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HOW DO EPISTEMOLOGICAL BELIEFS AFFECT TRAINING MOTIVATION?

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Abstract

Studies show that human resources development through workplace training is one of the major investments in the workforce in today's globalized and challenging market. As training motivation influences employees' preparation for the workplace training, their respond to the programme, their learning outcome, their performance levels, and use of acquired knowledge and skills in their workplace it seems logical to investigate and determine antecedents of training motivation. The aim of this study was to examine the relationship between the concepts of epistemological beliefs, training motivation and the actual participation in the workplace training. We predicted that epistemological beliefs would have an effect on training motivation and actual participation on the workplace training and that there would be a positive relationship between the concepts, meaning that the more sophisticated epistemological beliefs would lead to higher motivation and participation. To test the epistemological beliefs, the Epistemic Belief Inventory (Schraw, Bendixen & Dunkle, 2002) was used and adjusted to the workplace setting. Then the results were compared to employees' training motivation, which was measured with a questionnaire made by authors of the present study, and employees' actual number of training hours annually. The results confirmed the relationship between the concepts as well as a significant predicting value of epistemological beliefs on motivation and actual participation. Epistemic Belief Inventory did not yield expected results reported by the authors of the instrument therefore the limitations, possible other interpretations and suggested further exploration are discussed.

Keywords: *epistemological beliefs, motivation, workplace training*

1. INTRODUCTION

In today's economically challenging world of globalization it is crucial for employers to invest in their workforce in order to stay competitive (Ouelett, 2012). Workplace training is one of the possibilities to promote human resources development and studies show that employees' training has a direct positive effect on organizations' performance and sustainable development (Ji, Huang, Liu, Zhu, & Cai, 2012). There are many factors that may influence the actual participation in the training; one of those is employees' training motivation. Many studies have shown (review in Abdul Aziz & Ahmad, 2011) that motivation is a key factor for training effectiveness. If the internal and external antecedents of employees' motivation for the workplace training were known, HR departments or employers could have some control over how to motivate workers to engage themselves in the workplace training and become a skilful workforce.

There are many motivational theories trying to explain the concept in general. Those might clarify the principles behind employees' motivation for the workplace training. However, the focus in this paper will be on relation between motivation and epistemological beliefs where we will investigate whether epistemological beliefs could predict motivation and actual participation in workplace training.

Epistemological beliefs have been a topic of research for the past 60 years especially in a school environment where researchers tried to uncover the principles of people's core assumptions about knowledge and learning and, primarily, their effect on actual learning and academic achievement. This study, however, focuses on adult employees and workplace setting in Slovenia.

1.1 Epistemological Beliefs

Epistemology is an area of philosophy that discusses the nature of human knowledge. Epistemological beliefs[1], therefore, question particular issues such as how individuals gain knowledge, their theories and beliefs about knowing and the influence their beliefs have on cognitive processes (Hofer & Pintrich, 1997). Many studies have been investigating epistemological beliefs (review in Hofer & Pintrich, 1997) since 1950s; however, it is difficult to find an agreement on the actual construct of epistemological beliefs, its dimensions and connectivity to other constructs in cognition and motivation.

The majority of research has focused on students and school environment where Perry (Hofer & Pintrich, 1997) was the first to suggest that students make the meaning of their educational experience as an evolving developmental process rather than reflection of personality. Perry's seminal work focused on development of epistemological beliefs in students. He stated nine positions that were clustered into four categories: dualism, multiplicity, relativism, and commitment within relativism (review in Hofer & Pintrich, 1997).

Inconsistencies in results of many studies that followed Perry's work let Schommer (1990) to propose that personal epistemology is a belief system that is multidimensional rather than one-dimensional following certain stages. She developed a questionnaire that yielded four factors: fixed ability, quick learning, simple knowledge, and certain knowledge (this is a naïve perspective; however, all dimensions are viewed as a continuum). Schommer reported that all of the factors could have been derived from other authors' work and thus seemed plausible. She failed to identify the fifth belief (omniscient authority) which was theorized by other researchers having found the relationship between authority and skilled reasoning (review in Schraw et al., 2002). The five distinct beliefs are thus beliefs about fixed ability to gain knowledge (vs. acquired ability), simple knowledge (vs. complex knowledge), certain knowledge (vs. tentative), quick learning (vs. gradual acquisition), and source of knowledge (authority vs. observation). Those dimensions represent more or less independent beliefs which means that an individual could be sophisticated[2] in some beliefs but not necessarily in others as well. There is still an ongoing debate whether the structure of epistemological belief system truly consists of five dimensions as some studies show inconsistent findings (Hofer & Pintrich, 1997).

