Age, Learning, and Employability: The influence of age stereotyping

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Summary

The workforce is greying due to an ageing population and raising retirement age, and organizations will therefore more and more depend on the contributions of older workers. Older workers have acquired their skills and organizational knowledge over the years. Maintaining their skills and knowledge current and stay employable, to keep up with the demands of their jobs, requires older workers to take part in learning and development activities. The participation of older workers in learning activities, however, appears to be lower than of younger workers. Individual factors, as well as age stereotyping are proposed as reasons for the lower training frequency of older workers.

In this study the relation between the worker’s age and employability and the role of learning and workplace age stereotyping in this relation, is assessed. In study 1, a quantitative approach is used, to test the hypotheses of the conceptual model, using a dataset of KU Leuven (n=213), and applying secondary data analysis. In study 2, data is collected with semi-structured interviews (n=5) and qualitative analysis applied, aiming at providing alternative explanations to the results.

In study 1, a subjective approach is used to assess employability. Perceived employability is defined as “the estimated probability of employment by the employee within the organization (i.e., internal employability) and outside the organization (i.e., external employability)”. Formal learnings are assessed by the formal learning opportunities as provided by the organization, and by the participation of the workers in the formal learning activities. Chronological age is used for the age of the worker and supervisor. An indirect approach is used to measure age stereotyping, assuming that direct measuring would be complicated and inaccurate.

In study 1, a negative influence of worker’s age was shown on perceived internal employability ($\beta = -.265, p<.005$) and external ($\beta = -.491, p<.0005$) employability, as assessed by supervisor’s rating, as well as on perceived external employability, as assessed by the worker ($\beta =-.373, p<.0005$), but not on worker’s perceived internal employability. These results indicate that, maintaining their current job, is not perceived as an issue by older workers and may be preferred. It was suggested that these findings may be resulting from personal factors (e.g., motivational, financial), sector specific factors (e.g., tight labor market,
specific labor agreements, valued capabilities) or perceived difficulties finding another job in
the external labor market.

Furthermore, a positive influence of formal learnings on employability was found for perceived internal ($\beta = .335, p<.0005$), as well as for external ($\beta = .309, p<.0005$) employability, as rated by the supervisor. Only a small positive effect of formal learning on perceived internal employability ($\beta = .150, p<.005$) as rated by the worker was shown, but none on worker’s external employability. These findings suggest, that workers do not think that training is increasing their employability. It may be, that the provided training is too short, job- or company-specific, or insufficient to keep up with the demands of the jobs or for alternative opportunities in the labor market.

The results for the relations between age, learning and employability, however, are mixed. Despite that the results of study 1 not support a relation between age and learning, in study 2 there are some indications that age plays a role in this relation, in particular regarding the purpose of providing training and the investment in training for older workers. It may be that the type of learning (formal vs. informal learnings) also plays a role.

Lastly, with the indirect assessment used in this study signs of age stereotyping were shown. These age stereotypes may, when applied, have negative outcomes for current and future older workers.
1. Introduction

The workforce is greying due to an ageing population (Appelbaum et al., 2016; Philips & Siu, 2012) and raising retirement age (Gavrilov & Heuveline, 2003; Toossi, 2012) and organizations will therefore more and more depend on the contributions of older workers. The increased labor participation of older workers is clearly shown in a recent Dutch labor market research. For instance, in the last decade the percentage workers among the 62-year olds increased from 20% to 50%, and the growth of the Dutch labor force market of 500.000, is for 80% attributable to longer working of older workers (UWV, 2017d). From this research it also appears that most of the older workers tend to stay within their jobs and organizations. Between 2009 and 2014 in the age group 55-65 yrs. only 1.0% switched to a new job in another organization; in the age group 25-35 yrs. this was 6.5% (CBS Statline, in UWV, 2017d, p.57).

Not all labor market developments are positive for older workers. For instance, finding another job in another organization, especially after losing the job, is a problem. The long-term (i.e., more than 12 months) unemployment rate in the older age group (>45 years) in 2016 was 65%, implying that two out of three in this age group do not find a new job within a year (UWV, 2017d), and workplace age discrimination may play a role (Ng & Feldman, 2008; UWVd, 2017).

Older workers have acquired their skills and organizational knowledge over the years. The continuously changing work environment and evolution of technology require older workers to take part in learning and development activities to maintain their performance levels and stay employable. Maintaining their skills and knowledge current reduces the risk of a job loss for the worker and strengthens the company’s competitiveness (Van der Heijde & Van der Heijden, 2006). A high degree of employability is therefore beneficial for companies as well as for individual employees (Baruch, 2009; De Cuyper et al., 2011).

Employability refers to an individual’s ability to adequately fulfil work in current or future jobs, in the internal or external labor market (Berntson & Marklund, 2007; Forrier & Sels, 2003a; Vanhercke et al., 2014). As individuals’ characteristics (e.g. abilities, skills and knowledge) contribute to their employability, it is important for employees to develop and update their skills and expertise (Van Loo et al., 2001). Organizations could support their
older workers (Clarke & Patrickson, 2008), for instance by providing learning opportunities, such as formal education, training and competence development, as these can improve their employability (Berntson et al., 2006; Van der Heijde & Van der Heijden, 2006).

Research on the relationship between learning activities and employability, in particular of older workers, is not very extensive, however, highly relevant because of the ageing of the workforce. Results of several studies indicate a lower participation of older workers in learning activities than of younger employees (D’Addio et al., 2010; Gray & McGregor, 2003; Taylor & Walker, 1998; Taylor & Urwin, 2001; Van Dalen et al., 2009), which may be based on age discrimination (Posthuma & Campion, 2009).

The investigation of age stereotypes in the workplace has been of interest for some time (Ng & Feldman, 2012; Posthuma & Campion, 2009). Unlike other forms of stereotypes (such as race and sex), age stereotypes can operate at an unconscious level, even without the intention to discriminate (Krieger, 1995). Furthermore, discrimination is forbidden by law. Therefore examining age stereotypes and discrimination objectively may be complicated; indirectly measuring may, as is proposed for this study, be more appropriate.

Based on the above, the following problem statement can be formulated as: *what is the relation between worker’s age and his/her employability and what is the role of learning activities and workplace age stereotyping in this relation* and will be addressed in this study. In chapter two of this thesis, a conceptual model, including 5 hypotheses, will be designed, based on literature review.

This thesis will include two studies. In Study 1 the hypotheses of the conceptual model will be tested through secondary data analysis. Study 2 aims to address the relation between the worker’s age and employability and the role of learning and workplace age stereotyping in this relation in a qualitative manner and, give direction to alternative theoretical explanations.
2. Theoretical background and hypotheses

2.1 Ageism, age stereotypes and discrimination

The term ‘Ageism’ was first used by Butler in 1969. Ageism refers to discriminating against individuals or groups on the basis of their age (e.g. old age, adolescent, child, middle age) (Nelson, 2016). Workplace age stereotypes are beliefs and expectations about workers based on their age (Chiu et al., 2001; Hamilton & Sherman, 1994). Stereotypes in itself are not a problem, it can even be functional, because they help to understand reality and give meaning to it. It only becomes a problem, if stereotypes lead to preference of a particular group and exclusion of the other group, i.e., discrimination (Schneider, 2005).

In 2020 one of four workers in the US will be 55 or above (Hayutin et al., 2013) and in the UK one in three workers will be above 50 years of age (Department for Work and Pensions, 2013). With the worldwide increasing number of older workers, also the number of potential “targets” of age discrimination is rising. In most western countries, anti-discrimination legislation, including age discrimination at the workplace, is in force e.g., the US, the Act Age Discrimination in Employment Act (ADEA) implemented in 1967, and in the European Union, Directive 2000/78/EC introduced in 2000, requiring the member states to implement national age discrimination laws by 2006.

Negative age stereotypes and age discrimination of supervisors and co-workers are well documented (Ng & Feldman, 2012; Posthuma & Campion, 2009). According to Posthuma and Campion (2009, p.160) ‘managers can hold negative stereotypes about older workers that are subtle or unconscious, yet these may affect how they think about their workers. The result can be discrimination against older workers when they are not hired, not selected for training, or targeted for layoffs. Thus, although the influence may be subtle, the cause may be age stereotypes and the effect, discrimination’.

Learning age stereotypes

The most common workplace age stereotypes of older workers related to learning and development are that older workers are (1) resistant to change (i.e., older workers are harder to train, less flexible, less adaptable, and more resistant to (technology) change, (2) have a lower ability to learn (i.e., older workers will have a lower ability to learn and
therefore have less potential for development) and (3) have a shorter tenure and therefore will provide fewer years in which the employer can earn back the training investments (Greller, 2006; Maurer et al., 2008; Ng & Feldman, 2012; Posthuma & Campion, 2009).

