Introduction

Employment and career opportunities of employees are largely determined by the socio-economic context in which vocations are situated (Prince 2003). Lifetime employment has drastically lost ground. This has affected the characteristics of employment relationship in a profound way, and consequently employee preparation for the labour market (Prince 2003; Nauta et al. 2009). In order to guarantee being and remaining employed, employees have to improve their employability by investing continuously in their learning and development. The latter requires employees to be self-directed in choosing and developing career paths and the selection of successful routes in their lifelong learning (Abele and Wiese, 2008). This is true for both high and low educated employees. Self-directedness in learning and career have become key competences for employees at all levels.

A focus on low-qualified employees (i.e. employees who have no certificate of initial secondary or vocational education) is interesting from different perspectives. Firstly, most studies to date rather focus on higher qualified employees (Forrier and Sels 2005; Long and Morris 1995). These studies show that self-directedness strengthens their labour market position. However, low-qualified employees experience an increasingly difficult labour market position, especially due to volatile labour market conditions in which higher qualified applicants are willing to take up lower-qualified jobs (Brown et al. 2003; Büchel et al. 2003). Secondly, employers often tend to treat low-qualified employees as an undifferentiated group, even though some studies have established substantial diversity within the low-qualified work force (cf. Sanders and de Grip 2004). Thirdly, access to employability improvement possibilities (i.e., through training and development) is unevenly distributed and primarily favours those who possess prior qualifications.

This paper analyses whether lower-qualified workers have higher employability chances when they adopt a higher level of self-directedness in relation to their learning and career development. A further understanding of this relationship between self-directedness and employability could help to
effectively manage the (competence) development of low-qualified workforce. Our research question therefore is: Are self-directedness in learning and self-directedness in career significant predictors of the employability of low-qualified employees?

Conceptual research framework

Self directedness and employability

Studies are scarce that centred on the relationship between self-directedness (both of learning and in career) and job performance (See e.g. Durr et al. 1994; Jude-York 1993; Noe 1996; Yu 1998) or on other measures of career success, such as employability (see e.g. King 2004; Seibert et al., 1999, 2001; Van Loo 2005). According to Hillage and Pollard (1998) and Brown, Hesketh and Williams (2003) employability is the probability of a) gaining initial employment, b) maintaining employment and c) obtaining new employment (internal or external). As we focus on lower qualified who are employed, the first aspect, i.e., the finding of initial employment, is not taken into consideration. We distinguish between two dimensions in which a worker’s employability can become manifest, i.e.: (1) job retention: the capability of maintaining employment and (2) job mobility: the capability of realising horizontal or vertical mobility. Horizontal mobility refers to job shifts that do not reflect changes in task execution requirements. Vertical job mobility refers to job shifts that results carrying out more complex or easier task execution requirements (xxxxx).

With regard to the concept of self-directedness we make a distinction between, self-directedness in learning and self-directedness in vocational career as both are positive determinants of a worker’s employability (Marx, et al. 2004). The concept of self directedness (Deci and Ryan, 1996) has mainly been studied in the context of learning processes. Therefore, there is a lack of empirical research pertaining to self-directed learning of employees. Self-directedness in learning is related to the capability of “taking an active and self-starting approach in work-related learning activities and situations, and to persist in overcoming barriers or setbacks” (Raemdonck et al. 2008). Self-directedness in career is different from the former by the emphasis on he career promotion activities, such as networking, work exploration, self-presentation that facilitate employee employability, i.e.: being capable of (1) maintaining a job, (2) realizing a higher level of horizontal or vertical job mobility.
In their study on low versus high-qualified employees, Raemdonck, Thijssen and Valcke (2005) found that both types of self-directedness are interrelated but still can be considered as distinct conceptions. This is in line with the study of Brockett and Hiemstra (1991) who stress that the concept of self-directedness in adult learning should not be limited to the concept of learning, but should also encompass the context in which this learning occurs, i.e., the career. They state that a broader approach of self-directedness provides the span needed to develop a fuller picture of vocational learning (Owen 2002). Following Raemdonck (2006), we define ‘self-directedness in learning’ as an adaptive process that helps to cope on the labour market. ‘Learning process’ is defined as informal and formal work-related activities that result in the achievement of work-related goals, such as mastering new tasks or updating skills and knowledge. We define ‘self-directedness in career’ as adaptive career processes to cope with and influence one’s position on the labour market. ‘Career process’ is defined as a career activities resulting in the achievement of career-related goals, such as an increase in rewards, horizontal or vertical job moves or a more favourable career prospect (see Van Loo 2005).

