

# INVESTIGATING THE IMPACT OF LEARNING MOTIVATION AND PERCEIVED SELF-EFFICACY ON LEARNING RESULTS OF YOUNGER VERSUS OLDER WORKERS

**Mojca KOGOVŠEK**  
**Metka KOGOVŠEK**

***Abstract:** Knowledge is increasingly important in the contemporary business environment that features constant technological and organizational changes. Consequently, there is a strong need to develop adequate HRM strategies to enable employees to remain able to work efficiently and effectively. Therefore, the purpose of this paper is to identify the ways to achieve highest learning results of younger versus older workers. To gain the required data, the survey questionnaire was sent to three organizations where 103 older employees and 156 younger employees answered the survey questionnaire. The results of multiple linear regression analysis reveal that not only learning motivation drivers and perceived self-efficacy impact learning results, but also organizational support is sometimes needed because the organizational support moderator effect on perceived self-efficacy to learning results was confirmed.*

***Key words:** younger workers, older workers, perceived self-efficacy, intrinsic learning motivation, extrinsic learning motivation, learning results*

## 1. INTRODUCTION

Knowledge and knowledge management are increasingly important in the contemporary business environment that features constant technological and organizational changes (Loretto and White 2006; Spitz-Oener 2006; Skirbekk 2008; Gill 2009; Picchio and van Ours 2013). Consequently, there is strong need to develop adequate HRM strategies to enable employees to remain able to work efficiently and effectively (Picchio and van Ours 2013; Froehlich, Beusaert, Segers, and Gerken 2014; Hashim, and Wok 2014; Karpinska, Henkens, Schippers, and Wang 2015). All the employees, regardless of their age, should participate in learning and development activities (Armstrong-Stassen and Templer, 2005, Paloniemi, 2006; Pillay, Kelly, and Tones, 2006; Billett, Dymock, Johnson, and Martin, 2011; Van Dalen, Henkens, and Wang, 2014). Consequently, there is a need for ascertaining the ways of supporting the learning of older and younger workers alike. Older workers might be needed in

times of workforce shrinkage due to current demographic trends. The shortages especially pertain specific occupational profiles (Muller-Camen, Croucher, Flynn, and Schröder, 2011).

Although there is a vast body of literature on identifying different strategies, especially established to suit the needs of older workers and that enable their retention (for example Žnidaršič, 2008; Žnidaršič and Dimovski 2009; Armstrong-Stassen, and Schlosser, 2011; Plaza, Martín, Martin, and Medrano, 2011) still research regarding adequate learning practices that would suit the needs of younger versus older workers is lacking (Picchio, and van Ours 2013; Belloni, and Villosion, 2014). To the best of our knowledge, no study exists that would offer specific guidelines regarding adequate HRM strategies identifying the importance of strengthening specific drivers that impact the learning of younger versus older workers. Chen and Klimoski (2007) stress that strong empirical support for drivers that contribute to workers' learning are crucial for ensuring the effectiveness of learning programs. Therefore, the purpose of the paper is to identify the pathways to achieving highest learning results of younger versus older workers.

The paper contains five sections. After the brief introduction with the sub-chapters that deal with theory development and hypotheses, the second section presents the methodology, the third, core section presents the results, while the two concluding sections end with discussion, conclusion, and recommendations.

### **1.1 Perceived self-efficacy**

Bandura (1986) conceptualizes self-efficacy as an ocean of abilities of an individual to conduct certain activities. Perceived self-efficacy is one of the key personal traits that correlate to perseverance and positive emotions during learning because the more one is certain in learning success, the more likely the person is successful while learning (Maurer, 2001). Therefore perceived self-efficacy (which means that an individual feels he/she can learn) also correlates to learning motivation (Grossman, and Salas, 2011) and as such it is one of the key factors of learning success (Phipps, Prieto, and Ndinguri 2013). Lack of confidence in learning abilities might be a great obstacle when learning. HRM departments can work on strengthening perceived self-efficacy of the employees through given support for learning and recognition for previous learning achievements. Also, when an employee learns within a positive working climate, her/his learning motivation strengthens (Salas, Tannenbaum, Kraiger, and Smith-Jentsch, 2012) and enhances the degree of newly acquired knowledge transfer to the workplace (Grossman and Salas, 2011). However, researchers (like Marquié, Jourdan-Boddaert, and Huet 2002) report that sometimes older individuals underestimate their skills when it comes to certain knowledge domain like when talking about computer skills (low perceived self-efficacy in IKT field) because their beliefs are influenced by sociologically