In her several studies about epistemological beliefs Schommer (Hofer & Pintrich, 1997) concluded that students from junior college to university change their beliefs about knowledge (this is congruent with Perry's principles of development or change of epistemological beliefs). University students are more likely to believe in fixed ability, whereas junior college students tend to believe in simple knowledge, certain knowledge and quick learning (Schommer, 1993). Schommer, Calvert, Gariglietti, & Bajaj (1997) found in their study that beliefs change from the freshman to the senior year in a way that simple knowledge, certain knowledge and quick learning decrease. Cano

1 In the present study, the notion "epistemological beliefs" will refer to individuals' beliefs about the nature of knowledge and knowing (Hofer & Pintrich, 1997). Beliefs refer to the state in which an individual holds an assumption of something being true (Schwitzgebel, 2010).

2 A term sophisticated beliefs (as opposed to naïve beliefs) in used in personal epistemology for describing beliefs in knowledge and knowing that go beyond perceiving knowledge as absolute and transferable and rather comprehending it as a complex concept with multiple perspectives (Brownlee, Nailon & Tickle, 2010).

(2005) reported that epistemological beliefs become more realistic and complex throughout secondary education. Schommer (1990) found that older students were more likely to believe that the ability to learn is acquired (dimension "control of knowledge"). Education and parents' demands influence students' complexity of their epistemological beliefs in a way that the higher education and the higher expectations parents have to their children, the more likely they are to develop sophisticated epistemological belief system.

A significant relationship between epistemological beliefs and learning outcomes (Cano, 2005), learning goals (Cavallo, Rozman, Blickenstaff, & Walker, 2003), and comprehension and interpretation of information (Schommer, 1990), where students with more sophisticated beliefs tend to be more successful that their peers with less sophisticated beliefs, was reported. Boden (2005) found that epistemological beliefs correlate to university students' perception of readiness for self-directed learning; they are more open to learning opportunities.

Bath & Smith (2009) reported that epistemological beliefs predict lifelong learning[3]. Their study showed that students with more sophisticated beliefs and openness to intellectual experiences focus on understanding and comprehension of meaning, relation of ideas and use of evidence and logic as well as, compared to their peers, are more likely to be lifelong learners. From their results, Bath & Smith conclude that it is important to develop more sophisticated beliefs in students, should the desired outcome of the education be creating a lifelong learner.

Bauer, Festner, Gruber, Harteis, & Heid (2004) argue that there are at least two reasons why epistemological beliefs are relevant for workplace learning[4]. They hinder or foster the seeking for workplace learning opportunities and influence the appraisal of workplace being seen as a learning environment or not. People whose epistemological beliefs are less sophisticated are less likely to perceive the workplace as a learning environment (Bauer et al., 2004).

1.2 Training Motivation

Training motivation[5] defined as "direction, intensity and persistence of learning directed behaviour in training context" (Colquitt, LePine & Noe, 2000, p. 678) is one of the most important factors that influences employees' respond to a training programme (Facteau et al., 1995).

Many studies have shown that employees' level of training motivation influences their preparation for the workplace training[6], their respond to the programme, their learning outcome, their performance levels, and use of acquired knowledge and skills in their workplace (review in Smith, Jayasuriya, Caputi, & Hammer, 2008). Therefore, workplace training is important construct in relation to organizational learning and knowledge management. Adult learning theory puts an emphasis on the necessity of adults wanting to learn; if not, their lack of motivation will impair learning and an organization will experience a loss of financial and time resources and receive nothing in return (Cohen, 1990).

A study from Dysvik & Kuvaas (2008) showed that a relationship between perceived training opportunities and organizational citizenship behaviour

3 "Our last assumption is that only an over-all, lifelong education can produce the kind of complete man the need for whom is increasing with the continually more stringent constraints tearing the individual asunder. We should no longer assiduously acquire knowledge once and for all, but learn how to build up a continually evolving body of knowledge all through life—'learn to be'" (Faure, 1972, p. vi).

4 Workplace learning differs from the traditional teacher – student learning in the classroom in terms of being more complex experiential process (Bauer et al., 2004).

