

Students Satisfaction with the Study Programme of Adult Education at University of Ostrava and Tomas Bata University in Zlín

Tomáš Sadílek

Vysoká škola báňská – Technická univerzita Ostrava

Abstract

The paper deals with describing the method of satisfaction measurement as a one of the marketing techniques used for detecting student satisfaction with a study program. In the treatise we try to analyze students satisfaction with the study program of adult education, which is offered at University of Ostrava and at Tomas Bata University in Zlín. In the theoretical part of the paper a methodological approach to satisfaction measurement is described. We focus on the Satisfaction Pyramid method which is suitable for universal satisfaction researches. The database comes from a questionnaire survey to ascertain students satisfaction with nine chosen factors. In the field part calculations of data are presented and describe total satisfaction, Satisfaction Index and partial satisfaction with significant factors like content, teacher expertise, new findings and other. The last part of the paper refers to importance of partial factors.

Keywords: marketing research, satisfaction measurement, Satisfaction Pyramid, adult education

Introduction

Due to the nowadays situation in Czech society, the public as well as private universities have to use principles of marketing in their management approaches. Thus they are developing their parts of marketing mix to appeal to their potential customer, who is a student. Universities also use these principles of marketing during study the period of every student. One of the methods of how to discover student's attitudes to his or her Alma Mater is the satisfaction measurement with the whole study program.

The main reason, why to analyze customer satisfaction could be this: The average business loses between 10 and 30 per cent of its customers each year; but

they often do not know which customers they have lost, when they were lost, why there were lost, or how much sales revenue and profit this customer decay has cost them (Nigel 2006). These principles are valid for private companies as well as for non-profit organizations e. g. universities other types of tertiary education institution.

The key definition of customer satisfactions could be this: Satisfaction is a tool for retention of customers. This is an customer's agreement between expected and gained value. We can define satisfaction as a subjective feeling of a customer about fulfilling his or her needs and wishes. These are determined by experiences, expectations as well as personality and environment.

Materials and Methods

Customer satisfaction theoretically is based on Dissonance Theory. It consists in the determination of customer expectations about the parameters of the product and its benefit and then the comparison of experiences after the purchase. If the experience is higher than the expectation, the customer is satisfied, if failing, he is dissatisfied. We also have to calculate with level of adaptation on the market, time and repeated satisfaction or dissatisfaction and tendencies of customer to habitual behavior (Kozel 2006).

It is difficult to estimate the satisfaction of university students, because every student can appreciate every attribute by a different way: some students are disappointed with difficulty of study and other students evaluate this difficulty as positive. There are also circumstantial proofs of student satisfaction like interest or lack of interest in studying at university, how many students change university, where they study, number of relatives who studied at the university in past (mostly parents of current students), but also parts of macro environment – location of university, competition and public opinion. Although these indicators can show something about satisfaction, we cannot conclude, if we did not make a satisfaction measurement. For the satisfaction measurement we can use qualitative research as well as quantitative. We use a structured or unstructured interview as a method of qualitative research. There is a proven instrument of quantitative research – questionnaire. Other methods, which are not used so, are survey and panel discussion with students. We have to make research repeatedly e. g. at the end of every semester or once per year.

When we use some the method for satisfaction measurement, we have to split the content of product or service to particular factors where we evaluate individual satisfaction and importance. To know a factor's importance is as significant as knowing the satisfaction, because with mutual comparison of satisfaction and significance we can find factors, where we should strive for the increase in satisfaction when considering total satisfaction (Spáčil 2003).