accepted prejudices. However, when an individual does not develop sufficient level of perceived self-efficacy, he/she will not put enough effort to achieve the learning results or he/she will even not decide to start learning. Therefore, management needs to focus on strengthening perceived self-efficacy of the employees. The first hypothesis is therefore H<sub>1</sub>: Perceived self-efficacy is a positive predictor of learning results of both groups of workers.

### **1.2 Moderator of organizational support through perceived self-efficacy**

Based on social support theories, specific organizational contexts (like perceived organizational support) impact the achievement of certain organizational goals. Organizational support for learning from superiors is of great significance when an employee decides to learn (James, McKechnie, Swanberg, and Besen, 2013; Martin, Dymock, Billett, and Johnson, 2014; Stone and Tetrick, 2013; Beck, 2014; Jeske and Stamov Roßnagel, 2015; Ravichandran, Cichy, Powers, and Kirby, 2015) and also support from peers is recommended (Colquitt, LePine, and Noe, 2000; Gegenfurtner, and Vauras 2012) to achieve higher learning results. HRM departments might enhance learning results through strengthening perceived self-efficacy by assuring the support for learning to the trainee from superiors and colleagues at work. Chiaburu, Van Dam and Hutchins (2010) proved the importance of support in strengthening knowledge transfer to the workplace and they also establish the correlation with the workers' self-esteem and self-efficacy. Ng and Sorensen (2008) further conclude that organizational support impacts employee satisfaction that in turn results in higher organizational commitment. Additionally, Chiaburu, Van Dam and Hutchins (2010) ascertain the evidence of organizational support being the antecedent to a positive attitude and consequently the predictor of learning result like knowledge transfer to the workplace. Extrapolating the above relationships, the present study identifies the organizational support moderator effect on perceived self-efficacy to learning results. Additionally, there might be much more important organizational support for an older group of workers because they are most frequently discriminated regarding learning. Employers mostly offer opportunities for learning and training to younger workers but not to the older workers because they presume that older workers do not want to learn and are unable to learn (Cataldi, Kampelmann, and Rycx, 2012) and because the investments in training older workers might have lower returns (Karpinska, Henkens, Schippers, and Wang, 2015). Due to the consequences of the deeply rooted stereotypes, older workers might need stronger support for learning that might strengthen their perceived self-efficacy. The second hypothesis is thus H<sub>2</sub>: Organizational support moderator effect on perceived self-efficacy is a positive predictor of learning results of both groups of workers while it is a stronger predictor for a group of older workers.

### 1.3 Intrinsic learning motivation

Intrinsic learning motivation is a self-determined motivation that brings about enjoyment in the process learning (Noels, Clément, and Pelletier, 2001). Adult individuals mostly like learning, so they mostly express relatively high emotions of intrinsic learning motivation (Cole, 2012). Therefore, HRM departments might strengthen the emotions of intrinsic learning motivation simply by offering opportunities to take part in learning and development activities (Major, Turner, and Fletcher, 2006; Žnidaršič, 2010). Bal and Dorenbosch (2015) ascertain that while aging intrinsic motivation increases. However, researchers (Thieme, Bruschi, and Büsch, 2015) claim that intrinsic learning motivation is positively correlated with learning results. Therefore, the third hypothesis is H<sub>3</sub>: Intrinsic learning motivation is a positive predictor of learning results of both groups of workers while there is a stronger predictor for an older group of workers.

