/courses. A correlation analysis explores the relation between all variables. Hypotheses were tested by means of bivariate correlation analysis and hierarchical regression analysis.

13.6. Results

13.6.1. Background information

A preliminary analysis of the data shows that of all 79 respondents 95 % (n=75) are male. The age of all respondents is 43.8 years on average (SD=10.66). Of them 30 % belong to the youngest group of employees aged up to 35, 47 % are part of the group aged 35 to 55, and 23 % of respondents are older than 55 years. A chi-square goodness of fit test showed age as normally distributed ($p=.94$). More than half of respondents (52 %) have been employed in the firm for more than five years, 28 % between one and five years tenure, and 20 % for less than one year. Most respondents (87 %) hold a permanent contract, while 8 % have a temporary employment contract and 5 % are engaged through an external organisation. Of all respondents 95 % have a contract for more than 30 hours per week, while the remaining 5 % are employed for 20 to 30 hours per week. The sample group of respondents well represents the population of all employees of the selected firm, with regard to age, gender and employment.

13.6.2. Formality of learning and development

Table 13:1 presents data on the actual participation of all respondents in courses and other learning and development activities in the year preceding data collection. Data show that 54.5 % of respondents acquired new knowledge or skills through attending formal and external training courses, 54.4 % learned via self-education or reading professional literature, while 51.9 % learned through feedback from colleagues or their supervisor.

Learning while performing a new task, job or project was indicated by 36.7 % of respondents, and learning through networking and contacts with external people, and by means of training on-the-job was mentioned by 35.4 % and 26.6 % respectively. Only 8.9 % of respondents acquired new knowledge and skills from a coach or mentor. It was found that, on average, respondents learned by participating in three out of seven activities of learning and development.

Table 13:1 Percentage of respondents having experienced an activity of learning and development in the year preceding the data gathering, and the mean formality level, standard deviation and Cronbach’s alpha per activity

Learning and development activity	Percentage of respondents	Mean formality score (°)	Standard deviation (SD)	Cronbach’s alpha
External training course	54.5	3.68	.58	.49
Training on-the-job	26.6	3.10	.76	.59
Mentor or coach	8.9	2.66	.34	.75
New task, job or project	36.7	1.78	.52	.67
Feedback from colleagues or supervisor	51.9	1.95	.51	.57
Self-education or reading professional literature	54.4	1.99	.82	.79
Networking/contacting external people	35.4	1.67	.54	.72
Overall level of formality (b)		2.43	.64	

NB: n=79

(°) The five-point formality scale runs from 1 (most informal) to 5 (most formal).

(b) The variable ‘overall level of formality’ concerns the formality level of all learning and development activities, based on the average formality scores.

Data in Table 13:1 also show the overall level of formality of all seven learning and development activities as measured on a five-point scale running from 1 (most informal level) to 5 (most formal level). The overall score of $M=2.43$ ($SD=.64$) indicates that indicated learning events are, on average, more informal than formal. External training courses and training-on-the-job are the learning initiatives with the highest level of formality, $M=3.67$ ($SD=.58$) and $M=3.10$ ($SD=.76$) respectively. A one-sample t-test found these scores significantly higher, and thus more formal than the overall formality score ($t(42)=14.21$, $p<.001$, and $t(20)=4.04$, $p<.01$, respectively). The other activities are, on average, more informal, with ‘networking/contacting external people’ and ‘learning through performing a new task, job or project’ as the most informal ones ($M=1.67$ and 1.78 , and $SD=.54$ and $.52$ respectively). A one-sample t-test showed ‘feedback from colleagues or supervisor’ ($t(40)=6.01$, $p<.001$), ‘self-education or reading professional literature’ ($t(42)=3.55$, $p<.01$), ‘new task, job or project’ ($t(28)=6.73$, $p<.001$) and ‘networking/contacting external people’ ($t(27)=7.39$, $p<.001$) as learning events that score significantly lower and thus more informal than the overall score for level of formality.

13.6.3. Commitment

Table 13:2 presents data on respondents’ affective, continuous and normative commitment to the organisation they work for. Commitment is measured on a five-point scale running from 1 (very low commitment) to 5 (very high commitment).