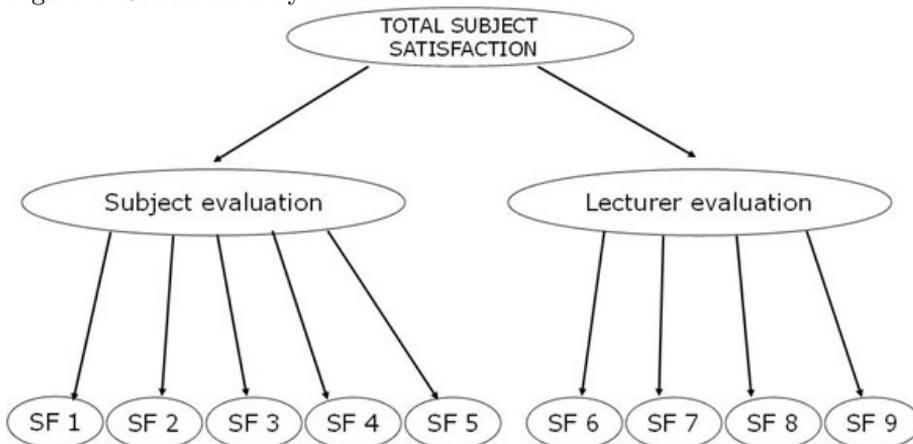
We can determine the significance of factor using two procedures. In the first procedure respondents set the significance of factors on their own and this is called declared significance. The second approach sets significance using a relationship between total satisfaction and partial factors. We use correlation analysis for this. The second approach can reveal incongruity between respon-

dent's declared significance of partial factors and their real significance. The incongruity can be intentional (respondents claim something different, than they are really thinking) or they cannot notify their attitudes. Some other approaches to satisfaction measurement are in the publications of Anderson et al. (1994) or Fornell et al. (1996) or others.

The method, which uses the second approach is called the Satisfaction Pyramid. Total satisfaction is situated at the top of the pyramid, which we explain by partial factors (F1 to F10) (Spáčil, 2003). This method of satisfaction measurement is under the way of correlation analysis, where we measure how intensive is relationship between partial and total satisfaction.

In our research we use a satisfaction pyramid with three levels of factors affecting total satisfaction. Factors SF 1 to SF 5 are included to Subject evaluation and factors SF 6 to SF 9 to Lecturer evaluation. All these factors are described in the Table 1.

Figure 1: Satisfaction Pyramid



Source: own elaboration

The questionnaire used in research is so constructed for respondents to evaluate the most important factors which influence the total satisfaction of respondents.

The first part of the questionnaire investigated partial satisfaction with individual subjects. For every university and year of study there were different version of the questionnaire considering the number of subject which students have finished. We have chosen subjects for the questionnaire to meet set criteria. There are obligatory subjects, which have important positions in the study plan, they have andragogical curriculum and they are also a parts of bachelor state exam questions. To compare subject from two different universities we have to choose subjects with a similar curriculum. After comparing them we put at UO 3 subjects for 1st year, 5 subjects for 2nd year and 12 subjects for 3rd year. At TBU there were 3 subjects for 1st year and 8 subjects for 2nd year.

Table 1: Structure of questionnaire for satisfaction analysis

		Satisfaction				
		1	2	3	4	5
SUBJECT						
Subject evaluation						
SF 1	There are contributive and new findings					
SF 2	The subject follow other subjects					
SF 3	The subject was very difficult					
SF 4	There is enough literature for study this subject					
SF 5	Total satisfaction with subject content					
Lecturer evaluation						
SF 6	The lecturer is an expert in his/her field					
SF 7	The lecturer clearly explains curriculum					
SF 8	Teaching is interactive					
SF 9	The lecturer appropriately uses teaching aids					
Total satisfaction with lectures						
TOTAL SATISFACTION WITH SUBJECT						
I would recommend this subject to other students						

Source: Own elaboration according to Spáčil (Spáčil 2003)

The second part of the questionnaire is consisted of questions, which focus on respondents' interest in specialization in the study programme and other study programs, where respondents have applied and the third part is consisted of segmenting questions.

We have chosen two universities for intended research: University of Ostrava and Tomas Bata University in Zlín. These two universities have been chosen intentionally, because they offer study programme of adult education only in part-time degrees, they have taught adult education for a short time period (UO since 2009 and TBU since 2010) and the image of these workplaces are not as good as well-established institutes (Prague, Brno, Olomouc).

We have made a collecting of data for analysis of student's satisfaction in December 2011. We have chosen this term, because at the end of the year students can evaluate also the satisfaction in the winter semester of their highest year of study. During questioning every respondent from the total sample received an email with reference to the questionnaire situated on the web page. The sample consisted of all students from the part-time degree at UO and students of the first and the second year of part-time degree at TBU. The total number of respondents was 216 and 124 of them responded.