However, the empirical evidence of the validity of these stereotypes is mixed. Ng and Feldman (2012) found in their meta-analysis no evidence for the resistance to change stereotype, as no difference was found for workplace adaptability between younger and older workers. Several studies found that older people share the same learning capacities as younger people (Appelbaum, 2005; Brosi & Kleiner, 1999), that age has a very small effect on one’s learning ability and intelligence (Neisser, 1995) and that older workers have the capacity to learn and improve their job performance from training (Sterns & Doverspike, 1987). Although older workers may have shorter job tenure, in a continuous changing environment, the effect of training may be short. And as younger workers tend to change jobs more frequently than older workers, this stereotype may not be so relevant.

**Theoretical perspectives**

There are different theoretical perspectives to explain the reason for discrimination. The social identity theory approach (Tjafel & Turner, 1979), for instance, indicates that based on individual characteristics, people are categorized as being a member of the same social group (in-group) or not (out-group). This leads to positive cognitive and emotional reactions toward in-group members and negative reactions to out-group members. Byrne and Nelson (1965) suggest in their similarity-attraction model that interaction with people with similar characteristics (e.g. age, race, attitudes) leads to positive reinforcement and therefore could lead to a preference for similar individuals (Peters & Terborg, 1975). These positive reactions could lead to favorable outcomes toward in-group members, or similar individuals, such as learning opportunities or higher employability rating.

### 2.2 Age – the older worker

Who is considered an “older worker” has been debated in the literature for quite some time, as well as different approaches to conceptualize age. The most commonly used concept of age is chronological age or calendar age. By using a cut-off age, everyone with an age above the cut-off is considered as ‘old’ and everyone with an age lower as ‘young’.
Selection of the cut-off varies across studies. In the US Age Discrimination in Employment Act of 1967, the age of 40 is used to distinguish between older and younger workers (Dordoni & Argentero, 2015).

Another approach to age is functional age, which refers to the worker’s performance and considers that there could be variation between individual capacity and functioning (Kooij et al., 2008; Sterns & Doverspike, 1989). The effect of ageing on cognitive and physical functioning varies between people, some function still very well at high age, whereas others suffer from cognitive and physical ageing problems at earlier age (Warr & Fay, 2001).

Besides chronological and functional age, in literature, subjective or psychological age is used, referring to the self-perception of age (how old do you feel yourself?); organizational age, representing the work seniority; and lifespan age, considering changes at any point of life and emphasizing that many variables may impact the ageing process (Sterns & Doverspike, 1989).

Clearly, the concept of age can be approached in various ways. In research chronological age is mostly used, however, in an organizational context considering other approaches can be worthwhile, as functioning, abilities and needs can differ between individual employees of similar chronological age (Van Dam, et al., 2016). Claes and Heymans (2008) even discourage using age as criteria of reference to categorize workers, as it may lead to age stereotypes and age discrimination. In line with most studies, chronological age will be used in the present study.

### 2.3 Employability

For employability, also different conceptualizations are used in literature. Forier and Sels (2003a) define employability as “an individual’s chance of a job in the internal and/or external labor market”, whereby the chance of a job is depending on one’s ability and willingness, as well as contextual factors. Van der Heijde and Van der Heijden (2006, p. 453) use a competence based approach, and employability refers to “the continuous fulfilling, acquiring, or creating of work through the optimal use of competences”.

Employability has been assessed by use of objective indicators of an individual’s labor market positions, such as education, training or job position (Forrier & Sels,
2003a, 2003b; Van Dam, 2004; Worth, 2002). More recent studies use a subjective approach, such as the perceived employability approach of De Cuyper and De Witte (2008) (Vanhercke et al., 2014). De Cuyper & De Witte (2008) define perceived employability as “the estimated probability of employment by the employee” and make a distinction between (1) chance of employment within the organization (i.e., internal employability) and outside the organization (i.e., external employability), and (2) the likelihood of another job (i.e., quantitative employment) versus the chance on a qualitatively better job (i.e., qualitative employability).

**Multi-source rating of perceived employability**

In this study, perceived employability (i.e., perceptions of the employee’s chance of a job in the internal and/or external labor market) will be assessed by multi-source ratings (i.e., the employee’s self-rating and the supervisor’s rating). Multi-source ratings are for instance used for performance assessments. Multi-source ratings add to the validity and the objectivity of the assessment (Brett & Atwater, 2001; Smither et al., 2005; Van der Heijden et al., 2009), and help to prevent common method bias (i.e., variance that is attributable to the measurement method rather than to the construct of interest) (Podsakoff et al., 2003). Method effects might be interpreted in terms of response biases such as halo or horn effects, social desirability, acquiescence or leniency effects’ (Fiske, 1982, p. 426).

Self-ratings of performance are usually higher than supervisor’s rating (Van der Heijden & Nijhof, 2004; Van der Heijden et al., 2009), and are in literature sometimes attributed to leniency effect (i.e., tendency to provide a rosier image of one selves, by emphasizing merits and downplaying faults (Van der Heijden & Nijhof, 2004), but also to different perceptions of the job (Campbell & Lee, 1998).

The supervisor’s rating may, on the other hand, be influenced by biases, as the halo or the horn effect (Lefkowitz, 2000), and (age) stereotyping (Maurer et al., 2003). The halo effect (i.e., when a manager has a general positive impression of someone, based on one or two features or qualities) could, for instance, lead to higher rates. Based on the horn effect, which is the opposite of the halo effect, the employee can get lower ratings, because of one or two perceived negative features. Age stereotyping leads to classifying people into the supervisor’s own, predefined age categories. Based on positive or negative attitudes and
opinions about these age categories, some are liked and get higher ratings, and others are disliked and get lower ratings. If in this study differences in supervisor’s ratings for the various age categories are found, this can be indicative for occurrence of halo or horn effect, or age stereotyping.

Using multi-source data in this study, allows comparison of the worker’s and supervisor’s ratings. It may not prevent occurrence of bias, but it may make it visible. For instance, dissimilar findings between the self-ratings and the ratings of the supervisor, may be an indication of the presence of the aforementioned biases.

2.4 Age and employability

The topic of interest of this study is the employability of the growing ageing workforce. The main challenge for older workers in this continuous changing world is, at a minimum, to stay current in order to adequately fulfil their present job (Van der Heijde & Van der Heijden, 2006), and not so much about finding a better job. This corresponds to the quantitative aspect of the perceived employability concept of De Cuyper & De Witte (2008) and therefore, only perceived quantitative internal and external employability will be taken into account for this study.

Research on the employability of older workers is not very extensive, however, in several studies a negative relation between chronological age and employability is shown (Nauta et al., 2005; Van der Heijden, 2002; Van Vuuren et al., 2011). Limited investment of organizations in older workers, (Van Dam, 2004), different conceptualizations of employability (e.g. job chance in in/external labor market vs. competencies) (Berntson et al., 2006) are suggested as reasons for this negative relation. Also (perceived) age discrimination in the labor market may lead to a lower perceived employability.

In this study, the relation between chronological age and employability will be examined. Following the negative relation of the mentioned studies, it is expected that chronological age will have a negative influence on employability, such that older workers have a lower perceived employability than younger workers.

\textit{H1a: The worker’s age is negatively related to employability as assessed by the worker’s self-rating of perceived (internal and external) employability.}
H1b: The worker’s age is negatively related to employability as assessed by supervisor’s rating of perceived (internal and external) employability.

2.5 Learning and employability

According to the human capital theory of Becker (1962), investments in formal education, training and development lead to human capital in terms of knowledge, skills and health, as well as to a return of investment for organizations (e.g. in terms of higher productivity levels) and for workers (e.g. better job market position and higher rewards) (Becker, 1993). Several studies have, in line with this theory, shown a positive relationship between formal learnings and perceived employability (De Vos et al., 2011; Groot & Maassen van de Brink, 2000; Wittekind et al., 2010). Formal learnings are therefore an important strategy for organizations to ensure the competencies of their workers (Van der Heijden et al., 2009).

Formal learnings take usually the form of classroom training, planned and managed by the organization (Sturges et al., 2002) and can formally be assessed as a measure to predict the employability of the workers (Van der Heijden, et al., 2009). In this study, formal learnings will be assessed by the formal learning opportunities as provided by the organization, and by the participation of the workers in the formal learning activities.

Following the positive findings of the aforementioned studies, it is expected that formal learnings will positively influence employability.

H2a: Formal learnings (rated as learning opportunities by the worker) will have a positive influence on employability as assessed by self-rating of perceived employability.

H2b: Formal learnings (rated as learning activities by the supervisor) will have a positive influence on employability as assessed by supervisor’s rating of perceived employability.

2.6 Age, learning, and employability

Several studies have shown that older workers participate less frequent in training than younger employees (D’Addio et al., 2010; Taylor & Walker, 1998; Taylor & Urwin, 2001). The extent to which employees will take part in learning activities to improve their employability, depends on the provided learning opportunities (Forrier & Sels, 2003a), which
in some studies is shown to be less than for younger workers (Grima, 2011; Van Dalen et al., 2009; Van Vianen et al., 2011). This may be resulting from age stereotypes related to learning (Posthuma and Campion, 2009).