The data show a moderate overall commitment ($M=3.09$; $SD=.52$). Affective commitment of respondents ($M=.83$; $SD=.58$), indicating their willingness to remain with the company, is significantly higher than overall commitment (one-sample t-test, $t(78)=7.36$, $p<.001$). In contrast, continuous commitment ($M=2.69$; $SD=.91$), indicating a need to remain with the company, is significantly lower than overall commitment ($t(78)=3.90$, $p<.001$).

Table 13:2 Affective, continuous and normative commitment: number of items, Cronbach’s alpha, means and standard deviations

Commitment scale (°)	Number of items	Cronbach’s alpha (°)	Mean (M) (°)	Standard deviation (SD)
ACS	7	.83	3.57	.58
CCS	7	.87	2.69	.91
NCS	7	.73	3.01	.56
Overall commitment	21	.87	3.09	.52

(°) ACS = affective commitment scale, CCS = continuous commitment scale, NCS = normative commitment scale.

(°) Cronbach’s alpha after deletion of one item of each commitment scale.

(°) Commitment is measured on a five-point scale running from 1 (very low commitment) to 5 (very high commitment).

13.6.4. Correlations

Table 13:3 presents the results of a Spearman correlation analysis. Data show a significant and positive correlation between gender and the number of working hours per week ($r=.74$, $p<.01$) and a significant negative correlation between gender and the number of learning activities. The four female respondents more often work part-time and participate in fewer learning activities. No significant correlation was found with commitment. The data also show a significant and positive correlation between age and tenure ($r=.53$, $p<.01$), continuous commitment ($r=.48$, $p<.01$), and overall commitment ($r=.37$, $p<.01$). The older the respondents the longer they are employed in the company and the more they are committed to the organisation they work for. Tenure is significantly and positively correlated with overall commitment ($r=.40$, $p<.01$) and with continuous commitment ($r=.39$, $p<.01$). If respondents are employed for a longer period of time, they become more committed to the organisation and increasingly feel the need to remain with the organisation because of the costs associated with leaving. Tenure is also significantly but negatively related to the number of learning activities, meaning that the longer is the period of employment, the fewer learning activities respondents are involved in. This negative

Table 13:3 Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender															
2. Age	-.05														
3. Tenure	-.05	.53**													
4. Number of working hours per week	-.74**	-.01	.05												
5. Number of learning activities	-.34**	-.49**	-.32**	.29*											
6. External training course	-.26*	-.25*	.16	.14	.53**										
7. Training-on-the-job	-.14	-.27*	-.17	.14	.53**	.20									
8. Mentor or coach	-.07	-.28*	-.32**	.07	.33**	.19	.32**								
9. New task, job or project	-.18	-.38**	-.18	.18	.50**	.11	.20	.04							
10. Feedback from colleagues or supervisor	-.24*	-.27*	-.33**	.24*	.56**	.12	.24*	.21	.05						
11. Self-education or reading literature	-.25*	-.26*	-.28*	.14	.65**	.22	.03	.02	.28*	.24*					
12. Networking/contacting external people	-.17	-.15	-.17	.17	.62**	.14	.15	-.05	.15	.24*	.52**				
13. Affective commitment	-.06	.14	.20	.08	-.04	.10	.10	.06	-.07	-.06	-.18	-.01			
14. Continuous commitment	-.01	.48**	.39**	.03	-.33**	-.02	-.05	-.09	-.24*	-.13	-.35**	-.29*	.34**		
15. Normative commitment	-.09	.01	.21	.07	.02	.12	.05	.12	-.04	-.07	-.07	.03	.57**	.31**	
16. Overall commitment	-.12	.37**	.40**	.13	-.17	.08	.03	-.01	-.15	-.12	-.24*	-.13	.72**	.81**	.71**

* Spearman's rho correlation coefficient significant at p<.05.