Table 2: Characteristics of respondents

	UO		TBU	
	Absolute	Relative	Absolute	Relative
1 st year	30	37.5%	34	77%
2 nd year	30	37.5%	10	23%
3 rd year	20	25%	0	0%
Total	80	100%	44	100%

Source: Own elaboration

Results and Discussion

Total satisfaction and Satisfaction index

There is a similar distribution of satisfaction with study at both universities. At UO there are in total 60% respondents satisfied, of which 28% respondents are very satisfied and 32% are rather satisfied. At TBU there are 55% of respondents satisfied, of which 30% are very satisfied and 26% are rather satisfied. The Satisfaction Index pro UO is 76.9% and for TBA 68.3%.

Table 3: Distribution of total satisfaction

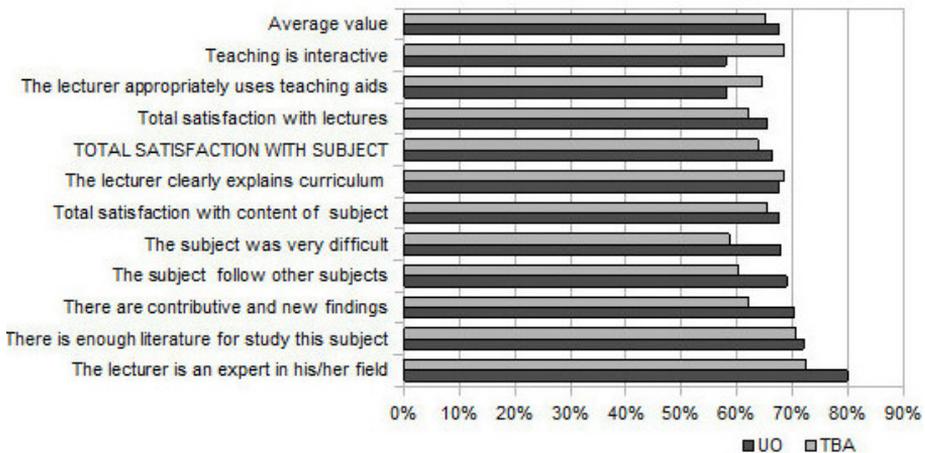
	Share	
	UO	TBA
Very dissatisfied	3.1%	11.5%
Rather dissatisfied	14.9%	10.3%
Neither satisfied nor satisfied	22.5%	23.1%
Rather satisfied	31.9%	25.7%
Very satisfied	27.9%	29.5%

Source: Own elaboration

Partial factors satisfaction

The rate of total satisfaction with subjects at the universities only vary a little. At UO there is 66% and at TBU is 64%. Respondents declare the highest level of satisfaction with expertise of teachers (UO 81% and TBU 73%) and with availability of literature (UO 72%, TBU 71%), but values of other factors diverge.

Figure 2: Partial factors satisfaction



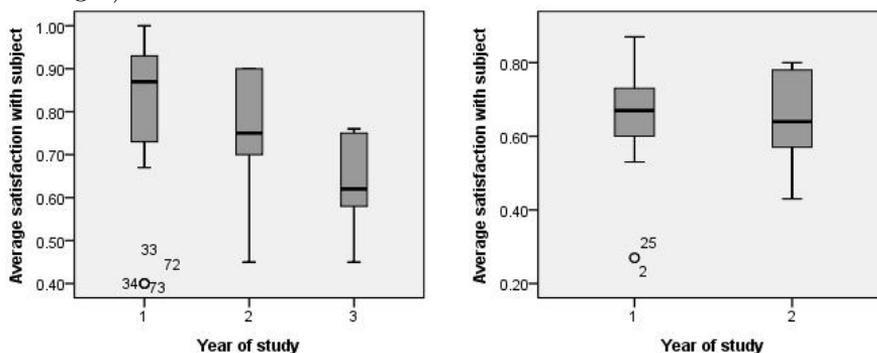
Source: Own elaboration

Average total satisfaction with subject by years

The construction of average satisfaction values of each factor has been made as a mean of all satisfaction values. In order to calculate satisfaction index, either the arithmetic mean or the geometric mean of the individual satisfactions is used (Willemsen 2011). In average satisfaction with subject by year of study,

there is a descended trend of average subject satisfaction with increasing year of study. We can explain it as new incoming students are full of expectations (and also illusions) whatever will the university offer them and they tend to