A lower participation of older workers in training and development activities can also be related to individual factors, such as decreased learning orientation (Armstrong-Stassen & Schlosser, 2008; Carstensen, 2006; Van der Heijde & Van der Heijden, 2006). For instance, workers, who are less focused on learning and development, feel less positive about educational activities and therefore less frequently partake in trainings (Armstrong-Stassen & Schlosser, 2008; Maurer et al., 2003).

A decreased learning orientation may be related to changed priority setting due to aging. Psychological theories on motivation and aging, such as socioemotional selectivity theory, may help to explain the relation between age, learning and employability. This theory indicates that with aging, goals and priorities become increasingly selective (Carstensen et al., 1999). Older people tend to focus on goals and activities, that are emotionally meaningful and that can be realized on short term. When learning activities are considered as being meaningful, leading to improved skills and competencies that can be immediately applied in the daily job, older workers are expected to be more motivated to participate in learning activities, and as a consequence improve their employability.

It is expected that the worker’s age is negatively related to formal learnings, such that older workers are being offered less learning opportunities and that older workers participate less frequent in learning activities than younger workers.

*H3a: Worker’s age is negatively related to formal learnings, such that older workers are offered less learning opportunities than younger workers.*

*H3b: Worker’s age is negatively related to formal learnings, such that older workers participate less frequent in learning activities than younger workers.*

*H4a: Formal learnings (learning opportunities as reported by the worker) mediate the relation between worker’s age and perceived employability as rated by the worker.*

*H4b: Formal learnings (learning activities as reported by the supervisor) mediate the relation between worker’s age and perceived employability as rated by the supervisor.*
2.7 Age, learning and employability; and the influence of age stereotyping

Several questionnaires have been developed to measure age discrimination behavior, but they include the risk of social desirability bias. Social desirability bias (i.e., the tendency of survey respondents to answer questions in a manner that will be viewed favorably by others) is a serious problem in research with self-reports, and can lead to over-reporting of good behavior or under-reporting of undesirable (Furnham, 1986; Nederhof, 1985) or even illegal behavior, such as age discrimination. Self-reports on age discrimination behavior, are therefore expected to be inaccurate and underestimating the results, and not useful for this study. Furthermore, age stereotypes can operate at an unconscious level, which may also contribute to inaccuracy of the results. For this reason, the influence of workplace age stereotypes on the relations between age, learnings and employability will be assessed in an indirect manner, in two ways.

Firstly, the indirect assessment will be based on the assumption, that a negative relation between age and perceived employability (hypothesis 1a&b); or between age and learnings (hypothesis 3a&b) may be an indication for (perceived) age stereotyping, as well as dissimilar supervisor and worker ratings. For instance, lower self-ratings for employability, if compared to the supervisor’s ratings, may be an indication of worker’s perceived age discrimination in the labor market, and lower supervisor’s ratings may be an indication of holding age stereotypes. For pragmatic reasons, no additional hypotheses will be formulated, and this assumption will be addressed in the discussion based on the results related to hypotheses 1 and 3.

Secondly, based on the social identity and similarity attraction theory (Byrne & Nelson, 1965; Tjafel & Turner, 1979), it may be hypothesized that supervisors favor workers, that they perceive as being similar to them (e.g. age, gender, education) for instance in providing learning opportunities and higher employability ratings, suggesting that there is no sign of age stereotyping. Therefore, it is expected that, if the age difference between the worker and the supervisor is smaller, the supervisor’s ratings of employability and learning activities are higher.
H5a: It is expected that the supervisor’s ratings of perceived employability are higher, when the age difference between the supervisor and the worker is smaller.

H5b: It is expected that the supervisor’s ratings of learning activities are higher, when the age difference between the supervisor and the worker is smaller.

In figure 1 the conceptual model of this study is presented, including worker’s age, and difference with supervisor’s age; learning opportunities and learning activities; and employability.

Figure 1. Conceptual model
Study 1

In this study, the hypotheses of the conceptual model will be tested, using a secondary data analysis approach. In Chapter 3 the methods of this study will be described. The results of this study will be described in Chapter 4.

3. Methods

3.1 Secondary data

For this study on the relations of age, learning, employability, and workplace age stereotyping, a dataset of KU Leuven will be used, and secondary data analysis will be applied. These data are only used for educational purposes of this thesis.

Secondary data analysis involves analysis of existing data that is collected by other researchers to replicate or extend prior findings or to address new research questions. A clear advantage of re-use of data is that it can save time and costs; sometimes it can provide larger and high qualitative databases. Disadvantages are that the data can be outdated or inaccurate, not available in a usable format, or not cover all samples of the target population or not is sufficient detail, insufficient information available on the data collection process, how well it was carried out, or how the data was affected by problems such as low response rate, misunderstanding survey questions etc. (Greenhoot & Dowsett, 2012).

3.2 Data collection

The data is collected for a study of the KU Leuven, Belgium, on employability in Flemish (public) organizations. HR managers of organizations were informed about the study via their formal and informal network or via presentations by the study group. After agreement to participate in the study, employees and supervisors of (selected departments of) the organizations received an invitation to complete a survey (online or paper, dependent on access to a work-computer). After 2 weeks, a reminder email was sent to workers, who had not completed the survey. As an incentive for participation, gifts were raffled amongst the responders who completed the survey. The average response rate was considered high (ranging from 50-80%), therefore no further follow up was done. Feedback reports were sent to the organizations. The data were anonymously collected and reported
at group level, so the data could not be linked back to an individual. Supervisors did not know the results of their workers. Supervisors answered questions for their workers and these data are linked in the dataset to the applicable workers.

Population

The dataset includes 213 responders. More women (57.3%) than men (43.7%) participated in the study. About 45% of the responders were graduates. The mean age of the workers was 43.2 years (SD=10.5; ranging from 22 to 64 years). When dividing the age into age categories about respectively 26%, 25%, 32% and 17% of the workers fall within the age categories 20-34 year; 35-44 year; 45-54 year; and >55 years. The mean age of the supervisors is 43.6 years (SD=10.2; ranging from 25 to 64 years). About two third (of the respondents worked in middle or higher job level (e.g. middle or higher management or clerk). The majority of the responders works full time (76.7%) and has a permanent contract (93.3%).

The final dataset includes data of 213 Flemish speaking workers of 4 private organizations, data of their supervisor, collected at one time point (October 2013).

3.3 Operationalization and appropriateness of secondary data approach

In chapter 2 the theoretical concepts, that are the basis of this study, were outlined. In the conceptual model the relationship between the core concepts (age, learning and employability; and age stereotyping) are visualized and the hypotheses reflect the research questions of this study. As in this study secondary data analysis is applied, it is necessary to evaluate if the dataset is a good match to the research questions, and the constructs and populations measured, the used measurement instruments, their reliability and validity need to be assessed (Greenhoot & Dowsett, 2012).

Perceived employability

Perceived employability was rated by workers and supervisors, using the scale by De Cuyper & De Witte (2008). Internal employability (e.g. I have a high chance of finding another job in this organization) and external employability (e.g. I have a high chance of finding a job in another organization) were measured, with for each four items on a 5-point
scale (1 = strongly disagree, 5 = strongly agree). The Perceived Employability scale has been used in several studies (De Cuyper & De Witte, 2008; De Cuyper et al., 2010; De Witte, 1992), consistently showing a good reliability, and can be considered as an integrated, comprehensive measurement, as it includes the different components of employability. In the present study, the reliability (Cronbach’s alpha) was 0.90 and 0.95 for internal employability for worker and supervisor, respectively and 0.97 for external employability for both worker and supervisor indicating an acceptable internal consistency and reliability of the constructs.

The presence of two components (for both worker and supervisor data), was shown by principal component analysis. The interpretation of the two components was consistent with previous research on the PE scale, with PE external (PE-ext) items loading strongly on Component 1 and PE internal (PE-int) items loading strongly on Component 2. The result of this analysis support for quantitative perceived employability the use of PE-int and PE-ext items as separate scales, as suggested by the original authors of this Perceived Employability scale (De Cuyper & De Witte, 2008).

Formal learning

Formal learning was measured in two ways, firstly, learning opportunities as provided by the organization, and secondly, participation of workers in learning activities. Learning opportunities was measured as part of measuring Organizational Career Management help (OCM), using items developed by Sturges et al. (2002). Two of these items relate to formal learning opportunities (e.g., I was provided training to help develop my career). Workers responded on a 5-point scale, which ranged from ‘strongly disagree’ (1) to ‘strongly agree’ (5).

Secondly, formal learnings was measured by two items, developed for the KU Leuven study, related to the participation of the workers formal learning (technical or overall skill) activities (e.g. Did the worker take part in learning activities to improve her/his overall skills, e.g. communication, assertiveness), and assessed by the supervisors (1=yes; 0=no).