5 The terms "training motivation" and "motivation for the workplace training" are used interchangeably in this paper. Another branch of motivation is work motivation, which differs from training motivation mostly in terms of being broader and thus comprising different aspects of work, including training; it is the process of empowering employees' behaviour and level of their effort at work (review in Yilmaz, 2013).

6 Workplace training refers to employees' professional development – acquisition of skills and knowledge that account for personal and career advancement and can result in better performance on tasks the job requires (Ouellet, 2012).

was mediated by intrinsic motivation[7]. This means that training and development of employees could increase organizational citizenship behaviour when intrinsically motivated employees hold a positive perception of training and development. This finding could help managers understand why highly intrinsically motivated employees should be given opportunities for training and development – when they perceive it positively, they will demonstrate behaviours of added value from training and development in the workplace. Therefore, having known the impact of motivation, one should investigate the antecedents of training motivation. This paper examines whether epistemological beliefs could represent one of the variables that influence motivation for the workplace learning.

Paulsen & Feldman (1999) reported statistically significant relations between dimensions of epistemological belief system and motivational constructs (such as task value, self-efficacy, intrinsic and extrinsic goal orientation, test anxiety, control of learning). Results on a college student sample showed that learners with belief of knowledge being simple (i.e. naïve belief) were less likely to appreciate the value of learning task, felt that their capacity to learn is less efficacious, perceived an external control over learning, and hold an extrinsic goal orientation, compared with students having more sophisticated belief system. Ravindran, Greene & DeBacker (2005) investigated the relation among epistemological beliefs, achievement goal, application learning and cognitive engagement of prospective teachers and found that the goal and belief were important for predicting meaningful and shallow cognitive engagement. Students with naïve belief system (thinking of knowledge as simple, certain, obtainable quickly, and from authorities) were inclined to shallow processing. Kizilgunes, Tekkaya & Sengur (2009) proposed a model of possible association between epistemological beliefs, achievement motivation and learning outcomes and thus hypothesized that epistemological beliefs contribute to both constructs directly. Their study results suggested a direct influence of epistemological beliefs on learning approach and indirect influence on achievement through motivation.

1.3 Research Question

As seen above, relation between epistemological beliefs and motivation has been found in school setting. Therefore, this study's main question is whether employees' epistemological beliefs could have a similar effect in the actual participation in the workplace training. Thus, the purpose of this study is to examine the relationship between epistemological beliefs, motivation and actual participation in the workplace training.

Let us state our hypothesises.

(1) There will be a positive relation between epistemological beliefs and motivation for the workplace training (the more sophisticated beliefs, the higher the motivation) as well as for the actual participation in the workplace training.

(2) Epistemological beliefs will predict the training motivation and actual participation in the workplace training.

(3) There will be a positive correlation between motivation and actual participation in the workplace training.

(4) With age, the epistemological beliefs will remain constant.

We expect the results to provide us with information regarding the impact of epistemological beliefs on motivation and participation in the workplace training as this could assist HR departments or employers to understand the issue behind their employees' motivation and success at the workplace training and learning.

2. METHODOLOGY

2.1 Sample

The sample included Slovenians employees. The number of participants was 289; 80 male and 208 female (one participant did not indicate his/her gender). Their age ranged from 17 to 64 with an average of 39.09 (*SD* = 17.46).

7 Intrinsic motivation represents the engagement in the activity for its own sake because the reward is the satisfaction associated with the activity itself (Deci, 1971).

2.2 Instrument

Instrument was composed of four parts: demographical questions, the Epistemic Belief Inventory, Training Motivation Questionnaire, and training hours in the last 12 months (representing the actual participation in the workplace training).

Demographical questions included: gender, age, level of education, role (manager, non-manager), years of service in current position, and employment sector. There were 10 levels of education given: Unfinished primary education, Finished primary education, Short vocational upper secondary education (2 years), Vocational upper secondary education (3 years), Secondary school, First cycle professional education/higher vocational education, Undergraduate studies (1st Bologna cycle), Graduate studies (2nd Bologna cycle), Master of science/Specialization, and Doctorate. As for the employment sector there were three options given: public sector, private sector and other where participants alleged the sector.