Both types of self-directedness influence career positions; implying that employees who take a self-directed approach towards their learning and career are expected to improve their employability chances (Raemdonck 2006), i.e. maintaining job retention or increasing job mobility (Sanders and De Grip 2004). A study of Van Loo (2005), involving administration employees, shows that an investment in a general training to counter skills deficiencies raised their chance of remaining employed. Jones and Bergmann Lichtenstein (2000) in a study among managers, revealed that managers who are self-directed in their career ascertain their jobs more effectively. Kuijpers (2003) found that self-directedness in career contributes to job retention success. Based on these findings, we are interested gauging whether employees with lower levels of self-directedness in learning and career run a higher risk for job loss. We assume that self-directedness in learning and career has positive effects on job retention. In addition we assume that self-directedness in learning and career are also advantageous for job mobility (Van der Heijde and Van der Heijden 2006). By the same argument, refraining to invest in learning and career activities decreases one’s chances of job mobility (De Grip et al. 2004). In contrast, employees who are not self-directed run a higher risk that their knowledge and skills become obsolete. They also give a negative signal about their employability to current and future employers. Sanders and De Grip (2004) show that - among low-qualified employees - there is a clear effect of training
participation on (internal) mobility. We build on the latter to hypothesize that self-directedness in learning and career will have a positive impact on horizontal and vertical job mobility.

*Contextual factors and employability*

Both types of self-directedness play a role in a complex setting in which next of individual variables and processes, also external variables and processes play role. Next to individual characteristics, i.e. the execution of individual capabilities (referred to as *absolute* predictors by Brown at al. 2003), also factors outside the employee play a role; such as their work environment, labour market conditions, and the general socio-economic employment context (*relative* predictors, according to Brown at al. 2003). In the present study, the experienced influence of labour market conditions on one’s opportunities of job success, is taken into consideration. Also the nature of the actual work environment in which an employee operates, is taken into account. A study by De Grip, Van Loo and Sanders (2004) shows that the industry sector plays a role in the employability level of employees. Earlier research additionally pointed at age and gender as predictors of employability (Berntson, Sverke and Marklund 2006; Vuori and Vesalainen 1999).

Figure 1 gives a graphical representation of the interrelations in the our conceptual research framework.

< Insert Figure 1 about here>

*Method*

*Sample and procedure*

A follow up research design with two measurement occasions was applied. During a first measurement occasion at time 0, data about the degree of self-directedness in learning and career of 408 low-qualified employed personnel from 35 companies located in Flanders were collected, together with data about the control variables. One year later, at time 1, data about the dependent variables (job retention or change) was obtained to map changes in job position relative to the prediction variables (SDL and SDC). Respondents were contacted individually to be evaluated about two elements of their current employability situation (job retention and job mobility). A total of 348 respondents, who participated in
the first part of the study, gave their consent to be contacted at time 1 (85 % response rate). Finally, 248 of them (82%) effectively took part in the second measurement, by means of a telephone interview. Drop-out was unsystematic and mainly due to scheduling problems, job shifts rotation, etc (see below for an analysis of drop-out ratios). Industry sectors of the companies where respondents were employed pertained to the energy sector, the chemical industry and the food industry. Industry sector was determined on basis of the BELFIRST-database; a database containing information about companies located in Belgium. Reasons to select companies from these particular industry sectors are based on two motives: (1) the larger presence of low-qualified employees and (2) the level of investment in formal training. Companies with ≥ 20 employees - thereby avoiding small firms - and with the European Nomenclature of Economic activities (NACE-codes 15, 24, 40, 41) were contacted for participation. Respondents needed to have at least six months of work experience in their company to be retained in the sample. ‘Low-qualified’ was defined as a person with no diploma of initial secondary education. In addition lower initial qualification participants carried out a wide variety of tasks,