A higher score for learning opportunities as rated by the worker, indicates that more learning opportunities are provided to the worker. To align the rating (by the worker) of
learning opportunities with the rating (by the supervisor) of learning activities, the sum score of the two items of learning activities will be used to assess the applicable hypotheses of this study (e.g. the relation between formal learnings and perceived employability as rated by the supervisor).

As only two items were used to measure learning opportunities and learning activities reliability analysis using Cronbach’s alpha is not relevant. Therefore, the correlation of the two items on both constructs was assessed. Both correlations between the two items was >.70, indicating a good reliability. Furthermore, the mean of learning activities (as rated by supervisor) was > 1 and the standard deviation (SD) was 0.7, which is close to zero, both preferred in case of good reliability.

Age of workers and supervisors

As in most research, this study will approach the concept of age as chronological age. In the KU Leuven study, the year of birth of the workers was collected and will be used to calculate chronical age. For the supervisors, who participated as worker, also the date of birth was collected. To study the relation of workers age and employability, respondents will be divided in four age categories, namely 20-34 year; 35-44 year; 45-54 year; and 55 years or over.

Supervisor – worker age difference

The variable supervisor-worker age difference is included in the conceptual model to assess the application of workplace age stereotyping. A smaller age difference is expected to result in higher supervisor’s ratings of perceived employability and learning activities. To study this relation, the absolute age difference between the chronological age of the worker and supervisor, as described above will be used.

Socio-demographic and work related control variables

To address the research questions of this study, socio-demographic and work related variables will be used as control variables. The socio-demographic variables are gender (1=female; 2=male) and education (1=no education, 13=PhD). The work related control variables are, contract type (1=permanent contract; 2=temporary contract; 3=insourced), full
or part time (=2) working and job level (1=unskilled worker; 6=higher management). If for job level other = 7 was selected, a description of the job was collected. An estimation was made to recode these descriptions in rating 1-6 (e.g. nurse = 3).

3.4 Data-analysis

Based on literature research a conceptual model has been drawn up, that includes the variable perceived employability and as explanatory variables worker’s age, learning opportunities/activities and the age difference between supervisor and worker. The influence of these variables has been estimated by means of regression analysis.
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Workers' age</td>
<td>43.24</td>
<td>10.49</td>
<td>22</td>
<td>64</td>
<td>2.59</td>
<td>.87</td>
<td>1.00</td>
<td>5.00</td>
<td>-.096</td>
<td>(.90)</td>
<td>2.83</td>
<td>.93</td>
<td>1.00</td>
<td>5.00</td>
<td>-.445</td>
<td>“.”</td>
<td>.287</td>
</tr>
<tr>
<td>2</td>
<td>Worker PE-int</td>
<td>3.04</td>
<td>1.14</td>
<td>1.00</td>
<td>5.00</td>
<td>.265</td>
<td>“.”</td>
<td>.328</td>
<td>“.”</td>
<td>.119</td>
<td>(.97)</td>
<td>3.19</td>
<td>1.11</td>
<td>1.00</td>
<td>5.00</td>
<td>-.491</td>
<td>“.”</td>
<td>.145</td>
</tr>
<tr>
<td>3</td>
<td>Supervisor PE-int</td>
<td>3.37</td>
<td>.93</td>
<td>1.00</td>
<td>5.00</td>
<td>.054</td>
<td>“.”</td>
<td>.150</td>
<td>“.”</td>
<td>.078</td>
<td>.138</td>
<td>.024</td>
<td>(NA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Learning opportunities (worker)</td>
<td>1.09</td>
<td>.78</td>
<td>.00</td>
<td>2.00</td>
<td>-.022</td>
<td>“.”</td>
<td>.109</td>
<td>.123</td>
<td>.335</td>
<td>“.”</td>
<td>.309</td>
<td>“.”</td>
<td>.113</td>
<td>(NA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Supervisor PE-ext</td>
<td>43.60</td>
<td>10.25</td>
<td>25</td>
<td>64</td>
<td>-.077</td>
<td>.194</td>
<td>“.”</td>
<td>.016</td>
<td>.004</td>
<td>-.090</td>
<td>.019</td>
<td>.005</td>
<td>(NA)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>Learning activities (supervisor)</td>
<td>12.47</td>
<td>8.77</td>
<td>0</td>
<td>35</td>
<td>-.002</td>
<td>.150</td>
<td>“.”</td>
<td>.000</td>
<td>.001</td>
<td>-.138</td>
<td>.106</td>
<td>-.147</td>
<td>-.016</td>
<td>(NA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Supervisor's age</td>
<td>1.43</td>
<td>.50</td>
<td>1</td>
<td>2</td>
<td>.070</td>
<td>-.031</td>
<td>.142</td>
<td>-.282</td>
<td>“.”</td>
<td>-.150</td>
<td>-.126</td>
<td>.014</td>
<td>.033</td>
<td>.186</td>
<td>(NA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Age diff superv. worker</td>
<td>7.97</td>
<td>2.78</td>
<td>1</td>
<td>13</td>
<td>-.135</td>
<td>-.080</td>
<td>.011</td>
<td>-.133</td>
<td>.017</td>
<td>-.090</td>
<td>.016</td>
<td>-.136</td>
<td>-.047</td>
<td>-.150</td>
<td>(NA)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Gender</td>
<td>1.23</td>
<td>.42</td>
<td>1</td>
<td>2</td>
<td>.167</td>
<td>“.”</td>
<td>.039</td>
<td>.028</td>
<td>.053</td>
<td>-.063</td>
<td>-.088</td>
<td>.076</td>
<td>.030</td>
<td>-.311</td>
<td>“.”</td>
<td>-.031</td>
<td>(NA)</td>
</tr>
<tr>
<td>10</td>
<td>Education</td>
<td>1.07</td>
<td>.25</td>
<td>1</td>
<td>2</td>
<td>-.181</td>
<td>“.”</td>
<td>.049</td>
<td>.071</td>
<td>.017</td>
<td>.057</td>
<td>-.011</td>
<td>.033</td>
<td>-.046</td>
<td>.064</td>
<td>.039</td>
<td>.169</td>
<td>“.”</td>
</tr>
<tr>
<td>11</td>
<td>Full/part time</td>
<td>3.52</td>
<td>1.41</td>
<td>1</td>
<td>7</td>
<td>.013</td>
<td>-.128</td>
<td>-.003</td>
<td>.010</td>
<td>.151</td>
<td>.026</td>
<td>.196</td>
<td>“.”</td>
<td>-.160</td>
<td>-.130</td>
<td>-.219</td>
<td>.486</td>
<td>“.”</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). NA - not applicable. Alphas are in parenthesis. N = 213

Table 4.1 Worker's age, perceived employability, learning opportunities, learning activities and outcomes
4. Results

The means, standard deviations, Cronbach’s alpha reliability coefficients and correlations among study variables are presented in Table 4.1.

4.1 Correlations

A negative correlation was found between worker’s age and perceived external employability (-.445, p<.01), as rated by the worker and between worker’s age and perceived internal (.265, p<.01) and external employability (.491, p<.01) as rated by the supervisor.

Learning opportunities (reported by the worker) is positively correlated with perceived internal employability, as rated by the worker (.150, p <.05). Learning activities (as reported by the supervisor) is positively correlated with supervisor’s rating of perceived internal (.335, p <.01) and external (.309, p<.01) employability. No correlation was found between worker’s age and learning opportunities or learning activities.

As shown in Table 1, the independent variables supervisor’s age, supervisor-worker age difference, as well as, the demographic (gender, education) and work-related control variables (full/part time, contract type, job level) are not at all or to a very small extent (r<.3) correlated with the dependent variables of this study. Therefore, supervisor’s age, supervisor-worker age difference, and the control variables will not be taken into account for further analyses.