The Epistemic Belief Inventory (EBI; Schraw et al., 2002) is a 32-item instrument based on theoretical background of Schommer's (1990) four dimensions of epistemological belief system and added omniscient authority. Thus, these five factors include omniscient authority (e.g. "People shouldn't question authority."), certain knowledge (e.g. "What is true is a matter of opinion."), quick learning (e.g. "If you don't learn something quickly, you won't ever learn it.), simple knowledge (e.g. "The best ideas are often the most simple."), and innate ability (e.g. "Some people are born with special gifts and talents."). Individuals respond to the particular statement on a 5-point Likert agreement scale (1 is "strongly disagree" and 5 is "strongly agree"). Lower scores indicate more sophisticated beliefs. In order to adjust EBI to the workplace setting, some questions (21.88% of all the questions) referring to the school setting were adjusted accordingly (e.g. "Students who learn things quickly are the most successful." was rewritten into "Employees who learn quickly are the most successful."). The inventory was translated into Slovenian language.

Authors of this research conducted a questionnaire named *Training Motivation Questionnaire* (see Appendix) that was used for measuring motivation for workplace training. Six statements were representing a positive attitude towards workplace training and six of them the negative. Participants were asked to indicate their agreement with the statement on the Likert type of scale (1 is "strongly disagree" and 5 is "strongly agree").

2.3 Data Analysis

To test the empirical structure of epistemological beliefs and training motivation the factor analysis was performed. ULS and PCA were used as extraction methods (eigenvalue criterion and Scree plot) with Varimax rotation.

To test hypothesises one and three the Spearman's rho was used. For testing the hypothesis two the simple regression was used and One-way ANOVA was used to test the hypothesis four.

2.4 Results

The Shapiro-Wilk normality test showed a non-normal distribution of results on EBI as well as on Training Motivation Questionnaire. The ULS analysis of EBI yielded a five-factor solution (see Table 1) with 22 items remaining, explaining 35.08% of the total variance (Cronbach's alpha = .69). None of the factors could have been assigned any of the a-priori factors reported by Schraw at al. (2002), except for the factor 3 that could have represented the innate ability. The score on EBI was computed as a sum of average scores on particular factors. The distribution of the sum scores was normally distributed (SW = .997, df = 265, p = .889).

Table 1: Number of items loading on factors, eigenvalues after rotation and variance explained for the five-factor structure of epistemological beliefs.

	N of items retained	Eigenvalue	Variance explained (%)
Factor 1	8	2.59	11.78
Factor 2	4	1.64	7.46
Factor 3	3	1.25	5.69
Factor 4	4	1.21	5.48
Factor 5	3	1.03	4.67

The PCA analysis of Training Motivation Questionnaire yielded one-factor solution with 8 items remaining (see Appendix), all of which explained 52.8% of the total variance (Cronbach's alpha = .86). The scored training motivation did not distribute normally.

The relationship between epistemological beliefs and motivation for the workplace training was negative, $r = –.227$, $p \leq .000$. Epistemological beliefs and actual participation in the workplace training were negatively correlated, $r = –.215$, $p = .001$, which means that the hypothesis 1 cannot be confirmed.

The simple regression analysis showed that epistemological beliefs significantly predicted motivation for the workplace training, $\beta = 5.02$, $t(244) = 32.12$, $p \leq .000$ and explained a significant proportion of the variance in training motivation scores, $R^2 = .05$, $F(1, 244) = 13.61$, $p \leq .000$. Epistemological beliefs significantly predicted the actual participation in the workplace training, $\beta = 82.79$, $t(221) = 2.97$, $p = .003$ and non-significantly explained a proportion of the variance in the hours of the actual participation in the workplace training, $R^2 = .004$, $F(1, 221) = .96$, $p = .33$, which means the hypothesis 2 may be partially true.

Motivation for the workplace training was significantly related to the actual participation in the workplace training, $r = .258$, $\leq .000$; hence the hypothesis 3 is confirmed.

In support of the hypothesis 4, age did not affect the epistemological beliefs, $F(42, 221) = 1.44$, $p = .051$, therefore we could keep the hypothesis.

Due to lack of research on epistemological beliefs in the work environment, we did not hypothesise about other possible relationships and effects the examined three concepts might have. However, the demographical information in the study was chosen upon foreseeing possible variables that might affect epistemological beliefs, training motivation and the actual participation in the workplace training. Here we report some results that could be drawn from the observed data.

