

DEVELOPMENT OF SPECIALISTS' ATTITUDE TO OCCUPATIONAL HEALTH AND SAFETY

Dace Brizga, Vija Ozolina, Ludis Peks

Latvia University of Agriculture

dacebrizga@inbox.lv, vro@apollo.lv, ludis.peks@inbox.lv

Abstract. A growing problem in today's Latvia is the attitude of society accorded to safety in several fields which is realized in tragic incidents with many human victims. In November 2013, Latvia lost many lives in a shopping centre catastrophe, despite a sounding alarm and announcement asking people to immediately abandon the premises. This spring several children perished in a pond near their home, characterizing the attitude of parents to child safety issues. The statistical data of the State Labour Inspectorate show that in Latvia the number of accidents tends to increase. The authors of this study desired to find arguments to change the attitudes with a view to elevating the safety levels. Workplace employee safety is supervised by safety specialists who have acquired express knowledge of work and civil safety practices. Therefore, the aim of this investigation is to clarify the criteria and values shaping the attitude of OHS specialists in developing a safe work environment in an organization. The theoretical foundation of the research is based on the evaluation of attitude, good practice, and wellness program. As a result of non-structured observations and partly structured interviews in the research, it is apparent that the main criteria affecting the attitude of OHS specialists is the cooperation of the management with the employees in developing a safe work environment. Good practices and wellness programs in the workplace are the basis for safe work which is not harmful to health and ensures a decrease of accidents in the work place. It is necessary to continue research in order to develop training programs for university students, which would then facilitate the formation of the OHS specialists' positive attitude to safety, which is the basis for providing life-long good health.

Keywords: attitude, good practice, specialist, wellness program.

Introduction

Education is a continuous development process of competence – knowledge, skills and attitude. It is essential that while improving professional competence, a student – OHS specialist, head of organization would develop a positive attitude towards OHS thus reducing formation of formal attitude in society. Students of different age (from 20 to 60 and over) that on the basis of the researchers' – Guna Svence [1], Ilze Ivanova, Linda Zariņa [2] knowledge can be defined as adults, take part in OHS training programs. Gisela Labou [3-5] in the research focused on the research in cognitive maturity of life stages, indicating that cognitive development includes self-regulation – taking decisions independently and thinking in long-term traits. The researchers have indicated that adults in different stages of their life have different cognitive effect of cognitive development in which thinking develops. Thinking is affected by the experience obtained when having social difficulties and diversity of opinion. There are two types of experiences – constructive, which is a basis on which a further and more profound experience of life can be formed, destructive that impedes the gaining of further positive experience. Education expert Brazilian Paulo Freire [6] studied experiential learning grounded on dialogical cognitive process, based on the knowledge creation through transformation of the experience of the participants involved in the dialogue and critical reflection of the world. The primary focus in the learning process is on critical thinking – to develop new knowledge on the basis of the outcome of growth and change by relying on the analysis/reflection of the ongoing activities. The growing value lies in what is important to him. Self-directed learning is a type of studies typical to adults. Psychologist Jarvis defines self-directed learning as – “Learning that is controlled and managed by the learner. Sometimes, it is regarded as a teaching technique, but in other instances it is learning outside of the educational institution undertaken by learners out of their own interests, needs and concerns” [7]. Adults put forward aims on the basis of previously acquired knowledge and experience, and are able to identify evaluation criteria that are significant to them, work organization/planning, and application of the acquired knowledge. Jack Mezirow states that “Transformative learning may be understood as the epistemology of how adults learn to think for themselves rather than act upon the assimilated beliefs, values, feelings and judgments of others” [8]. In the interview given by the U.S. security expert Michael Johnson at the LNT TV program “Top” he pointed out that Latvia is a small country where we have too many accidents that testifies that we have poor safety culture and the root of the problem is that the residents of Latvia lack understanding on how important it is to follow safety