In table 4.2 the means and standard deviations of perceived employability per worker’s age category are presented. The perceived external employability ratings are higher than the perceived internal employability, except for the higher age categories, suggesting that for the younger workers the chance of finding another job outside of the organization is perceived higher by both the supervisor and the worker.
### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>PE-int worker</th>
<th></th>
<th>PE-ext worker</th>
<th></th>
<th>PE-int supervisor</th>
<th></th>
<th>PE-ext supervisor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>20-34 yrs.</td>
<td>2,672</td>
<td>0.881</td>
<td>2,327</td>
<td>0.848</td>
<td>3,375</td>
<td>1.161</td>
<td>3,770</td>
<td>1.050</td>
</tr>
<tr>
<td>35-44 yrs.</td>
<td>2,609</td>
<td>0.961</td>
<td>3,033</td>
<td>0.834</td>
<td>3,208</td>
<td>1.049</td>
<td>3,452</td>
<td>0.991</td>
</tr>
<tr>
<td>45-54 yrs.</td>
<td>2,550</td>
<td>0.844</td>
<td>2,731</td>
<td>0.960</td>
<td>3,042</td>
<td>1.189</td>
<td>3,036</td>
<td>1.076</td>
</tr>
<tr>
<td>&gt;55 yrs.</td>
<td>2,492</td>
<td>0.759</td>
<td>2,040</td>
<td>0.655</td>
<td>2,576</td>
<td>0.915</td>
<td>2,217</td>
<td>0.777</td>
</tr>
</tbody>
</table>

Table 4.2 Worker’s age category and perceived employability

#### 4.2 Statistical Analysis

##### 4.2.1 Regression analysis

Table 4.3 represents regression analyses related to the hypotheses. The R² value indicates which percentage of the variance of the dependent variable is predicted by the independent variable e.g., worker’s age predicts about 20% (R² = 0.198) of the variance of perceived external employability, as rated by the worker.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
<th>Unstand. beta coef.</th>
<th>SE</th>
<th>Stand. beta coef.</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worker’s age</td>
<td>Worker PE-ext</td>
<td>-.040</td>
<td>.006</td>
<td>-.445***</td>
<td>.198***</td>
</tr>
<tr>
<td>Worker’s age</td>
<td>SV PE-int</td>
<td>-.029</td>
<td>.009</td>
<td>-.265**</td>
<td>.070**</td>
</tr>
<tr>
<td>Worker’s age</td>
<td>SV PE-ext</td>
<td>-.052</td>
<td>.008</td>
<td>-.491***</td>
<td>.241***</td>
</tr>
<tr>
<td>Learning opp</td>
<td>Worker PE-int</td>
<td>.140</td>
<td>.069</td>
<td>.150**</td>
<td>.022*</td>
</tr>
<tr>
<td>Learning act</td>
<td>SV PE-int</td>
<td>.491</td>
<td>.107</td>
<td>.335***</td>
<td>.112***</td>
</tr>
<tr>
<td>Learning act</td>
<td>SV PE-ext</td>
<td>.438</td>
<td>.105</td>
<td>.309***</td>
<td>.095***</td>
</tr>
</tbody>
</table>

* p<.05, ** p<.005, *** p<.0005, SV= supervisor, PE-int and PE-ext = resp. perceived internal and external employability

Table 4.3. Worker’s age, learnings, perceived employability and regressions.

H1a stated that the worker’s age would be negatively related to employability as assessed by worker’s self-rating of perceived employability. This hypothesis was supported for external employability (β = -0.445, p<0.005). As no association was found between worker’s age and perceived internal employability, this hypothesis is partially supported.

H1b stated that the worker’s age would be negatively related to employability as assessed by supervisor’s rating of perceived employability. This hypothesis was supported for perceived internal (β = -0.265, p<0.005) as well as for perceived external (β = -0.491, p<0.0005) employability. Therefore, this hypothesis was supported.
H2a stated that formal learnings (rated as learning opportunities by the worker) will have a positive influence on perceived employability as assessed by worker’s self-rating. This hypothesis was supported for perceived internal employability ($\beta = .150, p<.005$). No association was found between formal learnings and perceived external employability, therefore, this hypothesis was partially supported.

H2b stated that formal learnings (rated as learning activities by the supervisor) will have a positive influence on perceived employability as assessed by supervisor’s rating. This hypothesis was supported for perceived internal ($\beta = .335, p<.0005$), as well as for external ($\beta = .309, p<.0005$) employability. Therefore this hypothesis was supported.

H3a stated that worker’s age is negatively related to formal learnings (learning opportunities as reported by the worker), such that older workers are offered less learning opportunities than younger workers. H3b stated that worker’s age is negatively related to formal learnings (learning activities as reported by the supervisor), such that older workers participate less frequent in learning activities than younger workers. No support was found for these hypotheses.

H5a&b stated that the supervisor’s ratings of perceived employability, respectively learning activities are higher, when the age difference between the supervisor and the worker is smaller. No support was found for these hypotheses, as there is no association between the supervisor and worker age difference and supervisor’s rating of perceived employability and learning activities.

4.2.2  Multiple regressions

Multiple regression analysis was performed for the relation between independent variables worker’s age and learning activities, and dependent variables perceived internal and external employability as rated by the supervisor ($r>.3$). Table 4.4 presents the outcomes of the multiple regression analysis. Combined predict worker’s age and learning activities 16% and 32% of the variance of respectively, perceived internal and external employability as rated by the supervisor.
H4a&b stated that the relations between worker’s age and employability, as rated by the worker and as rated by the supervisor, are mediated by formal learnings (respectively by learning opportunities as reported by the worker and learning activities reported by the supervisor). No support was found for these hypotheses, as no association between worker’s age and learning opportunities nor learning activities was shown.

In figure 4.1 the confirmed relations of the conceptual model, resulting from the regression analyses, are presented.

**p<.005, *** p<0005

Fig. 4.1 Regression analysis results
Study 2

This study aims to address the relation between the worker’s age, employability and the role of learning and workplace age stereotyping in this relation in a qualitative manner, to give direction to alternative theoretical explanations. The methods and results of this study are described in Chapter 5 and Chapter 6, respectively.

5. Methods

For this qualitative study, data is gathered via semi-structured interviews. Subjects were selected from the formal and informal network of the researcher. The subjects received an invitation letter describing the purpose of the research, details on the duration and method of the interview, confidentiality, as well as the interview questions for preparation purposes. Before the interview, each interviewee signed an informed consent to agree with the terms and conditions of the research.

5.1 Data collection

The semi-structured interviews took place face to face (n=4) or via Skype (n=1) at the working place (n=2) or home (n=3) of the interviewee. The interviews had durations between 30 and 60 minutes and were recorded and transcribed by the researcher.

The interview questions were based on the relations of the conceptual framework of this study. Employability is in this study defined as the chance to maintain the current job, find another job in the same organization, or in another organization. As examples of interview questions for the relation between age and employability e.g., “The employability of workers decreases with age. How do you think about it, and why?”), or for the relation between learning and employability (“Maintaining or expanding skills (e.g. by learning activities) increases the employability of employees. How do you think about it, and why?”). The interview questions are presented in appendix 3.

Of each of the interviewees the following data was collected: age, gender, highest level of education, job level, management responsibilities, working time with current employer, type of contract, and type of organization.
Population

5 subjects, 4 males and 1 female, with a mean age of 47.2 years (ranging from 32 to 55 years) participated in the study. 4 of them were graduates. All interviewees worked in middle or higher job level (e.g. middle or higher management or clerk), 2 of them have line management responsibilities. The majority of the subjects works full time and has a permanent contract.

5.2 Data analysis

In this study the transcripts of the interviews were explored by reading and rereading to identify and sort themes and categories. A computer software program (QDA miner lite version 2.0.2) was used to assist in the next steps of the process. Initial categories and codes were entered in the software program and used for coding of the uploaded transcripts. These first coding results were reviewed in relation to the transcripts, followed by refining, adjusting and extending the initial codes. Then, the transcripts were recoded and analyzed for prevalence of codes with the software program by the researcher two times with three weeks in between. Appendix 4 presents the coding results. The most prevalent codes can be found in table 5.1 below and will be discussed in chapter 6.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereotypes older workers</td>
<td>Low health status</td>
</tr>
<tr>
<td></td>
<td>Higher costs</td>
</tr>
<tr>
<td></td>
<td>Inflexible</td>
</tr>
<tr>
<td></td>
<td>Experienced</td>
</tr>
<tr>
<td></td>
<td>Short return of investment period</td>
</tr>
<tr>
<td>Stereotypes younger workers</td>
<td>Inexperienced</td>
</tr>
<tr>
<td></td>
<td>Long return of investment period</td>
</tr>
<tr>
<td>Factors influencing employability older workers</td>
<td>Sector related (i.e., tightness job market in construction sector; agreements redundancies in public sector: caring capabilities older workers in care sector)</td>
</tr>
<tr>
<td></td>
<td>Stereotypes hiring manager</td>
</tr>
<tr>
<td></td>
<td>Worker related (i.e., flexibility, learnings, quality)</td>
</tr>
<tr>
<td>Purpose training</td>
<td>Attracting/binding younger workers</td>
</tr>
<tr>
<td></td>
<td>Improvement</td>
</tr>
<tr>
<td></td>
<td>Stay up to date older workers</td>
</tr>
<tr>
<td>Learning types</td>
<td>Formal</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
</tr>
<tr>
<td></td>
<td>Costs / time boss</td>
</tr>
</tbody>
</table>

Table 5.1 Most prevalent codes
6. Results

In this chapter the coding results are presented as organized by the relations of the conceptual model, i.e., (1) age and employability; (2) learning and employability; (3) age, learning and employability, and (4) the influence of age stereotyping.