T-test showed that there is no significant difference in epistemological beliefs between managers ($M = 8.19$) and non-managers ($M = 8.38$), $t(236) = –.523$, $p = .602$. In addition, Mann-Whitney U test reported no difference in their training motivation ($Mdn = 4.63$ for managers and non-managers) either, $U = 5845.5$, $p = .501$, $z = –.66$, $r = –.04$, nor the actual participation in the workplace training, $U = 5300$, $p = .154$, $z = –1.43$, $r = –.09$, $Mdn_{non\text{-}managers} = 25.0$, $Mdn_{managers} = 34.0$.

Nonparametric Kruskal-Wallis test showed a significant difference in hours of actual participation in the workplace training according to individuals' level of education ($H = 17.46$, $p = .015$). One-way ANOVA test showed a significant difference in epistemological beliefs ($F(8, 255) = 2.44$, $p = .015$). Post hoc tests could not have been performed due to too few cases in some groups of education level. There was no significant difference in their motivation for workplace learning ($H = 12.42$, $p = .134$).

Mann-Whitney U test showed that women (Mdn = 4.75) significantly differ from men ($Mdn = 4.37$) in training motivation, $U = 5563$, $p = .001$, $z = –3.24$, $r = –.20$. However, no difference was found in actual participation in the workplace training ($U = 5644.50$, $p = .289$, $z = –1.06$, $r = –.07$) between men ($Mdn = 34.0$) and women ($Mdn = 25.0$) nor epistemological beliefs ($t(262) = 1.04$, $p = .298$, $M_{women} = 8.24$, $M_{men} = 8.54$).

Years in service in current position significantly affected the epistemological beliefs ($F(99, 164) = 1.512$, $p = .010$). Post hoc tests could not have been performed because there were more than 50 groups. Years in service in current position do not, however, have any effect on training motivation ($H = 102.46$, $p = .282$) nor actual participation in the workplace training ($H = 86.49$, $p = .722$).

Employment sector significantly distinguishes among individuals' actual participation in the workplace training ($H = 6.56$, $p = .038$) as well as epistemological beliefs ($F(2, 240) = 3.99$, $p = .020$). Post hoc tests with Mann Whitney U test showed a significant difference ($p = .009$) in actual participation in the workplace training between the people who work in public sector ($M = 58.5$) and other sectors ($M = 24.5$). As "other sector", participants indicated either a non-governmental organization or did not provide any explanation. Games-Howell's post hoc test showed there is an important difference ($p = .02$) in epistemological beliefs between the employ-

ees in public sector (M = 7.92) and private sector (M = 8.65). The workplace motivation is not effected by employment sector (H = 3.21, p = .210).

2.5 Disscusion

For the past 60 years, epistemological beliefs have been a topic of research primarily in the school environment. Very little has been done in this field regarding epistemological beliefs of individuals once they finish education and employ themselves. Hence, this paper investigates epistemological beliefs in work settings in Slovenia, more precisely, the relationship between epistemological beliefs, training motivation and actual participation in the workplace training.

The results showed a negative relation between epistemological beliefs and motivation for training, which is contrary to predicted positive correlation. Similarly, it was demonstrated that the correlation between epistemological beliefs and actual participation in the workplace training is negative, too, albeit predicted positive relationship. Negative relationship is unexpected as other researchers (e.g. Paulsen & Feldman, 1999; Kizilgunes, Tekkaya & Sengur, 2009) reported a positive relationship between epistemological beliefs and motivation. Students' motivation level was lower if they held more naïve beliefs compared to students with the more sophisticated beliefs. Moreover, epistemological beliefs seem to contribute to achievement through motivation. People whose epistemological beliefs are less sophisticated are less likely to perceive the workplace as a learning environment (Bauer et al., 2004) and are thus less likely to engage themselves in workplace training. Possible explanation of the results may be found in the limitations of the study (see Conclusion).

Motivation has an impact on how an employee will react to the training programme, how they will perform, how much they will learn and whether they will transfer the gained knowledge to their work (review in Smith et al., 2008). That is why it is essential to study motivation for the workplace training, as in order to stay competitive on today's market, employers have to invest in development of their workforce. Results in our study indicated that epistemological beliefs could predict both the motivation for the workplace training and the actual participation in the workplace training, however the variance explained is small which means that one should examine other possible predictors. Moreover, the relationship between motivation and actual participation proved to be significant and positive, although the correlation is small. This means that people who are more motivated to attend the workplace training actually participate more frequently.