### 1.4 Extrinsic learning motivation

Osterloh and Frey (2000) conceptualize extrinsic learning motivators as the response to external gains received from a different source than learning, namely through opportunity for career development from training in the coming years (Maurer and Lippstreu 2008; Bertolino, Truxillo, and Fraccaroli, 2011), and from gaining recognition (Griffin, 2011) or salary raise. Some researchers (like Buble, 2000) stress that extrinsic motivation prevents dissatisfaction but do not bring about any satisfaction to the individual, therefore, he/she might not be highly committed and consequently by the opinion of McGraw (1978) extrinsic motivation might bring about lower learning results. Bal and Dorenbosch (2015) report that while aging intrinsic motivation increases while the importance of extrinsic motivation drivers decreases. Therefore, the fourth hypothesis is H<sub>4</sub>: Extrinsic learning motivation is a positive predictor of learning results of both groups of workers while there is a stronger predictor of a younger group of workers.

According to the theory of planned behavior, individuals' behavior can be explained and predicted. Motivation drivers influence individuals' behavior (Ajzen, 1991) and specific motivation drivers can be strengthened through specific HRM strategies.

## 2. METHODOLOGY

The empirical analysis was conducted using SPSS package 14.0 for identifying the impact of learning motivation, perceived self-efficacy and the moderating effect of organizational support for learning that impacts perceived self-efficacy on learning results of younger versus older workers. The gain the required data, 103 older employees and 156 younger employees from three

different organizations answered the survey questionnaire only when they completed the education programs. The survey took place in 2015. To gain in reliability, the researchers assured the anonymity to the respondents.

Before the analysis was conducted, the Cronbach's alphas were computed to assess the internal consistency of each composite scale, containing several variables that were consequently used in multiple linear regression analysis. The multiple linear regression analysis were run to predict learning results regarding organizational commitment and professional development of younger and older group of workers from perceived self-efficacy, intrinsic learning motivation, extrinsic learning motivation, and the moderating effect of organizational support through perceived self-efficacy.

### 3. RESULTS

In this section, the results are described of how learning results regarding organizational commitment and professional development are predicted by the important predictors, namely, perceived self-efficacy intrinsic learning motivation, extrinsic learning motivation, and organizational support moderator impacting perceived self-efficacy of an individual.

The Cronbach's alphas were computed to assess internal consistency of the composite scales which needs to be higher than 0.70 (Kline, 2005). The intrinsic learning motivation scale was measured with three-item scale (using the sample item like "I attended the education program because of my desire for knowledge",  $\alpha = 0.807$  for the group of younger workers and  $\alpha = 0.705$  for the group of older workers), also the extrinsic learning motivation scale was measured with three-item scale (using the sample item like "I attended the education program to get the opportunity for salary raise",  $\alpha = 0.821$  for the group of younger workers and  $\alpha = 0.868$  for the group of older workers), while the organizational support scale was measured with four-item scale (using the sample item like "My supervisor encourages me to learn",  $\alpha = 0.848$  for the group of younger workers and  $\alpha = 0.777$  for the group of older workers). Based on the hypotheses, the multiple linear regression results are shown in the two tables below.

When examining the first set of learning results regarding organizational commitment, the multiple linear regression showed that the *younger workers'* variables statistically significantly predict learning results,  $F(4, 128) = 8.744$ ,  $p < 0.0005$ , adjusted  $R^2 = 0.19$ . The same was for the *older workers* variables statistically significantly predict learning results,  $F(4, 77) = 12.978$ ,  $p < 0.0005$ , adjusted  $R^2 = 0.372$ . Intrinsic learning motivation and moderator effect of organizational support through perceived self-efficacy added statistically significantly to the prediction of organizational commitment of *both age groups of workers*,  $p < 0.05$ .