** Spearman's rho correlation coefficient significant at p<.01.

correlation is especially pronounced for the learning events 'feedback from colleagues or supervisor' ($r=.33$, $p<.01$), 'mentor or coach' ($r=.32$, $p<.01$), and 'self-education or reading professional literature' ($r=.28$, $p<.05$). The number of working hours per week correlates significantly and positively with the number of learning activities ($r=.29$, $p<.05$) and with 'feedback from colleagues or supervisor' ($r=.24$, $p<.05$). Data also show a significant and negative correlation between age and number of learning activities ($r=.49$, $p<.01$). This goes for six out of seven discerned learning activities, except for 'networking/contacting external people' ($r=.15$, $p>.01$). Significant and positive correlations were also found between some kinds of learning activities, for example 'feedback from colleagues or supervisor' positively correlates with 'self-education or reading professional literature' ($r=.24$, $p<.05$), 'training-on-the-job' ($r=.24$, $p<.05$), and 'networking/contacting external people' ($r=.24$, $p<.05$). A significant and positive correlation was also found between the learning activities 'mentor or coach' and 'training-on-the-job' ($r=.32$, $p<.01$). Some significant correlations were found between various learning activities and the discerned commitment scales. For instance, learning 'new skills by means of self-education or reading professional literature' is negatively correlated with continuous commitment ($r=.35$, $p<.01$) and with the overall commitment scale ($r=.24$, $p<.05$). Continuous commitment is significantly and negatively correlated with learning through a 'new task, job or project'

($r=.24$, $p<.05$), 'networking/contacting external people' ($r=.28$, $p<.05$), and with the overall number of learning activities ($r=.33$, $p<.01$).

13.6.5. Differences between age groups for learning activities, commitment, and formality level

One-way Anova tests were performed to examine whether various age groups differ concerning the learning and development event they experienced and their organisational commitment. Three age groups were used for this analysis: the group of respondents aged up to 35 ($n=24$), the employees aged between 35 and 55 ($n=37$), and the respondents aged 55 and older ($n=18$). For normative and affective commitment, no significant correlation differences between age groups were found, $F(2,76)=1.07$, $p>.05$) and $F(2,76)=1.34$, $p>.05$ respectively. But significant differences were found for continuous commitment ($F(2,76)=6.50$, $p<.01$). A Bonferroni test showed that respondents aged to 35 report a significantly lower continuous commitment ($M=2.12$, $SD=.49$) than the group of respondents aged between 35 and 55 ($M=2.88$, $SD=1.97$), and the group aged 55 and older ($M=2.93$, $SD=1.05$). The costs associated with leaving the company thus play a more substantial role at higher age.

Because age significantly correlates with the number of learning activities that respondents have experienced in the year preceding data collection, a one-way Anova was carried out to uncover possible differences between the three age groups. Data show significant differences in this respect ($F(2,76)=4.99$, $p<.01$). A Bonferroni test showed respondents aged up to 35 having experienced significantly more learning activities ($M=3.67$, $SD=1.53$) than their colleagues aged between 35 and 55 ($M=2.39$, $SD=1.79$), and above 55 ($M=2.23$, $SD=1.60$). Alongside this it was investigated whether differences between age groups could be found in terms of their engagement in specific learning activities. Table 13:4 reports percentages of respondents for each learning activity, distinguished by age group. The data reveal that respondents mostly learn from external training courses, feedback from colleagues or supervisor, and self-education or reading professional literature. Significant differences between age groups were found for two specific learning activities: 'mentor or coach' ($F(2,76)=4.26$, $p<.05$), and 'training on-the-job' ($F(2,76)=5.36$, $p<.01$). Respondents aged up to 35 are significantly more engaged in learning by means of training on-the-job (52.4 %) than their colleagues aged between 35 and 55 (16.7 %) and above 55 (18.2 %).

Younger respondents also learn significantly more often from a mentor or coach (23.8 %) than their colleagues aged between 35 and 55 (2.8 %) and

Table 13:4 Percentage of respondents for specific learning and development activity, divided by age group

Learning and development activity	Age group		
	<35 years	35-55 years	>55 years
External training course	76.2	41.7	54.5
Training-on-the-job *	52.4	16.7	18.2
Mentor or coach *	23.8	2.8	4.5
New task, job or project	47.6	38.9	22.7
Feedback from colleagues or supervisor	71.4	47.2	40.9
Self-education or reading professional literature	61.9	52.8	50.0
Networking/contacting external people	33.3	38.9	31.8

NB: n=79

* significant differences between age groups.

above 55 (4.5 %). Differences between age groups for attending external training courses were found close to significance ($F(2.76)=3.07, p=.05$). One-way Anova tests were also performed to find out whether age groups differ concerning the formality level of the learning and development activities they were engaged in. This only applies to the learning event 'external training course' ($F(2.76)=8.22, p<.01$). Respondents aged between 35 and 55 rated these training courses significantly more formal ($M=4.06, SD=.58$) compared to their younger ($M=3.63, SD=.46$) and their older ($M=3.38, SD=.43$) colleagues.