Figure 3: Average total satisfaction with subject by years (UO on the left, TBU on the right)

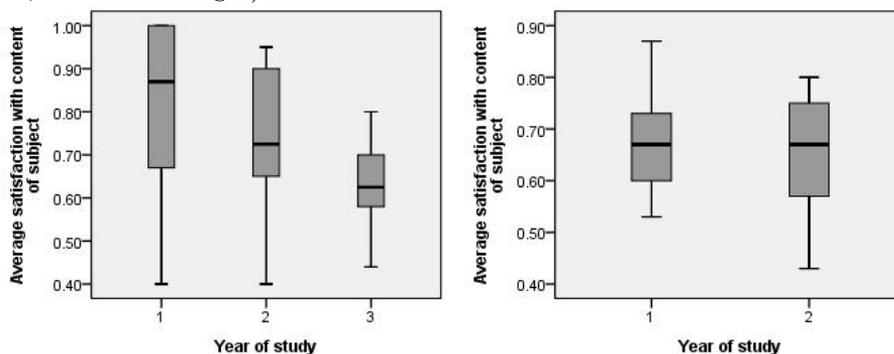


evaluate positively. In contrast to this, third year students, who have passed almost all subjects, loose their illusions and they can see contradiction between study (and subjects) awaiting and reality – what they have really learnt. Anyway in the 1st year of study, there are 4 respondents, who evaluate subject satisfaction distinctively less, than the rest of respondents. In the enclosed box-plot there is an extreme value in point 2. Average subject satisfaction is dependent on more partial factors, which are average satisfaction with subject content, satisfaction with new findings, satisfaction with succession and with difficulty. After testing ANOVA for sig = 0.05, we can say, that average total satisfaction with subject is depending on year of study (sig $\alpha = 0$).

On the other hand, at TBU students satisfaction with subject does not depend on year of study, average values of satisfaction are almost the same, but the variance is different.

Average total satisfaction with content of subject by years

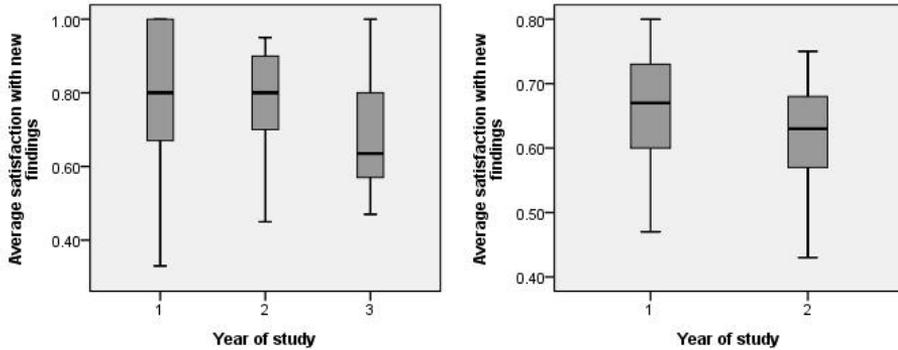
Figure 4: Average total satisfaction with subject content by years (UO on the left, TBU on the right)



There is a very similar trend like average satisfaction with subject, because average satisfaction descend with the increasing year of study. Adult education students at TBU declare their satisfaction with content of subject as independent of year of study.

Average total satisfaction with new findings by years

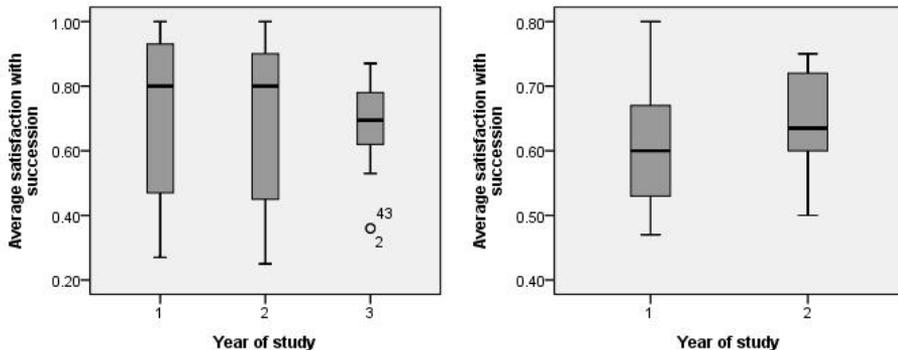
Figure 5: Average total satisfaction with new findings by years (UO on the left, TBU on the right)