The possible other predictors of training motivation can be extracted from other studies. Colquitt et al. (2000) conducted a meta-analysis of the training motivation literature, trying to identify the proximal and distal factors[8] that influence the training motivation. They reported that, for example, locus of control was related to motivation to learn (individuals with internal locus of control were more motivated to learn). They found that the proximal factors that mediate the training motivation are self-efficacy, valence[9] and career variables whereas the distal factors were personality, age and situational variables. Career variables, job involvement, organizational commitment, career planning, and career exploration positively correlated with training motivation. Individuals that value learning outcomes showed higher level of motivation. Smith et al. (2008) reported that the proximal factors (self-efficacy, expectancy and valence) explained 43% of the variance of goal intentions; in addition, goal intentions related to the training outcomes (affective reactions, utility reactions and transfer intentions). Therefore, they conclude that goal intentions can be used as an alternative measure of motivational aspects of training.

Merkač Skok (2013) reported another possible antecedent of training motivation. She found that possibility for promotion affects employees training

8 Proximal factors are factors that have a direct impact on training motivation whereas the distal factor affect motivation through the proximal factors (Colquitt et al., 2000).

9 Valence refers to an individual's ideas about the desirability of certain outcomes over others (Smith et al., 2008).

motivation and motivation for lifelong learning as knowledge and work experience influence the possibility for development and career.

Cohen (1990) was investigating the managerial role and its impact on motivation for workplace training. She reported that employees were more motivated when their supervisors were supportive and when employees perceived the attendance to the workplace training as voluntary rather than mandatory; employees believed that the voluntary nature of the attendance motivated them to actually attend the training.

Facteau et al. (1995) found that variables that relate to pre-training motivation are social support variables (environmental favourability for training), intrinsic incentives, reputation of the training, organizational commitment, and compliance. They, as well, showed in their study that managers, who were less likely to attend the training because it was mandatory, demonstrated higher levels of motivation to attend training. Contrary to what the authors expected, extrinsic incentives, career exploration, and career planning were not related to managers' motivation. This finding differs from conclusion of Cohen (1990); however, this might be due to different populations (managers vs. subordinates). Some authors (e.g. Mathieu, Tannenbaum & Salas, 1992), on the other hand, reported non-correlation among those variables.

There is another explanation in the theory of motivation. Expectancy-value theory (Wigfield & Eccles, 2000) explains how people engage themselves in a learning activity only when they perceive it to be of a personal value and expect to perform successfully.

Although some authors (e.g. Schommer, 1990, 1993; Cano, 2005) report about the change in epistemological beliefs in high school students over time in terms of transforming naïve beliefs into sophisticated and complex beliefs, we predicted that epistemological beliefs should not significantly change with age once an individual finishes with formal education. An individual with already sophisticated epistemological belief system cannot have even more sophisticated one; unless there is a change in certain dimensions of epistemological beliefs, as people can be sophisticated in some beliefs and naïve in others (Schommer, 1990). This, however, was not analysed due to unstable structure of epistemological beliefs system as it was found in the present study.

Epistemic Belief Inventory

The 5-factorial structure of EBI did not prove to be representing the same factors as supposed by Schraw et al. (2002). Innate ability could have been extracted from the results, however, the other four factors failed to be contently homogenous and thus none of the a-priori named factors could be recognized. Overall, the inventory did not offer a solid representation of epistemological belief system as supposed by Schraw et al. (2002).

Hofer & Pintrich (1997) discuss the problematic Schommer's four-dimensional structure of epistemological belief system. They report that simple knowledge and certain knowledge appear consistent across studies and with other epistemological models and theories (see Hofer & Pintrich, 1997) whereas other factors do not invariably follow that pattern. They state that, for example, fixed ability concerns more the nature of intelligence as a psychological trait of an individual rather than an epistemological dimension. Similarly, quick learning seems to be a perception of the difficulty of a particular learning task and a goal about the learning, which can be distinguished from knowledge, even though the concepts could be related. In some of the studies innate ability loaded on the quick learning factor. In addition, the fifth hypothesised factor (omniscient authority) still has to be empirically validated. However, Schraw et al. (2002) included it into their inventory and confirmed the structure of five factors.

Ogrin (2012) used EBI on a sample of Slovenians secondary school students and found that in order to follow the five-factor structure, she had to eliminate five items. The five-factor structure explained 41.48% of the variance of the EBI, whereas the authors of the inventory reported the 60% of variance explained. The reliabilities for particular factors were lower than the ones reported by the authors of the inventory.