13.6.6. Differences between the online and paper questionnaire

Data were gathered through an online questionnaire sent to all 105 employees with an e-mail address and using a written questionnaire for the remaining 60 employees who do not have computer access. The overall response rate is 48 % (n=79) of which 87 % completed the digital questionnaire. One-way Anova tests were done to explore possible differences between both groups of respondents. No significant differences were found for age. Both groups, however, differ significantly regarding their continuous commitment ($F(1.77)=4.18, p<.05$). The continuous commitment of respondents who completed the paper version of the questionnaire ($M=3.23, SD=.89$) is significantly higher than the commitment of respondents who completed the online version ($M=2.61, SD=.89$). This also goes for the average level of formality of learning events ($F(1.77)=6.32, p<.05$). For the paper version the formality level is significantly higher than for the online version ($M=2.94, SD=.73$ and $M=2.36, SD=.73$ respectively). Alongside this it was found that respondents who completed the online version significantly more often

learned by means of self-education or reading professional literature than respondents who filled in the paper version ($F(1.77)=5.73, p<.05$).

13.6.7. Correlation between formality level and organisational commitment

The first hypothesis proposes a negative correlation between the level of formality of learning and development activities and employee organisational commitment, i.e. the higher the formality level the lower organisational commitment. This hypothesis was tested by means of bivariate correlation analysis. A correlation between the overall mean formality score and the mean formality scores of each specific learning activity with affective, continuous and normative commitment could be calculated. Table 13:5 reports the results of this analysis. It was found that the overall mean formality does not significantly correlate with any of the commitment scales. For the mean formality of each specific learning activity, just three significant correlations with commitment were found. One concerns a significant and positive correlation between the formality of learning by a mentor or coach and normative commitment ($r=.79, p<.05$). A more formal way of learning by a mentor or coach relates to a higher level of normative commitment. The other two significant results concern a positive correlation between the formality of learning from a new task, job or project with continuous commitment ($r=.45, p<.05$) and with overall organisational commitment ($r=.46, p<.05$). Instead of the expected negative correlation between the level of formality of learning and development activities and employee organisational commitment, three positive correlations were found indicating a higher level of commitment where learning and development activities are more formal. This applies to

Table 13:5 **Bivariate correlation analysis – Formality and commitment**

	ACS	CCS	NCS	Overall commitment
Formality of external training course	.08	-.14	.13	-.01
Formality of training-on-the-job	.11	.02	.14	.05
Formality of mentor or coach	.34	.07	.79*	.33
Formality of new task, job or project	.25	.45*	.10	.46*
Formality of feedback from colleagues or supervisor	.25	.12	.25	.21
Formality of self-education or reading professional literature	-.14	-.18	.02	-.15
Formality of networking/contacting external people	.05	-.11	.09	-.09
Overall level of formality	.20	.17	.19	.21

NB: ACS = affective commitment scale, CCS = continuous commitment scale, NCS = normative commitment scale.
* Spearman's rho correlation coefficient significant at $p<.05$.

normative commitment and learning by a mentor or coach, for continuous commitment as well as overall commitment, and learning from a new task, job or project. Therefore, the first hypothesis should be rejected.

The second hypothesis proposes that the negative correlation between the level of formality of learning and development events and employees' organisational commitment will be stronger for older workers than for their younger colleagues. Although a negative correlation was not found, hierarchical regression analyses were performed to explore for a negative relationship between the overall mean formality score and organisational commitment if moderated by age. Regression results testing hypothesis 2 are reported in Table 13:6. In model 1, regressions are presented in which overall organisational commitment, affective commitment, continuous commitment, and normative commitment are explained by the overall level of formality. It was found that only for overall organisational commitment was this regression significant and that the overall level of formality of learning activities explains a significant part of the variance in overall organisational commitment ($\beta=.27, p<.05$). In model 2, the regression results for overall organisational commitment, affective commitment, continuous commitment, and normative commitment are presented as explained by age. Data show that age only explains a significant part of the variance in overall organisational commitment ($\beta=.37, p<.01$). However, the interaction between age and overall