There is another situation about factor of average satisfaction with new findings, where respondents studying in the 1st and 2nd year evaluate satisfaction same, but distribution of lower and upper quartile is different. The most critical are again 3rd year students, who evaluate satisfaction 15% less, than 1st and 2nd year students. TBU students are less satisfied by the increasing year of study, but this dependency is not statistically significant (ANOVA for sig = 0.05).

Average total satisfaction with succession by years

Figure 6: Average total satisfaction with succession by years (UO on the left, TBU on the right)

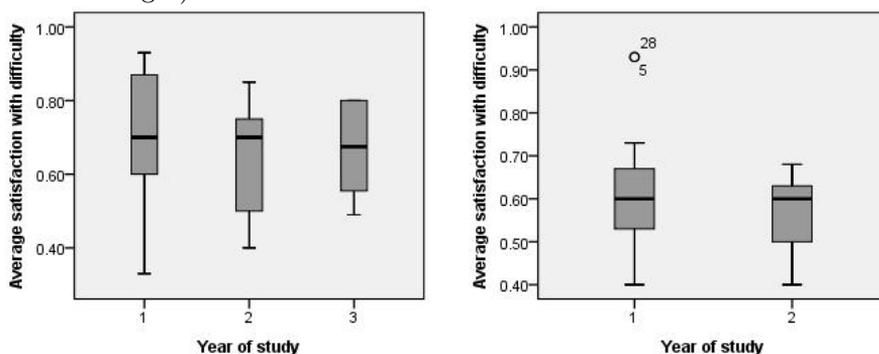


In this case we have similar results as at previous case and distribution of lower and upper quartile at 1st and 2nd year are almost same. Only one exception is group of 3rd year students, which evaluate satisfaction with succession

even less than 70%. On the other hand TBU students declare with increasing year of study also increasing satisfaction with succession, but this dependency is not statistically significant (ANOVA for sig = 0.05).

Average total satisfaction with difficulty by years

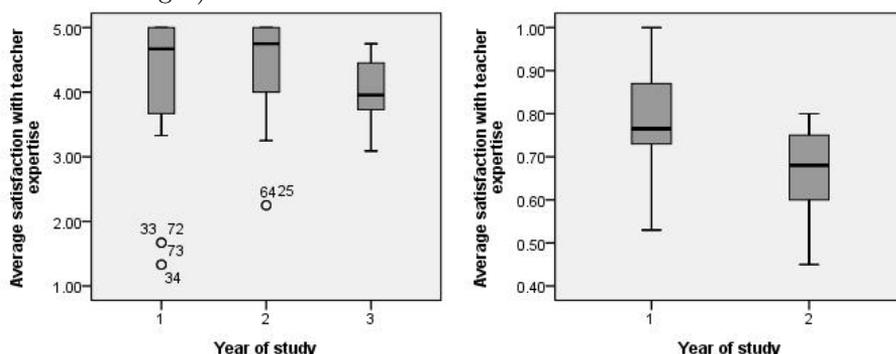
Figure 7: Average total satisfaction with difficulty by years (UO on the left, TBU on the right)



Values of average total satisfaction with difficulty by years are nearly coincident and average values were between 3.26 and 3.56. This is interesting, unlike previous factors average values are distributed more equally. We can explain it in two ways: Respondents are satisfied approximately same (independent on year of study) or respondents have chosen mean, which means neither satisfied nor satisfied. Average total satisfaction with difficulty by years of TBU students does not depend on year of study.

Average total satisfaction with teacher expertise by years

Figure 8: Average total satisfaction with teacher expertise (UO on the left, TBU on the right)



We can see (same as at previous question) descending trend of satisfaction with teacher expertise by year of study. Average satisfaction with teacher expertise at TBU depends at year of study (ANOVA for sig = 0.05, $\alpha = 0.03$).