As we can expect response bias when issuing written questionnaires to low-qualified employees, it was decided to administer the questionnaires individually during work time. During the first measurement, the questionnaire was read aloud to the employees to overcome problems with reading comprehension. During the second measurement employees were interviewed by phone by a member of the research team. Interviewers were trained and followed a scripted protocol.

**Respondents**

The average age of respondents was about 39 years (SD= 9.36) with an average year of work experience of 20 years and 48 months (SD= 10.31). A majority of participants was male (66%) and of Belgian nationality (94,8%). A systematic drop-out analysis was carried out to study potential bias influencing non-participation in the follow-up study. A series of $t$-tests was performed in order to determine whether there were differences (1) between the subjects who were willing to cooperate for the follow-up study and those who were not willing to cooperate and (2) between those who actually cooperated and subjects who wanted to cooperate but could not be reached after being contacted.

**Sample characteristics**
Four significant predictors were identified for willingness to cooperate in the follow-up study: lower scores on self-directedness in learning ($t = -2.29, p < .05$) and career ($t = -3.04, p < .01$). Also, employees working in the food industry were less likely to participate in the time 1-sample ($t = 4.24, p < .001$). Participants working in the chemical industry were overrepresented in the follow-up study ($t = -3.71, p < .001$). No significant differences were found between subjects who were willing to be interviewed and actually were interviewed or between those who were willing to be interviewed but we were unable to reach by phone. The complete procedure was reviewed by an ethical advisory committee. Respondents gave informed consent to participate in the study.

Research instruments

- Time 0 - baseline measurement

Self-directedness in learning and self-directedness in career was measured by the SDL-scale and SDC-scale (Raemdonck 2006). Both scales measure an employee’s perceptions about the extent to which they shape their own learning processes or career processes. Both scales consist of 14 items and reflect a one-dimensional structure. Each questionnaire item asks respondents (on a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree) to indicate to what extent the statement is applicable to them. An exemplary item is: ‘Last year, I learned a lot of new things relevant for my job on my own initiative.’ (SDL-scale) and ‘I keep myself informed about new possibilities to develop my career.’ (SDC-scale). The scales were piloted with a large group of low-qualified and high-qualified employees and showed high reliability and validity (Raemdonck 2006). In the present study the Cronbach’s alpha for the SDL-scale was .81 and .88 for the SDC-scale.

Control variables. Perceived labour market condition was assessed with a nominal item having a 3-point range from 1 = few work opportunities on the labour market to 3 = many work opportunities on the labour market. The participants were also asked to evaluate the availability of personal work opportunities in the labour market at time 1. As depicted in Figure 1, we additionally controlled for the following antecedent variables: sector of industry (3 categories), age and sex.

- Time 1 measuring changes over time

Employability. Employability was assessed one year after time 0, with an interview that focused on a number of objective employment measures (cf. De Grip et al., 2004). Job retention was measured by asking respondents whether they were still working within the same organization, or whether they left
voluntary or not. Respondents were coded A for stayers, B for voluntary leavers and C for forced leavers. The second dimension, job mobility, was assessed by asking respondents whether there was any horizontal or vertical job change at time 1 with A for ‘no mobility’, B for ‘horizontal job mobility’, and C for ‘vertical job mobility’.

Data-analysis

Confirmatory factor analysis, including the SDL-items and the SDC-items, was performed on the original scales, showing that the items of both scales loaded on different factors (see Raemdonck 2006). Therefore, it was assumed that overlap between both types of self-directedness was limited.