Table 13:6 Results of regression analysis of overall level of formality of learning and development activities and age resulting in the commitment scales

Variables		Model 1 (β)	Model 2 (β)	Model 3 (β)
Overall commitment	Overall formality	.27 *	.26 *	.30
	Age		.37 **	.39
	Overall formality * age			-.04
Affective commitment scale	Overall formality	.19	.19	1.19
	Age		.17	1.03
	Overall formality * age			-1.34
Continuous commitment scale	Overall formality	.21	.21	-.11
	Age		.50 **	.23
	Overall formality * age			.42
Normative commitment scale	Overall formality	.22	.22	-.23
	Age		.04	-.35
	Overall formality * age			.60

NB: Overall formality = the overall level of formality of all learning and development activities.

* $p<.05$.

** $p<.01$.

level of formality (model 3) is not significant, which implies that age is not a moderator in the relationship between overall level of formality and overall organisational commitment. Interactions between age and affective and normative commitment did not lead to significant regression results either. Only for continuous commitment does the regression analysis (model 2) indicate age as explaining a significant part of the variance ($\beta=.50$, $p<.01$). However, the interaction between age and overall level of formality (model 3) is not significant. Therefore, hypothesis 2 should be rejected as well.

Further analysis was undertaken to explore age as a possible moderator variable. Earlier results showed significant and positive correlations between the formality of learning by mentor or coach and normative commitment, and between continuous commitment and the formality of learning by a new task, job or project. It was found that formality of the learning event 'mentor or coach' positively correlates with normative commitment ($\beta=.45$, $p<.05$). After including the age variable in the regression analysis, and analysing the interaction of both variables, no significant results were found ($\beta=.50$, n.s.; and $\beta=-2.14$, n.s. respectively) which means that age does not moderate the relationship between the formality of learning by a mentor or coach and normative commitment. The analysis also shows that the formality of learning by a new task, job or project significantly and positively correlates with continuous commitment ($\beta=.45$, $p<.05$).

After having included age as an explanatory variable in the regression analysis no significant result is found ($\beta=.22$, n.s.). But including the interaction of age and formality of learning by a new task, job or project yields a significant and positive result ($\beta=1.79$, $p<.05$). This means that age moderates the relationship between the formality of learning by a new task, job or project and continuous commitment. Further analysis showed this relationship as being stronger for respondents aged above 55 ($\beta=.91$, $p<.05$), than for respondents aged between 35 and 55 ($\beta=.42$, n.s.), and below 35 ($\beta=.91$, n.s.).

13.7. Conclusions

The study presented in this chapter examined the relationship between the formality level of HRD initiatives and employees' organisational commitment in a medium-sized metal company in the Netherlands. With rapid population ageing, organisational commitment of employees plays an important role, as highly committed employees are less likely to leave the company to retire. HRD initiatives are expected to increase employee commitment and to lower quit

rates. This specifically seems to hold for more informal practices of learning and development. Larger companies have more time and resources for formal kinds of HRD initiatives, while SMEs tend to favour informal learning and development activities. But almost all learning situations hold attributes of formality and informality, implying that each HRD initiative is formal or informal to a certain degree. In this study a negative relationship is hypothesised between the formality level of HRD initiatives and employee commitment, meaning that a higher level of formality will lead to a lower level of organisational commitment. It is also hypothesised that this relationship is stronger for older workers than for their younger colleagues. Older employees are less inclined to leave the company when they are engaged in learning and development events tailored to their preferred learning styles. They prefer to learn on-the-job more informally and to learn by means of new experiences.

The findings in this chapter do not support the hypotheses. Nevertheless, some interesting results were found. The learning and development events in the company studied were, on average, more informal than formal, which supports the often found result that SMEs tend to favour informal learning and development. The three most frequently experienced learning events for young and older employees were 'self-education or reading professional literature', 'external training course', and 'feedback from colleagues or supervisor'.