Table 1: Summary of multiple regression analysis of learning result regarding organizational commitment for the group of younger versus older workers

	Younger workers			Older workers		
	B	SE <sub>β</sub>	β	B	SE <sub>β</sub>	β
Intercept	-0.384	0.331		-0.350	0.313	
Self-efficacy	0.052	0.060	0.072	0.084	0.059	0.130
Intrinsic motivation	0.383	0.084	<b>0.384***</b>	0.514	0.089	<b>0.537***</b>
Extrinsic motivation	-0.066	0.083	-0.067	0.014	0.078	0.016
Support * self-efficacy	0.037	0.016	<b>0.192*</b>	0.053	0.017	<b>0.285**</b>
R <sup>2</sup>	0.215			0.403		
Adjusted R <sup>2</sup>	0.190			0.372		
F	8.744			12.978		

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.005$ ; B = unstandardized regression coefficient; SE<sub>β</sub> = standard error of the coefficient; β = standardized coefficient

The regression model of learning result regarding organizational commitment confirms that intrinsic motivation and organizational support moderator impacting perceived self-efficacy have a statistically significant positive relationship with the learning result for both age groups of workers. Intrinsic motivation of younger workers was weaker predictor ( $\beta = 0.384$ ,  $p < 0.0005$ ) as the older workers intrinsic motivation ( $\beta = 0.537$ ,  $p < 0.0005$ ). Also, the organizational support moderator was a stronger predictor of older workers ( $\beta = 0.285$ ,  $p < 0.01$ ), compared to younger workers ( $\beta = 0.192$ ,  $p < 0.05$ ). However, neither the extrinsic motivation nor perceived self-efficacy impact learning results (it holds for both age groups of workers).

When examining the second set of learning results in terms of professional development, the multiple regression showed that that the *younger workers' variables* statistically significantly predict learning results,  $F(4, 128) = 24.940$ ,  $p < 0.0005$ , adjusted  $R^2 = 0.42$ , while the self-efficacy, intrinsic learning motivation, and extrinsic learning motivation statistically significantly added to the prediction of dependent variable,  $p < 0.05$ . The same was for the older workers' variables that statistically significantly predict learning results,  $F(4, 77) = 4.858$ ,  $p < 0.005$ , adjusted  $R^2 = 0.16$ , while perceived self-efficacy and extrinsic learning motivation added statistically significantly to the prediction,  $p < 0.05$ .

Table 2: Summary of multiple regression analysis of learning result regarding professional development for the group of younger versus older workers

	Younger workers			Older workers		
	B	SE <sub>β</sub>	β	B	SE <sub>β</sub>	β
Intercept	-0.560	0.274		-0.825	0.382	
Self-efficacy	0.101	0.050	<b>0.142*</b>	0.147	0.072	<b>0.215*</b>
Intrinsic motivation	0.371	0.070	<b>0.381***</b>	0.198	0.108	0.196
Extrinsic motivation	0.376	0.068	<b>0.389***</b>	0.294	0.096	<b>0.317**</b>
Support * self-efficacy	0.017	0.013	0.090	0.011	0.020	0.057
R <sup>2</sup>	0.438			0.202		
Adjusted R <sup>2</sup>	0.420			0.160		
F	24.940			4.858		

Note: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.005$ ; B = unstandardized regression coefficient; SE<sub>β</sub> = standard error of the coefficient; β = standardized coefficient

The regression model of learning results regarding professional development when it comes to *younger workers* confirms that perceived self-efficacy, intrinsic learning motivation, and extrinsic learning motivation have a statistically significant positive relationship with the learning results. Perceived self-efficacy has relatively weak predictive power ( $\beta = 0.142$ ,  $p < 0.05$ ), while intrinsic learning motivation ( $\beta = 0.381$ ,  $p < 0.000$  and extrinsic learning motivation ( $\beta = 0.389$ ,  $p < 0.0005$ ) are relatively strong predictors. There was no statistically significant prediction of the organizational support moderator through impacting perceived self-efficacy of an individual. To some extent different, the regression model of learning results of *older workers* confirms that perceived self-efficacy ( $\beta = 0.215$ ,  $p < 0.05$ ). Extrinsic learning motivation ( $\beta = 0.317$ ,  $p < 0.01$ ) have a statistically significant positive predictive power of learning results. However, there was, on the contrary to the model of younger workers, no statistically significant relations of intrinsic learning motivation and like for the younger workers there was also no statistically significant relationship of the organizational support moderator and learning results of older workers.