3. CONCLUSION

The purpose of this study was to see whether epistemological belief system could predict the training motivation and the actual participation in the workplace training. Knowing the antecedents of motivation for the workplace training is important as nowadays workplace training has become one of the crucial competitive edges. Hence, the knowledge about how to motivate employees to engage themselves in the workplace training could be of help as the motivation affects not only the interest in learning but also the learning outcomes. Our study showed ambiguous conclusions. Epistemological beliefs could predict the training motivation and the actual participation in the workplace training, however, with little variance explained. On the other hand, the relationship between the concepts did not prove to be the same as in previous studies.

Before coming to conclusion, we should mention the limitations of the study. EBI was primarily constructed for measuring epistemological beliefs in students; in this study, however, it was used in the sample of adult employees. This is, to our knowledge, the second use of EBI in Slovenia, which means that the inventory still lacks a validation in Slovenian workplace environment. Furthermore, some of the items were adjusted to the workplace setting. The Training Motivation Questionnaire was conducted by the authors of the study and even though there could have been one-factor extracted, the distribution across the items and collective score is not normal. Hours of actual participation indicated that there is little or no variation across the sample in their attendance of the workplace training, which could reflect non-normality in distribution of epistemological belief system and motivation as the constructs proved to be correlated.

The questions about the construct validity of epistemological beliefs still remain and are expected to be addressed in subsequent research. It is still unclear what EBI measures and to what extent the measure is the construct of epistemological belief system. Furthermore, the structure of epistemological beliefs should be examined in the adults once they finish formal education. Perhaps, non-normally reflects the fact that individuals' epistemological beliefs develop fully by the end of formal education. On the other hand, little is yet known about development of sophisticated epistemological beliefs. This is, (1) how they develop over the years and in adulthood and (2) how the development and learning process could be facilitated in order to help individuals acquire more sophisticated epistemological belief system, although studies report that age and education positively relate to epistemological beliefs.

As for the training motivation, the research on already studied antecedents should continue in order to give us a clearer insight into the construct. Future studies could also investigate the impact of the training motivation on actual use of gained knowledge in the workplace; this is to what extent trainees learn and use obtained knowledge at their work. This could provide us with information about the effect of training motivation on organizational learning and knowledge management.

EXTENDED SUMMARY / IZVLEČEK

V globaliziranem svetu je vlaganje v zaposlene ključen dejavnik konkurenčne prednosti na trgu. Usposabljanje na delovnem mestu je eden izmed načinov vlaganja v lasten kader; raziskave pa kažejo, da ima prav izobraževanje pozitiven učinek na učinkovitost in razvoj organizacije (Ji, Huang, Liu, Zhu in Cai, 2012). Motivacija je tista, ki vpliva na pripravljenost in dejansko udeležbo posameznikov na dodatnih izobraževanjih in usposabljanjih, hkrati pa stopnja motivacije za usposabljanje vpliva tudi na predpriprave zaposlenih na izobraževanje, njihov odziv na izobraževanje, učne rezultate in uporabo pridobljenega znanja na delovnem mestu (pregled v Smith, Jayasuriya, Caputi in Hammer, 2008). Ta dejstva nas nagovarjajo k raziskovanju dejavnikov, ki vplivajo na motivacijo za izobraževanje. Namen raziskave je bil raziskati odnos med epistemološkimi prepričanji in motivacijo za izobraževanje na delovnem mestu, kot tudi dejansko udeležbo na izobraževanjih, saj bi poznavanje tega odnosa lahko

pripomoglo k razumevanju razlogov za delavčevo (ne)motivacijo za izobraževanje in (ne)uspešno udeležbo na usposabljanju.