The findings also support the notion that older workers are not sufficiently involved in lifelong learning. This insufficient involvement is also found for workers who are employed for a longer period of time. The learning events 'feedback from colleagues or supervisor', 'mentor or coach', and 'training-on-the-job' particularly decline as tenure increases. This confirms a recent TNS/NIPO (2008) study stating that 95 % of Dutch companies invest in training mostly for employees with five years of employment or less. Most of these organisations focus investments on the first two years of employment. Older workers significantly experience a longer period of employment, as well as less variety in learning and development, than their younger colleagues, as was found in the reported study. This is striking as the company under investigation employs a workforce whose average age is nearly 44 years. Older workers also form a relatively large portion of the whole group of employees (23 %). Severe problems can be expected should these workers take early retirement or spend several years on incapacity before retiring.

A significant and positive correlation was found between the formality of learning by a new task, job or project and continuous commitment, which is moderated by age. This could imply that older workers become more continuous committed

when they learn more formally in a new task, job or project, although causality was not studied. This relationship is even stronger for respondents aged above 55, than for colleagues in the other age groups. This finding supports the conclusion of, for example, Bartlett (1991) on older workers showing significantly more organisational commitment, and of Meyer et al. (1993) on a positive correlation with continuous commitment in particular. These results also support the findings of Thijssen (1996) and Rhebergen and Wognum (1997) on older workers who prefer to learn work-based and by means of new experiences. This finding opens ways to arrange new learning and development initiatives to improve older workers' organisational commitment and prevent them from exiting early. It also adds new insights to the public debate in which the knowledge development of older workers has often been narrowed to formal training courses (Van Dalen et al., 2007). Van Dalen et al. (2007) point to the self-reported preferences of older workers for learning new skills and knowledge by doing practical tasks, and through consulting experienced colleagues.

13.8. Discussion and suggestions for further research

The findings should be treated with care because the study was done in a single medium sized Dutch metal firm. The metal sector was selected because of a foreseen lack of employees and a greying workforce. A medium-sized company was selected because SMEs are more vulnerable to the demographic shift towards old age, and because, unlike larger companies, they tend to favour informal learning and development. Although the sample of respondents represents the composition of personnel in the firm studied, the results cannot be generalised to other firms in the metal sector, to firms in other sectors of industry, or larger companies. Further research is needed among more metal companies in the Netherlands and abroad, among SMEs in other sectors of industry, and among various large companies.

Another remark should be made concerning the newly developed formality scale. Based on Colley et al. (2003) four groups of attributes of formality and informality concerning learning and development initiatives were distinguished: location/setting, process, purpose, and content. A first exploration through a factor analysis with varimax rotation showed four components as well. But the attributes of Colley et al. (2003) seem to be mixed to a certain extent. New research among many companies is needed to study further the specific structure of all discerned attributes of formality and informality concerning HRD activities.

Greater involvement of older workers in learning and development activities is fundamental to support organisational commitment and their participation. To be successful, companies have to arrange learning and development initiatives which combine formal and informal aspects. The results of this study raise questions on the specific composition of these formal and informal aspects. Which aspects should be more or less formal or informal? When should, for example, the learning content be formal while learning process, place or setting as well as the formulation of learning goals, should be more informal? Does this depend on specific competences to be learned, or a specific target group? Further research is needed to address these issues.

Findings from other studies suggest that the nature and strength of the relationship between formality of learning activities and commitment might be determined by how employees perceive the situational characteristics and organisational support valuing their commitment (Maurer et al., 2003; Meyer and Smith, 2000; Eisenberger et al., 1986). Some studies point to specific personal characteristics that are important in improving organisational commitment, such as conscientiousness (Snijders-Blok, 2008), older workers' developmental potential (Schakel et al., 2006), or self-efficacy (Maurer et al., 2003). According to Maurer et al. (2003) favourable situational conditions will positively influence self-efficacy for development. These are variables such as work support for development by supervisors and co-workers along with the availability of development and learning resources and policies that support and encourage development. In their study, older workers were receiving less support for development (Köroğlu, 2008) and generally possess fewer individual characteristics such as learning preparedness that should improve development. Maurer et al. (2003) also found that being relatively old at work is a key concern with respect to learning and development rather than one's absolute, chronological age. 'Being older in a young group might lead to less support and encouragement to pursue challenging assignments that require intensive learning if there are younger individuals who might be perceived to be more appropriate for such assignments' (Maurer et al., 2003, p. 718). Maurer et al. suggest that attention in the workplace to employees' relative age (and not just chronological age) should be a concern when addressing possible age bias or discrimination in development. Therefore, further studies on older workers' involvement in learning and development and their organisational commitment should consider situational characteristics, organisational support and employees' relative age. These further studies could also include variables concerning employees' prior education (Maurer et al., 2003) or occupational level. In the study reported in this chapter

significant differences were found between respondents having completed the paper questionnaire (mostly respondents with lower or less complex functions and a lower education level) and those having filled in the online version. Online respondents, for example, learned significantly more often by means of self-education or reading professional literature than respondents completing the paper questionnaire.