#### 4. DISCUSSION AND CONCLUSION

The contemporary working environment calls for continuous learning and training of all the employees regardless of age (Beaver and Hutchings,

2005; Skirbekk 2008; Karpinska, Henkens, Schippers, and Wang 2015). But still employers mostly discriminate older workers when it comes to learning and training. To overcome prejudices, many authors (De Guzman, Amrad, Araullo, and Cheung, 2014; Karpinska, Henkens, Schippers, and Wang, 2015) stress the significance of establishing the adequate HRM strategies. Most frequently managers assume that the same HRM strategies can be effectively utilized when managing older and younger workers alike. However, Armstrong-Strassen and Lee (2009) ascertained that HRM departments need to focus on identifying the unique HRM strategies that suit the different preferences, needs, and attitudes of older versus younger workers.

In this regard, some results go to the same direction as the conclusion of previous studies. Setti, Dordoni, Piccoli, Bellotto, and Argentero (2015) reported that intrinsic motivation strengthens while aging while Bal and Dorenbosch (2015) add that the importance of intrinsic motivation increases while the importance of extrinsic motivation drivers decreases with age. On the contrary, some researchers (like Bertolino, Truxillo, and Fraccaroli, 2011) share the firm beliefs of most of the employers that older workers are not keen on learning. On the contrary, there are opposing conclusions of Gegenfurtner and Vauras (2012) who claim that learning motivation even increases in the aging processes. However, previous researchers did not go deeper into the identifying the unique ways of strengthening specific drivers of older versus younger workers to achieve highest learning results.

Foss (2007) indicated that by establishing adequate HRM strategies, specific drivers can enhance learning results. HRM departments might enhance learning results through strengthening perceived self-efficacy by assuring the support for learning to the trainee from superiors and colleagues at work since Chiaburu, Van Dam, and Hutchins (2010) proved the importance of support in strengthening knowledge transfer to the workplace. Similarly many authors also stressed the importance of intrinsic (like Thieme, Bruschi, and Büsch, 2015) as well as extrinsic learning motivation, since it prevents the state of dissatisfaction (Bertolino, Truxillo, and Fraccaroli, 2011).

The current study identifies adequate approaches to establishing HRM strategies according to the needs of older versus younger workers, especially strengthening self-efficacy (when it comes to professional development programs). Thus, the first hypothesis was confirmed by the models of both groups of workers regarding professional development programs. It is also recommended to strengthen intrinsic learning motivation (when it comes to learning programs that enhance organizational commitment and also professional development programs for younger workers). Thus, the third hypothesis was partially confirmed. Also, the extrinsic learning motivation drivers (when it comes to professional development programs) need to be strengthened. Thus, the fourth hypothesis was confirmed for the professional

development programs. There was also confirmed the need to strengthen perceived self-efficacy through organizational support for learning for both age groups of workers (when it comes to learning programs that enhance organizational commitment). Thus, the second hypothesis was confirmed regarding the learning programs that enhance organizational commitment. Thus, the results of the current study offer a starting point for explaining the dispositional influences on workers' motivation for learning that have the great influence on learning results. The paper thus recommends human resource managers to overcome the roughly rooted age stereotypes and draw attention to dealing with different age groups of workers uniquely according to their needs and preferences.

## 5. RECOMMENDATIONS

The results reveal that not only learning motivation and perceived self-efficacy impact learning results, but organizational support are sometimes needed because it strengthens perceived self-efficacy. Therefore adequate initiatives are recommended to help increase self-efficacy of workers. The current study thus contributes to the theory of training and development and also offers a practical recommendation regarding suggesting adequate strategies that might enhance learning results. The results might be of great significance also in times when retention of older workers is of great importance due to shrinkage of the workforce.