Research expectations were tested by carrying out multinomial logistic regression analyses. The effect of self-directedness in learning and career (predictors) was examined on the latent construct ‘employability’. Since logistic regression is sensitive to multicollinearity between criterion variables (see Peng et al. 2002), separate analyses were performed for self-directedness in learning and self-directedness in career. In both analyses, we controlled for the variables: perceived labour market situation, sector of industry (relative predictors), age and gender. Reporting and interpretation of the logistic regression results were based on Agresti (1996), Brace, Kemp and Snelgar (2003), Moore and McCabe (2006), and Peng et al. (2002).

Results

Table 1 summarizes the descriptive analysis results: means, standard deviations and zero-order correlations of the various variables. The table shows that there are significant correlations between predictive variables (self directedness variables) and the criterion variables ‘job retention’ and ‘job mobility’. As expected, a significant correlation between self-directedness in learning and self-directedness in career ($r=0.62, p<.01$) is found.

<Insert Table 1 about here>

Self-directedness and job retention

The logistic regression model with self-directedness in learning as the predictor variable and job retention as criterion variable, is not significant ($\chi^2= 5.54, df= 8, p = .70$). None of the independent variables predict the criterion variable in a significant way (Table 2, model 1).
The model with self-directedness in career as predictor variable and job retention as criterion variable is also not significant ($\chi^2= 6.78$, $df= 8$, $p = .56$). None of the independent variables predict the criterion variable in a significant way (Table 2, model 2).

**Self-directedness and job mobility**

Multinomial regressions are carried out with job mobility as the criterion variable. The model with self-directedness in learning as predictor variable, is significant ($\chi^2= 34.80$, $df= 14$, $p < .01$). This model explains between 14.6% and 17.9% of the variance in job mobility. In this analysis, ‘No job mobility’ is used as the reference category. Table 3 summarizes the regression coefficients and the Wald statistics.

The tested model indicates that self-directedness in learning does not significantly predict ‘horizontal job mobility’ but significantly and positively contributes to the prediction of ‘vertical job mobility’. The value of the coefficient reveals that an increase of one unit in the level of self-directedness in learning is associated with an increase in the odds of vertical job mobility by a factor of 1.09. As to the antecedent variables in the model, employees working in the chemical and food sector are less likely to be horizontally mobile. The odds of horizontal job mobility for working in the energy sector are four times higher than for working in the chemical industry or food industry. Furthermore, employee’s age significantly predicts the probability of vertical job mobility (reference category ‘no job mobility’). A higher age is associated with a considerably lower level of vertical mobility. Finally, the odds of realizing vertical job mobility are 3.9 times higher for employees who perceive more job opportunities as compared to employees who perceive moderate job opportunities. The tested model with self-directedness in career as predictor is significant ($\chi^2= 30.82$, $df= 14$, $p < .01$). This model explains between 12.6% and 15.6% of the variance in job mobility ( ‘No job mobility’ is used as the reference category). The results are presented in Table 4.
Self-directedness in career does not significantly contribute to workers’ ‘horizontal job mobility’ but significantly and positively predicted ‘vertical job changes’. The coefficients reveal that a higher level of self-directedness in career is associated with higher odds of vertical job mobility by a factor of 1.06. Those working in the chemical or food sector are less likely to be horizontally mobile (‘No job mobility’ is used as the reference category). The odds of horizontal job mobility in the energy sector are 3.2 times higher as compared to the chemical industry and 3.1 times higher than in the food industry. The probability of realizing vertical job mobility is significant for age (‘No job mobility’ is used as the reference category). An increase of 1 year in age is associated with a decrease in the odds of vertical job mobility by a factor of 0.86.