References

- Bartlett, K. (1991). *The relationship between training and organizational commitment in the health care field*. Illinois: Lincoln University (PhD thesis).
- Bartlett, K. (2001). The relationship between training and organizational commitment: a study in the health care. *Human Resource Development Quarterly*, Vol. 12, No 4, p. 335-353.
- Batt, R. (2002). Managing customer services: human resource practices, quit rates, and sales growth. *Academy of Management Journal*, No 45, p. 587-597.
- Beaver, G.; Hutchings, K. (2005). Training and developing an age diverse workforce in SMEs. The need for a strategic approach. *Education & Training*, Vol. 47, No 8/9, p. 592-604.
- Benson, G.S. (2006). Employee development, commitment and intention to turnover: a test of 'employability' policies in action. *Human Resource Management Journal*, Vol. 16, No 2, p 173-192.
- Birdie, K. et al. (1997). Correlates and perceived outcomes of four types of employee development activity. *Journal of Applied Psychology*, Vol. 82, No 6, p. 845-857.
- Boekaerts, M.; Minnaert, A. (1999). Self-regulation with respect to informal learning. *International Journal of Educational Research*, Vol. 31, No 6, p. 533-544.
- Colley, H. et al. (2003). *Informality and formality in learning: a report for the Learning and Skills Research Centre*. Leeds: Lifelong Learning Institute.
- de Bruin, A. (2007). *Effecten van formaliteit van mentoring en het leerklimaat op self-efficacy en organisatiebetrokkenheid* [Effects of formality of mentoring and learning climate on self efficacy and organizational commitment]. Department of Work and Organization Psychology, Faculty of Behavioral Sciences. Enschede: University of Twente (Master thesis).

- de Gilder, D. et al. (1997). Het 3 componentenmodel van commitment. *Gedrag en Organisatie*, 1997, Vol. 10, No 2, p. 95-106.
- Dorhout, P. et al. (2002). *Hebben ouderen de toekomst? Een literatuur-overzicht ouderen en arbeid* [Do elderly people have the future? A literature review on older people and work]. Amsterdam: Faculty of Economics and Business, University of Amsterdam (Scholar).
- Eisenberger, R. et al. (1986). Perceived organisational support. *Journal of Applied Psychology*, No 71, p. 500-507.
- European Commission (2003). Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC). *Official Journal of the European Union*, 20 May 2003, L 124, p. 36-41.
- Garavan, T.N. et al. (2002). Human resource development and workplace learning: emerging theoretical perspectives and organisational practices. *Journal of European Industrial Training*, Vol. 26, Nos 2, 3, 4, p. 60-71.
- Goslinga, S. (2001). Betrokkenheid bij een belangenorganisatie [Commitment with a community of interest]. *Gedrag en Organisatie*, Vol. 14, No 4, p. 191-200.
- Ichniowsky, C. et al. (1997). The effects of human resource management practices on productivity: a study of steel finishing lines. *American Economic Review*, No 87, p. 291-312.
- ILO (2002). *An inclusive society for an ageing population: the employment and protection challenge*. Paper contributed by the ILO to the second world assembly on ageing, 8-12 April 2002, Madrid. Geneva: ILO – International Labour Organisation.
- Köroğlu, B. (2008). *Meten en verbeteren van opleidingseffecten* [Measuring and improving HRD effects]. Enschede: University of Twente, (Master thesis).
- Kwakman, C.H.E. (1992). *Intentioneel en informeel leren in arbeidsorganisaties* [Intentional and informal learning in work organisations]. Nijmegen: Katholieke Universiteit Nijmegen (Master thesis).
- Lynch, L. (1991). The role of off-the-job vs on-the-job training for the mobility of women workers. *American Economic Review*, Vol. 81, No 2, p. 299-312.
- Malcolm, J. et al. (2003). The interrelations between formal and informal learning. *Journal of Workplace Learning*, No 15, p. 313–318.
- Mathieu, J.E.; Zajac, D. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, No 108, p. 171-194.