## References

- Ajzen, Icek. "The theory of planned behavior." *Organizational behavior and human decision processes* 50, 2 (1991): 179-211.
- Armstrong-Stassen, Marjorie, and Lee, Seung Hwan Mark. "The effect of relational age on older Canadian employees' perceptions of human resource practices and sense of worth to their organization." *The International Journal of Human Resource Management* 20, 8 (2009): 1753-69.
- Armstrong-Stassen, Marjorie, and Schlosser, Francine. "Perceived organizational membership and the retention of older workers." *Journal of Organizational Behavior* 32, 2 (2011): 319-44.
- Armstrong-Stassen, Marjorie, and Templer, Andrew. "Adapting training for older employees: The Canadian response to an aging workforce." *Journal of Management Development* 24, 1 (2005), 57-67.
- Bal, P. Matthijs, and Dorenbosch, Luc. "Age-related differences in the relations between individualized HRM and organisational performance: a large-scale employer survey." *Human Resource Management Journal* 25, 1 (2015): 41-61.
- Bandura, Albert. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, 1986.

- Beaver, Graham, and Hutchings, Kate. "Training and developing an age diverse workforce in SMEs: The need for a strategic approach." *Education + Training* 47, 8/9 (2005): 592-604.
- Beck, Vanessa. "Employers' views of learning and training for an ageing workforce." *Management Learning* 45, 2 (2014): 200-15.
- Belloni, Michele, and Villosion, Claudia. "Training and wages of older workers in Europe." *European Journal of Ageing* (2014): doi: 10.1007/s10433-014-0327-7.
- Bertolino, Marilena, Truxillo, Donald M., and Fraccaroli, Franco. "Age as moderator of the relationship of proactive personality with training motivation, perceived career development from training, and training behavioral intentions." *Journal of Organizational Behavior* 32, 2 (2011): 248-63.
- Billett, Stephen, Dymock, Darryl, Johnson, Greer, and Martin, Greg. "Overcoming the paradox of employers' views about older workers." *The International Journal of Human Resource Management* 22 6 (2011): 1248-61.
- Buble, Marin. *Management*. University in Split: Faculty of Economics, 2000.
- Cataldi, Alessandra, Kampelmann, Stephan, and Rycx, François. "Does it pay to be productive? The case of age groups." *International Journal of Manpower* 33, 3 (2012): 264-83.
- Chen, Gilad, and Klimoski, Richard J. "Training and development of human resources at work: Is the state of our science strong?" *Human Resource Management Review* 17, 2 (2007): 180-90.
- Chiaburu, Dan S., Van Dam, Karen, and Hutchins, Holly M. "Social Support in the Workplace and Training Transfer: A longitudinal analysis." *International Journal of Selection and Assessment* 18, 2 (2010): 187-197.
- Cole, Karen Sanderson. "Promoting Cooperative Learning In An Expository Writing Course." *Journal of International Education Research* 8, 2 (2012): 113-24.
- Colquitt, Jason A., LePine, Jeffrey A., and Noe, Raymond A. "Toward an Integrative Theory of Training Motivation: A Meta-Analytic Path Analysis of 20 Years of Research." *Journal of Applied Psychology* 85, 5 (2000): 678-707.
- De Guzman, Allan B., Amrad, Hazel N., Araullo, Roren Charisse G., and Cheung, Hershey Beatricia O. "A Structural Equation Modeling of the Factors Affecting and Age-friendly Workplace." *Educational Gerontology* 40, 6 (2014): 387-400.
- Foss, Nicolai J. "The emerging knowledge governance approach: Challenges and characteristics." *Organization* 14, 1 (2007): 29-52.
- Froehlich Emanuel Dominik, Beusaert, Simon, Segers, Milen, and Gerken, Maïke. "Learning to stay employable." *Career Development International* 19, 5 (2014): 508-25.
- Gegenfurtner, Andreas, and Vauras, Marja. "Age-related differences in the relation between motivation to learn and transfer of training in adult continuing education." *Contemporary Educational Psychology* 37, 1 (2012): 33-46.
- Gill Avnider. "Knowledge management initiatives at a small university." *International Journal of Educational Management* 23, 7 (2009): 604-16.
- Griffin, Richard Paul. "Workplace learning evaluation: a conceptual model and framework." *Industrial and Commercial Training* 43, 3 (2011): 172-78.
- Grossman Rebecca, and Salas, Eduardo. "The transfer of training: What really matters." *International Journal of Training and Development* 15, 2 (2011): 103-20.