Discussion

This study examined the relationship between self-directedness in learning/career and the employability of low-qualified employees working in different industry sectors. We expected that employees with higher levels of self-directedness in their learning and in their career are more capable of (1) maintaining their job and (2) realizing job mobility. Our research findings provide moderate and partial evidence to support the link between self-directedness in learning and career, and employability. However, the relationship between self-directedness in learning and career, and job retention was not confirmed by our findings. This finding differs from the findings in Van Loo (2005) who found that self-directedness in learning, increases the chances for job retention for the administrative staff he analyzed. This can be explained by the fact that almost all low-qualified employees in our study were able to maintain their job employment within the same organization. An alternative explanation is that most respondents had a high job security level, because 94% of the respondents had a permanent contract in a labour market that was booming when the survey was set up.

As for job mobility, a high level of self-directedness in learning and in career did not affect employees’ chances for horizontal job mobility. Similar results were reported by Van Loo (2005) among administrative staff in relation to the impact of their self-directedness in career. Our findings indicate, however, that higher levels of self-directedness in learning and career predict higher chances for vertical job mobility. These results are in line with longitudinal research findings from Kohn and
Schooler (1982) who demonstrated that a self-directed orientation leads - over time - to vertical job mobility. We conclude therefore that opportunities for vertical job mobility are more affected by self-directedness in learning and career than opportunities for horizontal job mobility. Instead, other factors such as the sector of industry in which the employee is employed appear to affect the opportunities for horizontal mobility. The latter is reflected in our findings that show how the chance for horizontal job mobility is higher for employees in the energy sector than for those employed in the chemical or food industry.

Our findings further indicated a strong impact of age on employability. Increased age decreases the chances of vertical job mobility. These results are in line with Sanders and De Grip (2004). An explanation for this significant relationship is that the “human capital” of older workers is more organization-specific which make them less employable for the external labour market. Our findings show that different indicators of employability are linked to different predictors. Self-directedness contributes to an employee’s upward mobility and thus can make lower qualified employee ‘broader’ employable. However, those who are highly self-directed do not have higher chances of maintaining their job or of moving to other related positions. This shows that workers’ employability is a complex concept. It is therefore not surprising that its definition and operationalization varies between studies and that the use of standards and indicators differs depending on the type of employee being studied (see Pollet et al. 2000). This brings us back to the key characteristics of our study in which we focused on lower qualified employees. One needs to be cautious when generalizing the findings of the present study, when discussing the employability of other types of - for instance high-qualified - employees (see Judge et al. 1995).

Although we did find an impact of self-directedness in learning and career on job mobility, it should be noted that a one-year time interval is relatively small and may have underscored lasting or varying changes in employability. Furthermore, a more in-depth analysis would be needed of the impact of self-directedness on lower qualified workers in different stages of the business cycle. Our analysis results also show that workers’ age is a major determinant of the employability of low-qualified employees. Obviously, this requires further research in aging societies where workers have to postpone their retirement because of the rising costs of the expanding retiring population. This raises the question to what extent self-directedness in learning and career at a younger or middle age positively affects workers’ employability at an older age.
Practical implications

Our findings show that self-directedness in learning and self-directedness in career are positively related to vertical job mobility of low-qualified employees. Fostering self-directedness can be achieved by implementing effective learning strategies (on an individual level) and fostering training policies (at the organisational level). Employees can be supported to take initiatives, to invest in their learning, and to participate in training courses, coaching or workplace learning.

There is a growing interest in the notion of self-directedness in learning in response to the growing need for employees to be actively involved in their competence development. This interest has an impact on the demand for new, more aligned training and development strategies (Poell et al. 2004). However, it has also been noted that conditions for utilizing self-directed learning are still unsatisfactory, especially for lower qualified personnel. The latter are hindered by prevailing work regulations, work conditions, and a lack of suitable teaching materials and training facilities. With adequate facilitation it is supposed that employers can provide lower qualified personnel with the opportunities to take control over their own learning and development, and to furnish them with suitable learning environments that promote self direction and autonomy (Deci and Ryan 1985).
References