6.1 Age and employability

Based on the conceptual model, it is expected that employability decreases with age. Several of the interviewees indicate, however, that they do not experience an employability issue for older workers, as they have many older co-workers. For instance, interviewee 01, working in the construction sector, indicates that the inflow of young workers in this sector is low: “In the higher vocational education (HBO in Dutch) classes there are 5-6 students per year, and only a few classes in this region”. The economic crisis and several fraud scandals have contributed to a bad image of the sector, resulting in a tight labor market. Therefore, in the opinion of interviewee 01, the employability of older workers is not decreased in the construction sector.

Also in the care sector, older workers have no employability issues, according to interviewee 04. In the opinion of this interviewee, older workers are valued for their caring capabilities, which younger workers have less: “the older you are, normally, the better you can take care of others. A 20-year-old girl cannot care for an elderly person as well as a 55-year-old woman”.

Interviewee 05, working in the public sector, indicates that due to sector related labor agreements on taking over redundant workers, older workers will not be laid off and can continue working for a different public organization.

From these results, it seems that the internal employability of older workers is not so much of an issue, however, this may be sector related. In the construction, care and public sectors, where some of the interviewees work, this translates into more older workers in the workplace (UWVa;b;c;d).
6.2 Learning and employability

In the organizations of all interviewees, training opportunities are offered, mainly for improving skills and knowledge, attracting or binding of younger workers, and staying up to date for older workers. Interview 01 also mentions that costs play a role. “The profit margins in the construction sector are low, between 1-3%. So, not spending money on a course, means higher profit. [...] But it is important to provide training, to increase the level of the workers, but also to keep the young workers in the organization”.

The majority of interviewees indicate that training can be done (partially) within working hours and is paid by the organization. The need or interest of the individual worker is mostly leading, but if the training budget is tight, most interviewees indicate that the need of the organization is the deciding factor in offering training opportunities.

The above results suggest that age plays a role in the reasons to provide training, which may be an indication for age stereotyping. Also the financial situation of an organization (or sector) plays a role in providing training.

6.3 Age, learning, and employability

In the opinion of most of the interviewees, continuous development (i.e., lifelong learning) is very important for all workers, independent of age. “Not developing is similar to deterioration, which is bad for the performance of the worker. But also for the organization, as for instance in an innovative environment, it may have a negative impact on the competitive position of the organization”, according to interviewee 03.

In the opinion of the interviewees, age is not a limiting factor for the ability to develop, interviewee 04: “You can still develop very well as a 55- or 50-year old. The ability to develop is not age-bound”.

However, return of investment appears to play a role, when it comes to providing learning opportunities. Interviewee 05: “Investment in a training program must return in about 5 years. So, if I estimate that the worker is not gone within 5 years, in my opinion, the investment fine. In fact, I like it when older workers indicate they want training. This also has to do with flexibility, developing, that you want more than you do at this moment.”
Besides formal learning as an important method for learning, also several forms of informal learning were spontaneously mentioned by several of the interviewees, such as knowledge sharing of older workers with their younger colleagues (interviewee 02: “less experienced employees can learn from older employees, which ultimately should lead to better qualified employees within your company”). Also using new technology and processes, as well as participating in projects on new topics were brought up as important informal ways of learning, (interviewee 05: “I often find the importance of training, courses in organizations greatly exaggerated. [...] What I find important, and I want to emphasize, that you continue to develop and participate in new projects [...] so that you develop your skills there. Much more important.”).

The results in this section suggest that development via formal or informal learnings for any worker, independent of age, is considered an important contributing factor for the performance of the worker and consequently the competitive position of the organization. However, sufficient return of investment plays a role in providing learning opportunities.

6.4 Age, learning and employability, and the influence of age stereotyping

Interviewee 02 points at, that “there seems to be a discrepancy between law and practice, as the law indicates that everyone must work until above 67 year of age, however, employers apparently think differently, when hiring”. If older jobseekers are not invited for a job interview, they cannot show that they do have these capabilities. Interviewee 05 expressed a similar interesting thought: “Perhaps is work-related ageism something that maintains itself. If employers do no provide opportunities for older workers, or do not hire older workers, they do not gain experience. A positive experience, as we have in our organization, will also make it easier to recruit older jobseekers in the future.”

When it comes to reasons why older employees have difficulty finding another job, also the interviewees mention stereotypes for older workers: higher costs, worse health status, inflexible, short period for return of investment. In relation to working conditions the interviewees mention for instance, “older workers are hard to please, they want to have a similar, well-paid position back” (interviewee 04), or “in my experience, older unemployed are willing to accept a lower salary; they just want to work” (interviewee 02).
Besides these negative opinions also positive opinions are expressed by the interviewees. “Older workers contribute directly because of their knowledge and experience. It is not only a direct value, but it is also an indirect value for younger, less experienced employees who can learn from older employees”, according to interviewee 02.

When asking about workplace age discrimination, none of the interviewees was aware of anyone, who had been discriminated against at work because of age. Also, the presented examples for clarification of workplace age discrimination were not recognized. Interviewee 04 for instance indicated “I have never seen it [workplace age discrimination] around me, I have never experienced, honestly, that someone was discriminated against because of his age”. It could be that the presented examples were unclear, or that the interviewees provided social desirable responses, or have truly never been confronted with age discrimination, or recognizing of age discrimination is not so obvious.

The results above indicate that holding age stereotypes about older workers may be quite common, but that age discrimination in the workplace does not occur frequently, or that it is not so easy to recognize.
7. Conclusions, discussion, limitations and practical implications

This chapter will describe (1) conclusions and discussion, (2) the limitations and (3) the practical implication of this study.

7.1 Conclusions and discussion

In this thesis, the relation between the worker’s age and his/her employability and the role of learning activities and workplace age stereotyping in this relation was assessed in a quantitative manner in study 1. Based on literature review a conceptual model, including 5 hypotheses, was designed and tested. Study 2, addressed also the relation between age and employability in a qualitative manner, to give direction to alternative explanations. In study 1 a dataset of (n=213) of KU Leuven was used, and secondary data analysis applied. In study 2 data was gathered in semi-structured interviews (n=5) and qualitative analysis methods applied.

In this section, the conclusions of both studies discussed in an integrated manner, based on the theory and expectations and will be organized by the relations of the conceptual model.

Age and employability

In study 1 the perceived employability, defined as “the estimated probability of employment by the employee” was used, as a subjective approach to assess employability (De Cuyper & De Witte, 2008). This definition comprises the chance of maintaining the current job and finding another (better) job within the current organization or elsewhere. The perceived employability questionnaire, developed by De Cuyper & De Witte, which was used for this study, however focuses on finding another job, and does not include the aspect of retaining the current job. Therefore, the validity of the results of study 1 can be questioned and the findings may provide a misrepresentation. In study 2 maintaining of the current job, however, was taken into account. Despite the difference of the employability definitions used in both studies, maintaining a job will be included, when comparing the findings of both studies in this section.
Study 1 shows, in line with several other studies (e.g., Nauta et al., 2005; Van der Heijden, 2002; Van Vuuren et al., 2011), a negative relation between age and employability, but not for worker’s rating of internal employability. This may suggest that maintaining their current job or another job within the organization is not perceived as an issue by older workers. Staying in the current organization may even be preferred over switching to another organization, as the results also indicate that finding another job in the external labor market is perceived as an issue by older workers. Several explanations may be suggested.

First, the perceived employability approach, as used in this study, integrates personal and contextual factors and their interactions. Personal factors (e.g., age, health status, education level) and contextual factors (e.g., economic growth), that are integrated in the perceived employability concept may influence this sense of control (Berglund & Wallinder, 2015; Blatter et al., 2014; De Coen et al., 2015; Wittekind et al., 2010) and therefore the rating. The lower rating of older workers if compared to younger workers, may therefore be an indication of a lower overall sense of control over one’s career, at least in the external labor market and to a lesser extent in the internal labor market (Berglund & Wallinder, 2015; De Cuyper et al., 2012; Forrier & Sels 2003a; Ng et al., 2005; Vanhercke et al., 2014).

Second, the differences in employability ratings between older workers (higher internal employability ratings) and younger workers (higher external employability ratings), may suggest that older workers are more focused on maintaining the current job, rather than on finding a job elsewhere than their younger colleagues. This is in line with recent labor market research indicating, that between 2009-2014 only 1% of workers in the age group 55-65 yrs. switched organization, and 6,5% in the age group 25-35 yr. (CBS Statline, in UWV, 2017d, p.57). An explanation may be found in psychological theories on aging, such as socioemotional selectivity theory. With aging, goals and priorities become increasingly selective (Carstensen et al., 1999). Older people tend to focus on goals and activities, that are emotionally meaningful and that can be realized on short term. As older workers are more embedded in their jobs (Feldman, 2007) and usually more dedicated to their organization than younger workers (Cohen, 1991), staying within the current, known job and organization may be prioritized over the uncertainties and stress of changing to another organization. Also their job satisfaction may decrease the turnover intentions of older workers.
workers (Griffeth et al., 2000). Pragmatic reasons may also play a role, as there is too much to lose for older workers with switching to another organization, e.g. flexible instead of permanent contract; other benefits (e.g. salary, holidays etc.) related to the current job (UWV, 2017d).