- Hashim Junaidah, and Wok Saodah. "Competence, performance and trainability of older workers of higher educational institutions in Malaysia." *Employee Relations* 36, 1 (2014): 82-106.
- James, Jacquelyn Boone, McKechine, Sharon, Swanberg, Jennifer, and Besen, Elyssa. "Exploring the workplace impact of intentional/unintentional age discrimination." *Journal of Managerial Psychology* 28, 7/8 (2013): 907-27.
- Jeske, Debora, and Stamov Roßnagel, Christian. "Learning capability and performance in later working life: towards a contextual view." *Education + Training* 57, 4 (2015): 378-91.
- Karpinska Kasia, Henkens, Kéne, Schippers, Joop, and Wang, Mo. "Training opportunities for older in the Netherlands: A Vignette Study." *Research in Social Stratification and Mobility* 41 (2015): 105-14.
- Kline, Rex B. *Principles and practice of structural equation modelling* (2<sup>nd</sup> ed.). New York: Guildford, 2005.
- Loretto Wendy, and White, Phil. "Population ageing and older workers: employers' perceptions, attitudes and policies." *Population, Space and Place* 12, 5 (2006): 341-52.
- Major, Debra A., Turner, Jonathan E., Fletcher, and Thomas D. "Linking Proactive Personality and the Big Five to Motivation to Learn and Development Activity." *Journal of Applied Psychology* 91, 4 (2006): 927-35.
- Martin, Gregory, Dymock, Darryl, Billett, Stephen, and Johnson, Greer. "In the name of meritocracy: managers' perceptions of policies and practices for training older workers." *Ageing and Society* 34, 6 (2014): 992-1018.
- Marquié Jean-Claude, Jourdan-Boddaert, Linda, and Huet, Nathalie. "Do older adults underestimate their actual computer knowledge?" *Behaviour & Information Technology* 21, 4 (2002): 273-80.
- Maurer, Todd J. "Career-relevant learning and development, worker age, and beliefs about self-efficacy for development." *Journal of Management* 27, 2 (2001): 123-40.
- Maurer, Todd J., and Lippstreu, Michael. "Who will be committed to an organization that provides support for employee development?" *Journal of Management Development* 27, 3 (2008): 328-47.
- McGraw Kenneth O. *The detrimental effects of reward on performance: A literature review and a prediction model*. In: M. Lepper and D. Greene (Eds.). *The hidden costs of reward: New perspectives on the psychology of human motivation*. Hillsdale, N.J: Erlbaum, (1978): 33-60.
- Muller-Camen, Michael, Croucher, Richard, Flynn, Matt, and Schröder, Heike. "National institutions and employers' age management practices in Britain and Germany: 'Path dependence' and option exploration." *Human Relations* 64, 4 (2011): 507-30.
- Ng, Thomas W.H., and Sorensen, Kelly L. "Toward a further understanding of the relationships between perceptions of support and work attitudes: A meta-analysis." *Group & Organization Management* 33 (2008): 243-68.
- Noels, Kimberly A., Clément, Richard, and Pelletier, Luc G. "Intrinsic, Extrinsic, and Integrative Orientations of French Canadian Learners of English." *The Canadian Modern Language Review/La Revue canadienne des langues vivantes* 57, 3 (2001): 424-42.