measures both, at work and on the road [9]. A number of researchers [10-13] indicate that safety culture is employees' attitude, beliefs, values and understanding with regard to safety, but the attitude is "a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour" [14]. Attitude is individual understanding of the values and their relation to behaviour [15]. Shalom H. Schwartz describes values as abstract higher goals that in human life have been ranked according to the principle of importance, and these values may encourage/motivate people to a certain action [16]. Human beings have both, cultural and personal values. Researchers put forward ten universal values: universalism, benevolence, tradition, conformity, security, power, achievements, Hedonism, stimulation, self-direction [17]. On the basis of the findings of some researchers, it can be said that the values of stimulation and traditions are closely associated with the behaviour, while the others are associated with it only partially, since they are mainly influenced by social norms [18]. Values focus on central goals of life and are located between personal and social goals [19]. "Values are objects that provide ongoing assurance about the priority of action or target when compared to other type of object or course of action. A dominant value system exists in each society culture" [20]. Reņģe pointed out that the results obtained in the provisional research carried out by Ivars Austers in 1996 showed that the predominant values in Latvia are the following – health, honesty, a good family life, a steady income, a good job, joy of life and the Latvian language, and these public values affect the values existing in the organization, but that does not mean they are always identical to the dominant values of society.

Safety climate is an objective indicator of attitudes to OHS issues [21]. Safety climate is described by employees' understanding of the priority of safety in their workplace as a result of the policies and practices implemented [22]. For example: development of workplace wellness programs. Workplace wellness is defined as "an organized, employer-sponsored programme that is designed to support employees (and, sometimes, their families) as they adopt and sustain behaviours that reduce health risks, improve quality of life, enhance personal effectiveness and benefit the organization bottom line" [23]. The number of accidents in Latvia has a tendency to rise: in 2011 it was 207, in 2012 – 220 [24]. In order to facilitate the reduction of accidents, solutions have to be found that would change the formal attitude of public towards work and civil protection. Good practice is being introduced in Latvian companies as a practical solution for OHS issues. The term "good practice" involves practical and effective solution for a variety of occupational health and safety issues that has been developed or is successfully used by a company, organization or country [25]. Good practice in companies show that the near misses are investigated (these situations are mostly reported by employees). Near misses can be divided into two groups. The first group is the one where people are not hurt, the other group – a dangerous situation that could result in an accident.

Due to the reduced funding allocated to all fields, safety and health at work and home is not given the necessary attention, it has been put into background. OHS refers to every human being and needs to be addressed jointly by the whole society and the attitude to OHS issues has to be changed. Mostly an employer bears all responsibility for safe working conditions, which is clearly a primary thing, but despite this fact employees' attitude and responsibility towards themselves, others and their work to be done is more and more emphasized in the society.

Materials and methods

To study the reasons for ignoring the safety requirements, and to investigate the impact of safety culture, safety climate, good practices and wellness programs on developing positive attitudes and reducing the number of accidents, the participants chosen for this study have all completed the 'Work and Civil Safety Studies' program.

These OHS specialists work in Latvian enterprises and have varying education levels which are regularly supplemented with professional courses and seminars. The respondents have different approaches and responsibilities in their everyday work, and therefore achieve various results in the safety level for each enterprise.

The data obtained from: 1) non structured observations carried out by the authors of the publication for more than ten years; 2) anonymous survey filled out by the students (EQF level 7) [26] of the LU (University of Latvia) Master study program "Protection of Work Environment and Expertise" and occupational health and safety specialists during professional development courses,

organized by the Riga Stradins University agency Institute of Occupational Safety and Environmental Health. The survey was answered by 81 respondents, their median age was 40.5 years old (Table 1). Distribution of the respondents by gender: women – 59 %, men 40 %. By using Mean, Median, Mode – Calculator program, mode (M_o) and median (M_e) were determined for the groups of the respondents, the values were ranked from 1-5 and Mean (average) for the total number of the respondents.