Also, the findings of study 2 indicate that internal employability of older workers is not perceived as an issue. Internal employability (when focusing on maintaining the current job in the same organization) may be less age dependent in some sectors, for instance in case of a tight labor market, certain capabilities of older workers are valued, or specific labor agreements. This is in line with data from CBS (2016) and UWV (2017d) indicating that all sectors, except for the energy sector, have greyed between 2004 and 2014 (CBS, 2016).

Summarizing, this study showed an age related decrease of perceived employability, except for worker’s internal employability, suggesting that maintaining their current job is not perceived as an issue by older workers. This is in line with labor market research (UWV, 2017d), which indicates that older workers work for longer and tend to stay with their current employer. This may be related to personal factors (e.g., motivational, financial), sector specific factors (e.g., tight labor market, specific labor agreements, valued capabilities) or perceived difficulties finding another job in the external labor market.

**Learning and employability**

In line with the expectations showed study 1 a positive relation between formal learnings and employability, as perceived by the supervisor. Also the results of study 2 indicate that formal learning is considered to be an important contributing factor for the performance and the employability of the worker. However, for the workers in study 1 only a small relationship between formal learnings and perceived internal employability was found, and not for external employability, which is consistent with a study of Sanders and de Grip (2004). These results suggest that the workers think that the offered learning opportunities are of limited importance for maintaining their current or another job within their organization and not important for finding a job elsewhere.

It could be that most trainings provided to employees are too short, job- or company-specific and therefore only somewhat enhancing the internal employability. Employers may
be reluctant to provide trainings for the development of generic skills to employees that increase the external employability (Baruch, 2001; Carbery & Garavan, 2005; UWV, 2017d) as the benefits may not be redeemed by the organization that did the investment but by the future employer (UWV, 2017d).

For the high educated workers of this study, which is about half of the respondents, another explanation may be suggested. The continuous developments in technology and work processes require higher levels of labor, as well as of labor supply (UWV, 2017d). High educated workers are more subject to knowledge aging than low educated workers. Therefore is the need for participation in continuous education greater when the work is more knowledgeable, more complex and less routine (CBS/DUO/Ministerie OCW, 2017). The learning opportunities for the high educated workers in this study, may be perceived as of too limited use to keep up with the demands of their jobs.

The above results suggest that workers do not think that training is leading to increase of their employability. It may be that the provided training is too short, job- or company-specific, or insufficient for high educated workers to keep up with the demands of their jobs, or for alternative opportunities in the labor market.

**Age, learning and employability**

In study 1, contrary to the expectation, no support was found for a relation between worker’s age and formal learnings. Therefore, also the presumed mediation effect of formal learnings on the relations between worker’s age and employability is not supported. This result indicates, that the provided learning opportunities to workers and their participation in learning activities are not related to age. It may be that the method of assessing formal learning in this study, led to an underestimation of the findings, as only a limited number of items were used to measure formal learning (i.e., two items of OCM for worker’s rating of learning activities and two items, developed by the KU Leuven).

The results of study 2, are not completely in line with the findings of study 1. Development via formal or informal learnings for any worker, independent of age, was in study 2, considered an important contributing factor for the performance and the employability of the worker, and consequently, the competitive position of the organization.
Also the ability to develop was not perceived as age-bound. However, despite that learnings are perceived as beneficial for worker of any age, and that the capability to develop via learnings is not age dependent, study 2 results suggest also, that age does play a role when it comes to the purpose of providing training and the investment for training. In general, training opportunities are offered for improving skills and knowledge, but also age specific purposes for training were spontaneously mentioned, i.e., to attract or bind younger workers, and staying up to date for older workers. Return of investment appears to be important, mainly, if employees retire within the intended payback period of the training of about 5 years.

This may be another explanation of, that no support was found in study 1 for the relation between age and learnings. Only 1% of the workers of study 1 were above 60 years, therefore the majority of the workers has sufficient tenure for return of investment of training and makes investment in training worthwhile. Also the fact that only formal learnings were included in study 1, and that in study 2 also informal learnings were indicated as being important for employability may also have contributed to the mixed results.

Therefore, the results of this study related to age, learning and employability are mixed. Despite that the results of study 1 not support a relation between age and learning, in study 2 there are some indications that age does matter in this relation, in particular regarding the purpose of providing training and the investment for training for older workers. It may be that the type of learning (formal vs. informal learnings) also plays a role.

**Age, learning and employability; and the influence of age stereotyping**

In this study the influence of age stereotyping on the relations of the conceptual model were assessed in an indirect manner, firstly, based on the assumption that negative relations between age and employability and between age and learning for the supervisor ratings, as well as dissimilar results between worker and supervisor, may be an indication of age stereotyping. Secondly, the indirect assessment was based on the social identity and similarity attraction theory, assuming that when the supervisor perceives the worker as similar to one selves, there would be less or no age stereotyping.
Study 1 showed a negative relation between age and employability as assessed by the supervisor, however not for age and learning. Only dissimilar results were found for the relation between age and internal employability, i.e., negative for the supervisor, but not for the workers. Also no association was found between the supervisor and worker age difference and supervisor’s rating of perceived employability and learning activities. Based on the decreased age related employability results of the supervisors, it can be concluded that there are some signs of age stereotyping.

Other studies also have shown that managers hold age stereotypes, or even discriminate against older workers, for instance in the hiring process (Euwals et al., 2009; Panteia, 2015; Posthuma & Campion, 2009). For instance, older workers have a lower chance on invitation for job interviews, which contributes to a lower chance for older workers of finding another job, i.e., lower employability. The lower internal and external employability ratings of the supervisors for older workers in this study, could therefore be indicative of age stereotyping and when applied, leading to negative outcomes for current and future older workers.

Also in study 2 there are signs of age stereotyping. As described earlier, in study 2, age appears to play a role, when it comes to the purpose of providing training and the investment for training. The interviewees obviously hold age stereotypes, as they mention several, such as higher costs, worse health status, inflexible, short period for return of investment, as reasons why older employees have difficulty finding another job. However, the interviewees are not aware of any workplace age discrimination.

A further indirect assessment of age stereotyping in this study was based on the social identity and similarity attraction theory. This theory suggests that managers favor workers, who they perceive as being similar to them (e.g. age, gender, education). It was hypothesized that a smaller age difference between supervisor and worker would lead to higher employability and formal learning ratings of the supervisor, which was not shown in this study. It may be that the usage of just one variable, i.e., age, is insufficient to conceptualize the similarity between supervisor and worker and therefore underestimates the application of age stereotyping.
With the indirect assessment used in this study signs of age stereotyping were shown. These age stereotypes may lead, when applied, to negative outcomes for current and future older workers.

7.2 Practical implications

Perceived employability is a subjective concept, combining individual and structural factors and their interactions. This study has shown that older workers perceive, in particular their external employability, as low, indicating a perception of a low chance of finding another job outside the current organization, maybe caused by age discrimination in the external labor market. This may lead to an increased focus of older workers on maintaining the current job, or only on the internal labor market. In addition to an increasingly older workforce, and a continuous changing work environment, employers and older individual workers, should combine efforts to maintain and enhance employability, for instance by formal learnings. But also other interventions, such as informal learnings, should be considered.

As the results suggests that the offered trainings may not always fulfill the needs of the workers to improve their performance and employability, organizations could assess how to bridge that gap and provide adequate training possibilities.

In this study some indications of age discrimination inside the own organization were found, such as the lower employability ratings of supervisors of older workers. Ageism in the workplace was also found in other research, for instance by unfavoring older workers in the hiring process. For an organization it is very important to stay alert on age stereotyping within the own organization, as it could lead to negative outcomes for current and future workers, and interventions could be considered.

7.3 Limitations and future research

This study has several limitations. Applying secondary data analysis is a first limitation. Disadvantages of using secondary data is that the data can be outdated or inaccurate, not cover all samples of the target population, not in sufficient detail available to address the current research questions etc., (Greenhoot & Dowsett, 2012) which may have influenced the results of this study.
For instance in Study 1 for measuring the concept of formal learning, only two items of the Organizational Career Management (OCM) (Sturges et al., 2002) as rated by the workers, and two items, developed by KU Leuven, as rated by the supervisors could be used, which may not completely comprise the concept. Furthermore, the age of the supervisors was derived from the date of birth that was collected for all supervisors.

Furthermore, the perceived employability questionnaire that was used to assess employability does not include the aspect of job retention and therefore does not comprise the full definition of employability. It is recommended that in future research this aspect is taken into account when using the perceived employability questionnaire, as this contribute to the validity of the results.