Epistemološka prepričanja, prepričanja o naravi znanja in védenja, so zadnjih šestdeset let predmet raziskovanja predvsem na področju šolstva. Začetnik raziskovanja tega področja je bil Perry (pregled v Hofer in Pintrich, 1997), ki je razvoj epistemološki prepričanj pojmoval kot postopnega. Kasnejše raziskave so zaradi nekonsistentnosti ugotovitev pripeljale M. Schommer (1990) do razumevanja epistemoloških prepričanj kot večdimenzionalnega koncepta (in ne enodimenzionalnega kot je veljalo prej). Tako je M. Schommer opredelila štiri faktorje epistemoloških prepričanj: enostavnost znanja, hitrost učenja, vrojenost sposobnosti in gotovost znanja; nekateri avtorji pa dodajajo tudi peti faktor – vsevednost avtoritete (pregled v Schraw idr., 2002). Epistemološka prepričanja so lahko naivna ali sofisticirana, Bath in Smith (2009) pa ugotavljata, da so posamezniki s sofisticiranimi epistemološkimi prepričanji bolj nagnjeni k vseživljenjskemu učenju. Paulsen in Feldman (1999), ki sta raziskovala epistemološka prepričanja pri študentih, sta ugotovila, da se le-ta povezujejo z motivacijskimi konstrukti. Podobno ugotavljajo Kizilgunes, Tekkaya in Sengur (2009), ki so oblikovali model, ki povezuje epistemološka prepričanja, storilnostno motivacijo in učne izide, ter predpostavljajo, da epistemološka prepričanja prispevajo k obema konstruktoma.

Povezava med epistemološkimi prepričanji in motivacijo je v šolskem okolju vidna, nas pa je zanimala morebitna povezanost konstruktov na delovnem mestu; okolju, kjer raziskav o epistemoloških prepričanjih primanjkuje. Predvidevali smo, da bodo epistemološka prepričanja in motivacijo za dodatno izobraževanje na delovnem mestu kot tudi dejansko udeležbo na izobraževanjih pozitivno povezani. Dalje smo predvidevali, da bo z epistemološkimi prepričanji moč napovedati motivacijo za izobraževanje, prav tako pa tudi dejansko udeležbo na usposabljanjih. Pričakovali smo pozitivno povezanost motivacije in dejanske udeležbe na izobraževanju, prav tako pa predvidevali, da bodo z leti epistemološka prepričanja ostala konstantna.

V raziskavi je sodelovalo 289 zaposlenih starih od 17 do 64 let, ki so odgovorili na vprašalnik, sestavljen iz štirih delov: demografska vprašanja, Vprašalnik epistemoloških prepričaj (Epistemic Belief Inventory – EBI; Schraw idr., 2002), ki je bil uporabljen za merjenje epistemoloških prepričanj, Vprašalnik motivacije za izobraževanje ter vprašanja o številu opravljenih izobraževalnih ur.

Rezultati so pokazali negativno povezavo med epistemološkimi prepričanji in motivacijo, kar je nasprotno predvideni smeri korelacije. Regresijska analiza je pokazala, da epistemološka prepričanja statistično značilno napovedujejo motivacijo za izobraževanje na delovnem mestu, a je delež variance, ki ga pojasnjuje majhen. Napoved dejanske udeležbe na usposabljanju s pomočjo epistemoloških prepričanj se ni izkazala za statistično pomembno. Podatki kažejo, da sta motivacija za izobraževanje in dejanska udeležba na usposabljanju pozitivno povezani, starost pa ne vpliva na epistemološka prepričanja. Zaradi pomanjkanja raziskav na področju epistemoloških prepričanj v delovnem okolju drugih možnih povezav med konstrukti nismo predpostavljali, v rezultatih pa kljub temu navajamo nekaj ugotovitev, ki jih lahko izpeljemo iz pridobljenih podatkov. Vprašalnik EBI ni prikazal pričakovane strukture. Po izločitvi postavk preostale postavke niso nasičile istih faktorjev, kot to predvidevajo avtorji vprašalnika.

V zaključku navajamo omejitve raziskave ter predloge za nadaljnje raziskovanje.

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APPENDIX

Items Comprising the Training Motivation Questionnaire

1. I am happy to attend any workplace training my manager suggests.
2. I pre-prepare myself before I attend the workplace training.
3. I attend the workplace training only if it is held during my working hours.
4. If possible, I avoid any workplace trainings.
5. I would rather work extra hours than attend the workplace training.
6. I like attending seminars and workplace training.
7. I believe I already have all the knowledge needed for what I do.
8. Workplace trainings variegate my work.
9. I am interested into workplace training.
10. I do not like workplace training.
11. I believe I can improve my work with trainings' knowledge.
12. I attend the workplace training only on my manager's demand.

Notes

All items were presented in Slovenian language. Items 1, 4, 6, 8, 9, 10, 11, 12 were used to compute a score for training motivation.