Table 1

Values shaping attitude of occupational safety and health – survey results

Profile of respondents					
Respondents		EQF level 7 [26]	OHS specialist	Total	
Number of respondents		23	58	81	
Respondents' age, in years	21-30	12	7	19	
	31-40	7	15	22	
	41-50	1	17	18	
	>50	3	19	22	
Respondents' gender	Female	16	32	48	
	Male	7	26	33	
Description of organization					
Is the management of organization interested in improving OHS system?	Yes	9	41	50	
	No	1	1	2	
	Partly	13	16	29	
Does the organization take part in the programme "Good Practices"?	Yes	7	30	37	
	No	12	27	39	
	Is going to be introduced	4	1	5	
Number of accidents happened in an organization	Near misses	2012	76	78	154
		2013	73	112	185
	Serious	2012	9	22	31
		2013	7	36	43
	Fatal	2012	-	-	-
		2013	3	-	3
The most important values of human life range from 1-5					
Values [27]	Success at work (career)	M_e	3	4	Mean 3.68
		M_o	3	5	
	Family	M_e	2	1	Mean 1.84
		M_o	1	1	
	Education	M_e	4	4	Mean 3.57
		M_o	5	4	
	Health	M_e	2	2	Mean 2.16
		M_o	1.2	1	
	Work	M_e	4	3	Mean 3.22
		M_o	5	3	

Results and discussion

In the previous research studies carried out by the authors [28], the five most significant values in the context of OHS were discovered (success at work (career), family, education, health, work). The results obtained show that family and health are ranked as the most important; success at work (career) is relatively lower. It should be noted that the respondents in the age group 21-30 ranked successes at work (career) higher, which can be explained by the fact that adults in various stages of maturity have different thinking, which forms as a result of life experience. The authors of the research wanted to find out what areas of knowledge have to be improved in order to facilitate the formation of positive attitude towards OHS for people. The obtained results show that 34 (42 %) of the respondents consider

control management to be a relevant course and wish to gain in-depth knowledge in the field; 26 (32 %) respondents considered the need to learn the basics of OHS important (with a particular emphasis on practical first-aid training), 11 (13.6 %) respondents indicated pedagogy and psychology, which explains and grounds the effect of risk factors on health.

The results obtained show the organizations where “Good practice” has not been implemented; there are a greater number of near misses, or serious accidents. Nine of the respondents stated that the information regarding accidents in the organization is confidential.

The answers to the question – what criteria would describe safe work environment the best, the respondents gave the following answers: the management of organization cooperates with the employees in creating a safe work environment; popularization of OHS and healthy lifestyle in the organization, the management supports an OHS specialist in creating the work environment that complies with the OHS requirements.

Conclusions

The authors of the research based on the studied publications and survey results stated that:

1. Attitude of the managers of the organization and an OHS specialist affects the number of accidents in a company
2. Implementation of “good practice” in the organization testifies positive attitude to OHS issues, which provides safe work culture and climate in the organization in order to solve occupational health and safety issues, recording even near misses
3. The formation of positive attitude of OHS specialists and the management of the organization is affected by the values the importance of which is different for adults in various stages of maturity
4. According to fundamentals of adult learning theory, the change of attitude and behaviour is possible through obtaining positive experience and practical skills
5. Improvement of education both, in educational institutions and workplace is important and would ensure development of positive attitude
6. An OHS specialist and the head of the organization needs pedagogical competence, management competence which is based on OHS, and communication competence, which promotes cooperation between employers, OHS specialists and employees.

References

1. Svence G. Pieaugušo psiholoģija (Adult psychology). Rīga. 2003. 180 p.(In Latvian)
2. Mārtinsone K. Pieaugušo izglītība (Adult education). Rīga. 2012.16 p. (In Latvian)
3. Labouvie-Vief G. Emerging adults in America. Coming of Age in the 21st Century. Edited by Jeffrey Jensen Arnett and Jennifer Lynn Tanner. 2006. [online] [31.01.2013.]. Available at: <http://academic.udayton.edu/jackbauer/Readings%20353/Labouvie-Vief.pdf>
4. Jain E., Labouvie-Vief G. Compensatory effects of emotion avoidance in adult development Original Research Article Biological Psychology, Volume 84, Issue 3, 2010, pp. 497-513.
5. Gilet A. L., Grün D., Studer J., Labouvie-Vief G. Valence, arousal, and imagery ratings for 835 French attributes by young, middle-aged, and older adults: The French Emotional Evaluation List (FEEL) Original Research Article Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology, Volume 62, Issue 3, 2012, pp. 173-181.
6. Mayo P. Gramsci, Freire and Adult Education: Possibilities for Transformative Action.1999. [online] [31.01.2013.]. Available at: books.google.lv/books?isbn=1856496147
7. Jarvis P. International Dictionary of Adult and Continuing Education. In association with A.L. Wilson, London, 2002. 202 p.
8. Mezirow, J. Epistemology of Transformative Learning. 2003. [online] [31.01.2013.]. Available at: http://184.182.233.150/rid=1LW06CB3L-1R1W9651Z5Z/Copy%20of%20Mezirow_EpistemologyTLC.pdf
9. TVNET/LNT TOP 10. [online] [01.12.2013.]. Available at: http://www.tvnet.lv/zinas/viedokli/488454-asv_eksperts_latvija_ir_zema_darba_drosibas_kultura
10. Cox S., Cox T. The structure of employee attitudes to safety: a European example. Work&Stress, vol 5, 1991, pp. 93-106.
11. Cooper M. D. Towards a model of safety culture. Safety Science 36, 2000, pp. 111-136.