- Maurer, T.J. (2003). A model of involvement in work-related learning and development activity: the effects of individual, situational, motivational, and age variables. *Journal of Applied Psychology*, Vol. 88, No 4, p. 707-724.
- McGoldrick, J. et al. (2008). *HRD, human capital and talent management of an older workforce: evidence based policy development in the Scottish Government*. The 9th International conference on human resource development research and practice across Europe, 21-23 May 2008. Lille: IÉSEG School of Management (Ref. 1.38).
- Meyer, J.; Allen, N. (1991). A three component conceptualisation of organisational commitment. *Human Resource Management Review*, No 1, p. 61-89.
- Meyer, J.P.; Smith, C.A. (2000). HRM practices and organizational commitment: test of a mediation model. *Canadian Journal of Administrative Sciences*, Vol. 17, No 4, p. 319-331.
- Meyer, J.P. et al. (1993). Commitment to organisations and occupations: extension and test of a three-component conceptualisation. *Journal of Applied Psychology*, Vol. 78, No 4, p. 538-551.
- MKB-Nederland (2006). *Jaarbericht Koninklijke Vereniging MKB-Nederland 2006-2007* [Annual report Royal Society SME-the Netherlands 2006-2007]. Schiedam: TDS printmaildata.
- Opinion Leader Research (2004). *Young guns, mature minds. Working nation, views from people at work. A research study on behalf of Vodafone UK*. Newbury, Berkshire: Vodafone.
- Pallant, J. (2001). *SPSS survival manual: a step by step guide to data analysis using SPSS for Windows (version 10 and 11)*. Buckingham: Open University Press.
- Rhebergen, B.; Wognum, I. (1997). Supporting the career development of older employees: an HRD study in a Dutch company. *International Journal of Training and Development*, Vol. 1, No 3, p. 191-198.
- Schakel, L.; et al. (2006). *Age related employability: shifting competences in personality profiles*. Paper presented at the Seventh International Conference on HRD research and practice across Europe, Tilburg, 22-24 May 2006 (Proceedings 41-2).
- Simons, R.J. (1995). Leren in arbeidsorganisaties: dichotomieën of evenwichten? [Learning in work organizations: dichotomies or balances?]. *Opleiding & Ontwikkeling*, Vol. 8, No 4, p. 5-10.

- SER (2005). *Van alle leeftijden: een toekomstgericht ouderenbeleid op het terrein van werk, inkomen, pensioenen en zorg* [Of all ages: a future oriented age-related policy in the field of work, income, retirement pensions, and care]. No 2, 21 January 2002, The Hague: SER – Social Economic Council.
- Snijders Blok, M. (2008). *Leeftijd en motivatie tot leren en transfereren* [Age and motivation to learn and to transfer]. Enschede: University of Twente (Bachelor thesis).
- Somers, M.J. (1995). Organisational commitment, turnover and absenteeism: an examination of direct and interaction effects. *Journal of Organizational Behavior*, Vol. 16, No 1, p. 49-58.
- Stern, E.; Sommerlad, E. (1999). *Workplace learning, culture and performance*. London: Institute of Personnel and Development.
- Thijssen, J.G.L. (1996). *Leren, leeftijd en loopbaanperspectief* [Learning, age and career perspectives]. Bilthoven: University of Tilburg (PhD thesis).
- TNS/NIPO (2008). *HR-Benchmark- research: waar staat u*. Amersfoort: RAET.
- Van Dalen, H. et al. (2007). *Oudere werknemers door de lens van de werkgever* [Older employees through the lens of the employer]. The Hague: NIDI (Report No 74).
- Walker, A. (2005). The emergence of age management in Europe. *International Journal of Organizational Behaviour*, Vol. 10, No 1, p. 685-697.
- Wognum, A.A.M.; Bartlett, K.R. (2002). An examination of HRD in response to strategic learning needs in SMEs. *International journal of Human Resources Development and Management*, Vol. 2, No 1/2, p. 170-186.