Also, the dataset of KU Leuven did not contain data on informal learnings, therefore. only formal learnings were used in Study 1. In other studies, in addition to influence of formal learnings on employability, also a positive contribution of informal learnings (e.g. learning opportunities within the job (task enlargement, task enrichment), job rotation, career guidance, feedback) (Forrier & Sels, 2003a, Groot & Maassen van den Brink, 2000) on employability is shown (De Vos et al., 2011; Wittekind et al., 2010). Future research could include both formal and informal learnings when studying the influence on employability.

Secondly, chronological age was used to measure the concept of age, as is commonly used in research. However, when it refers to older workers, it may be worthwhile to consider other approaches, as functioning, abilities and needs can differ between individual employees of similar chronological age (Van Dam et al., 2016) and lead to different effects on work-related outcomes (Kooij et al., 2011). Including different concepts of age (e.g. chronological age, functional age, psychosocial age, organizational age, and lifespan age; Sterns & Doverspike, 1989) in future research may shed more light on the differences between older workers on formal learnings and employability.

Thirdly, the perceived employability approach integrates individual and structural factors of employability and their interactions (De Cuyper & De Witte, 2008), and provides therefore a general indication of the individual overall sense of control over one’s career. This approach does not provide details about the reason for, for instance, a low perception
of employability, and therefore lacks the possibility of identifying points for interventions, in contrast to the competence-based (Van der Heijde & Van der Heijden, 2006) or the dispositional approach (Fugate & Kinicki, 2008) to employability.

Finally, the present findings used a small number of respondents (n = 213) in 4 Flemish public organizations in Study 1, and 5 interviewees in Study 2, and therefore the observations cannot be generalized to the whole population. Therefore, future research should make use of more representative samples.
Literature


CBS/TNO (2014), Nationale Enquête Arbeidsomstandigheden.


UWV, 2017c. Factsheet Overheid.


## Appendix 1 - Questionnaire for the employee

### Loopbaanondersteuning vanuit uw organisatie

1. Krijgt u in uw organisatie volgende vormen van **steun** bij uw loopbaan? Gelieve aan te geven in welke mate u akkoord gaat met volgende uitspraken.

<table>
<thead>
<tr>
<th></th>
<th>Helemaal niet akkoord</th>
<th>Eerder niet akkoord</th>
<th>Noch akkoord, noch niet akkoord</th>
<th>Eerder akkoord</th>
<th>Helemaal akkoord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ik krijg een opleiding die me helpt bij de uitbouw van mijn loopbaan.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mijn baas zorgt ervoor dat ik de opleiding krijg die ik nodig heb voor mijn loopbaan.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Bron: OCM Sturges et al.

### Uw toekomstige loopbaan

2. Volgende stellingen gaan over uw ingeschatte kans op het vinden van een nieuwe job.

_De volgende stellingen gaan over de jobmogelijkheden binnen deze organisatie. Gelieve aan te duiden in welke mate u akkoord gaat met volgende stellingen._

<table>
<thead>
<tr>
<th></th>
<th>Helemaal niet akkoord</th>
<th>Niet akkoord</th>
<th>Deels akkoord, deels niet akkoord</th>
<th>Akkoord</th>
<th>Helemaal akkoord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ik heb een grote kans om hier een andere job te krijgen, als ik daarnaar zou zoeken.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ik kan hier gemakkelijk een andere job vinden, in plaats van mijn huidige functie.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ik kan hier gemakkelijk van job veranderen, als ik dat zou willen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ik ben ervan overtuigd dat ik snel een andere job kan vinden bij deze werkgever.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
De volgende stellingen gaan over de jobmogelijkheden buiten deze organisatie. Gelieve aan te duiden in welke mate u akkoord gaat met volgende stellingen.

<table>
<thead>
<tr>
<th></th>
<th>Helemaal niet akkoord</th>
<th>Niet akkoord</th>
<th>Deels akkoord, deels niet akkoord</th>
<th>Akkoord</th>
<th>Helemaal akkoord</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ik heb een grote kans om elders werk te vinden, als ik daarnaar zou zoeken.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Ik kan gemakkelijk elders een job vinden, in plaats van mijn huidige functie.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Ik kan gemakkelijk van werkgever veranderen, als ik dat zou willen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Ik ben ervan overtuigd dat ik snel een job kan vinden bij een andere werkgever.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### Appendix 2 - Questionnaire for the supervisor

**Hoe inzetbaar is uw medewerker?**

1. Volgende vragen gaan over uw inschatting van de kans die de medewerker heeft op het vinden van nieuwe tewerkstelling. *Gelieve aan te duiden in welke mate u akkoord gaat met volgende stellingen.*

<table>
<thead>
<tr>
<th></th>
<th>Helemaal niet akkoord</th>
<th>Eerder niet akkoord</th>
<th>Noch akkoord noch niet akkoord</th>
<th>Eerder wel akkoord</th>
<th>Helemaal akkoord</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mijn medewerker heeft een grote kans om hier een andere job te krijgen, als hij/zij daarnaar zou zoeken.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Mijn medewerker kan hier gemakkelijk een andere job vinden, in plaats van zijn/haar huidige job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Mijn medewerker kan hier gemakkelijk van job veranderen, als hij/zij dat zou willen.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Ik ben ervan overtuigd dat mijn medewerker snel een andere job kan vinden bij deze werkgever.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Mijn medewerker heeft een grote kans om elders werk te vinden, als hij/zij daarnaar zou zoeken.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Mijn medewerker kan gemakkelijk elders een job vinden, in plaats van zijn/haar huidige job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Mijn medewerker kan gemakkelijk van werkgever veranderen, als hij/zij dat zou willen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Ik ben ervan overtuigd dat mijn medewerker snel een job kan vinden bij een andere werkgever.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Heeft uw medewerker deelgenomen aan bepaalde HR activiteiten?

1. Volgende vragen gaan over de werknemers’ deelname aan bepaalde HR activiteiten. *Heeft de medewerker de afgelopen 6 maanden gebruik gemaakt van volgende HR activiteiten binnen uw organisatie? Gelieve uw antwoord aan te duiden.*

<table>
<thead>
<tr>
<th>Ja</th>
<th>Nee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Opleidingen om zijn/haar algemene vaardigheden te verbeteren (zoals Bv. assertiviteit, communicatievaardigheden)

2. Opleidingen om zijn/haar vaktechnische vaardigheden of vakkennis te verbeteren (specifieke vaardigheden/kennis die nodig zijn voor het uitoefenen van zijn/haar job)
Appendix 3 - Interview Questions

**Stelling 1:**

De arbeidsmarktpositie/de baankans van werknemers neemt af naarmate ze ouder worden. (Hiermee wordt bedoeld dat kans om een baan te behouden of een andere baan te vinden binnen de eigen organisatie afneemt als men ouder wordt. Het vinden van een baan buiten de eigen organisatie is nog moeilijker).

- Hoe denk jij hierover? Waarom?
- Wat zouden volgens jou de mogelijke gevolgen zijn van de afnemende arbeidsmarktpositie van oudere werknemers?

**Stelling 2:**

Het is belangrijk voor werknemers voor het goed kunnen uitvoeren van hun werkzaamheden om hun vaardigheden op peil te houden of uit te breiden (bijv. door het volgen van trainingen, cursussen, het bijhouden van vakliteratuur).

- Hoe denk jij hierover? Waarom?

**Stelling 3:**

Het bijhouden of vergroten van de vaardigheden versterkt de arbeidsmarktpositie/baankans van werknemers.

- Hoe denk jij hierover? Waarom?

**Stelling 4:**

Werknemers moeten allemaal gelijke kansen krijgen om hun vaardigheden op peil te houden of te vergoten.

- Hoe denk jij hierover? Waarom?
- Stel, je bent leidinggevende en je had een beperkt trainingsbudget. Aan wie zou je dat besteden? Waarom?

**Stelling 5:**

Zowel jongere als oudere werknemers ondervinden leeftijdsdiscriminatie op de werkvloer.

- Hoe denk jij hierover? Waarom?
- Wat zouden volgens jou de mogelijke oorzaken hiervan zijn?
- Wat zouden volgens jou de mogelijke gevolgen hiervan?
### Appendix 4 - Tree structure and prevalence results coding

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
<th>First coding</th>
<th>Second coding</th>
<th>Prevalence of codes**</th>
</tr>
</thead>
<tbody>
<tr>
<td>stereotypes older workers</td>
<td>low health status*</td>
<td>7</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>higher costs*</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>lower productivity</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>higher added value jobs</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>less willingness to learn</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>inflexible*</td>
<td>8</td>
<td>3</td>
<td>6</td>
</tr>
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*Most prevalent codes. ** For the prevalence of codes the following calculation is used Sum (1st coding Count > 3 + 1st coding Case > 2 + 2nd coding Count > 3 + 2nd coding Case > 2)

Table Appendix 4 - Study 2 prevalence results coding