12. Guldenmund F.W. The nature of safety culture: a review of theory and research Original Research Article Safety Science, Volume 34, Issues 1–3, 2000, pp. 215-257.
13. Reason J. Work and stress. vol. 12, NO. 3 293-306 Achieving a safe culture: theory and practice. 1998. [online] [31.01.2013.]. Available at: <http://46.65.185.13/reports/21may09-Potential/21may09-JReason.pdf>
14. Eagly A. H., Chaiken S. The psychology of attitudes. Harcourt Brace Jovanovich College Publishers. 1993, 794 p.
15. Maio G. R., Olson J. M. Value-attitude-behaviour relations: The moderating role of attitude functions. British Journal of Social Psychology, 33, 1994, pp. 301-312.
16. Schwartz S. H. Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Ed.), Advances in experimental social psychology. Vol. 25. 1992, pp. 1–65. New York: Academic Press. [online] [31.01.2013.]. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.220.3674&rep=rep1&type=pdf>
17. Schwartz S.H., Boehnke K. Evaluating the structure of human values with confirmatory factor analysis. Journal of Research in Personality, 38 (3), 2004, pp. 230–255.
18. Bardi A., Schwartz S. H. Values and behavior: strength and structure of relations. Personality and Social Psychology, 2003, pp. 1207-1220.
19. Gouveia V. V., Milfont T.L., Guerra V.M. Functional theory of human values: Testing its content and structure hypotheses. Original Research Article Personality and Individual Differences, Volume 60, 2014, pp. 41-47.
20. Reņģe V. Organizāciju psiholoģija (Organizational psychology). Rīga. 2002. 129 p. (In Latvian).
21. Coyle I. R., Sleeman S. D., Adams N. Safety Climate. Journal of Safety Research, Vol. 26, 1995, pp. 247-254.
22. Zohar D. Work Safety. Encyclopaedia of Applied Psychology, 2004, pp. 719-724.
23. Berry L. L, Mirabito A. M, Baun W. B. What's the Hard Return on Employee Wellness Programs? Harvard Business Review, 2010, pp.-10. [online] [31.01.2013.]. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2064874
24. Valsts Darba Inspekcija (State Labour Inspectorate). (In Latvian). [online] [24.11.2013.]. Available at: <http://www.vdi.gov.lv/lv/jaunumi/nelaimes-gadījumū-darba-statistika-uz-07-11-2013/>
25. Eiropas Darba drošības un veselības aizsardzības aģentūra (European Agency for Safety and Health at Work). European Network – Latvia. (In Latvian). [online] [20.10.2013.]. Available at: https://osha.europa.eu/fop/latvia/lv/good_practice/index.stm
26. Referencing of the Latvian Education System to the European Qualifications Framework for Lifelong Learning and the Qualifications Framework for the European Higher Education Area. Riga: Academic Information Centre. 2011, 137 p. [online] [31.01.2013.]. Available at: <http://www.nki-latvija.lv/content/files/Latvian-Self-Assessment-Report-2nd-version.pdf>
27. Brizga D., Pēks L. Proceedings of 7th International Scientific conference “Workplace wellness and specialists’ attitude to work safety”. February 7-8, 2014, Jelgava, Latvia, pp. 90-96.
28. Mean, Median, Mode – Calculator. [online] [20.10.2013.]. Available at: <http://easycalculation.com/statistics/mean-median-mode.php>