- Osterloh, Margit, and Frey Bruno S. "Motivation, knowledge transfer, and organizational forms." *Organization Science* 11, 5 (2000): 538-50.
- Paloniemi, Susanna. "Experience, competence and workplace learning." *Journal of Workplace Learning* 18, 7/8 (2006): 439-50.
- Phipps, Simone T.A., Prieto, Leon C., and Ndinguri, Erastus N. "Teaching an old dog new tricks: Investigating how age, ability, and self-efficacy influence intentions to learn and learning among participants in adult education." *Academy of Educational Leadership Journal* 17, 1 (2013): 13-25.
- Picchio, Matteo, and van Ours, Jan C. "Retaining through training even for older workers." *Economics of Education Review* 32 (2013): 29-48.
- Pillay, Hitendra, Kelly, Kathy, and Tones, Megan. "Career aspirations of older workers: An Australian study." *International Journal of Training and Development* 10, 4 (2006): 298-305.
- Plaza, Immaculada, Martín, Lourdes, Martín, Sergio, and Medrano, Carlos. "Mobile applications in an ageing society: Status and trends." *The Journal of Systems and Software* 84, 11 (2011): 1977-88.
- Ravichandran, Swathi, Cichy, Kelly E., Powers, Monica, and Kirby, Kara. "Exploring the training needs of older workers in the foodservice industry." *International Journal of Hospitality Management* 44 (2015): 157-64.
- Salas, Eduardo, Tannenbaum, Scott I., Kraiger, Kurt, and Smith-Jentsch, Kimberly A. "The Science of Training and Development in Organizations: What Matters in Practice." *Psychological Science in the Public Interest* 13, 2 (2012): 74-101.
- Setti, Ilaria, Dordoni, Paola, Piccoli, Beatrice, Bellotto, Massimo, and Argentero, Piergiorgio. "Proactive personality and training motivation among older workers: A mediational model of goal orientation." *European Journal of Training and Development* 39, 8 (2015): 681-99.
- Skirbekk Vegard. "Age and Productivity Capacity: Descriptions, Causes and Policy Options." *Ageing Horizons* 8, 4 (2008): 4-12.
- Spitz-Oener Alexandra. "Technical Change, Job Tasks, and Rising Educational Demands: Looking outside the Wage structure." *Journal of Labor Economics* 24, 2 (2006): 235-70.
- Stone, Dianna L., and Tetrick, Lois E. "Understanding and facilitating age diversity in organizations." *Journal of Managerial Psychology* 28, 7/8 (2013): 725-28.
- Thieme, Paula, Bruschi, Michael, and Büsch, Victoria. "The role of continuing training motivation for work ability and the desire to work past retirement age." *European Journal for Research on the Education and Learning of Adults* 6, 1 (2015): 25-38.
- Van Dalen, Hendrik P., Henkens, Kène, and Wang, Mo. "Recharging or retiring the older workers? Uncovering the age-based strategies of European employers." *The Gerontologist* (2014): doi: 10.1093/geront/gnu048.
- Žnidaršič, Jana. *Management starosti: Organizacijski model aktivnega staranja* (doctoral dissertation). University of Ljubljana: Faculty of Economics, 2008.
- Žnidaršič, Jana. "Age management in Slovenian enterprises: the viewpoint of older employees." *Zbornik radova Ekonomskog fakulteta u Rijeci* 28, 2 (2010): 271-301.

Žnidaršič Jana, and Dimovski, Vlado. "Retaining Older Workers: Fields Of Action – Constituting A Comprehensive Age Management Model." *The Journal of Applied Business Research* 25, 4 (2009): 85-98.

#### NOTES ABOUT THE AUTHORS

**METKA KOGOVSEK** is a lecturer at Grm Novo mesto –Centre of Biotechnics and Tourism, Vocational College. She is a PhD student in management and organization at the University of Ljubljana, Faculty of Economics. Her main research interests include leadership and service quality, her secondary research interests are emotional processes, and gender issues.

E-mail: metka.kogovsek@guest.arnes.si

**MOJCA KOGOVSEK** is a lecturer at Grm Novo mesto –Centre of Biotechnics and Tourism, Vocational College. She is a PhD student in management and organization at the University of Ljubljana, Faculty of Economics. Her main research interests are training as the age management strategy, strategies to coping with diversity issues.

E-mail: mojca.kogovsek2@guest.arnes.si