Pearson correlation coefficient between total satisfaction and partial factors

Table 4: Pearson correlation coefficient between total satisfaction and partial factors

	UO	TBA
Total satisfaction with lectures	0.95	0.95
Total satisfaction with content of subject	0.92	0.98
The lecturer clearly explains curriculum	0.86	0.95
There are contributive and new findings	0.84	0.96
There is enough literature for study this subject	0.82	0.94
The lecturer appropriately uses teaching aids	0.8	0.92
The lecturer is an expert in his/her field	0.78	0.93
Teaching is interactive	0.73	0.95
The subject was very difficult	0.69	0.92
The subject follow other subjects	0.62	0.96

Source: own elaboration

In the table there are values of Pearson correlation coefficient for relations between total satisfaction with subject and each partial satisfactions. There is interesting, that TBU students evaluate nearly all factors as similarly important, interval of Pearson correlation coefficient is from 1 to 0.92. UO students correlation coefficient is from 0.62 to 0.95.

Conclusion

The article presented about satisfaction measurement at universities cannot express all aspects of satisfaction measurement and also can not show all informations gained by research. The negative side of this research is a smaller sample, which is determined by lower attendance of TBU students and thus the outcomes of the research has only limited explanatory power, particularly in the sample of TBU students. Even though, we can say, that UO students are more satisfied and less dissatisfied, than TBU students and also total satisfaction with subject and total satisfaction with lecturer is higher at UO, than at TBU. The biggest correlations between partial and total satisfactions (at UO) have factors such satisfaction with lectures, with content of subject and explanation of curriculum. At TBU have the highest importance factors such satisfaction with content of subject, satisfaction with following of other subjects and satisfaction with utility of subject. For the future it would be useful to include some more factors affecting total students satisfaction.

Reference

- SADÍLEK, T., 2012. *Měření spokojenosti studentů s oborem Andragogika*. Ostrava. Bakalářská práce. VŠB – Technická univerzita Ostrava, Ekonomická fakulta.
- FORNEL, J. et al., 1960. The American Customer Satisfaction Index: Nature, Purpose and Findings. *Journal of Marketing*, **60**, 7–18.
- HILL, N. and J. ALEXANDER, 2006. *The Handbook of Customer Satisfaction and Loyalty Measurement*. 3rd ed. Aldershot: Gower. ISBN 978-0-566-08744-8.
- KOZEL, R., 2006. *Moderní marketingový výzkum*. Praha: Grada Publishing. ISBN 80-247-0966-X.
- SPÁČIL, V., L. TVRDÝ and I. MARTINÍK, 2003. Hodnocení spokojenosti se studiem na EkF VŠB – TU Ostrava. *Ekonomická revue*. Ostrava: Vysoká škola báňská – Technická univerzita, **6**(4), 71–84. ISSN 1212-3951.
- WILLEMSSEN, D., 2010. *The Measurement of Customer Satisfaction: Existing Research, Comparison of Different Methods and Critical Appraisal*. GRIN Verlag. ISBN 978-3-640-83445-7.

Spokojenost studentů s oborem andragogika na Ostravské univerzitě v Ostravě a Univerzitě Tomáše Bati ve Zlíně

Předložený příspěvek se zabývá popisem metody měření spokojenosti jako jedné z marketingových technik používaných pro stanovení spokojenosti studentů se studijním programem. V příspěvku analyzujeme spokojenost studentů se studijním programem andragogika, který je nabízen na Ostravské univerzitě v Ostravě a Univerzitě Tomáše Bati ve Zlíně. V teoretické části je popsán metodologický přístup k měření spokojenosti, kdy se zaměřujeme na metodu satisfakčních pyramid, která má univerzální využití pro nejrůznější výzkumy spokojenosti. Potřebné informace byly získány z dotazníkového šetření, ve kterém jsme zkoumali spokojenost studentů s vybranými devíti faktory spokojenosti. V praktické části jsou prezentovány výpočty, je popsána celková spokojenost, Index spokojenosti a dílčí spokojenosti s významnými faktory ovlivňujícími celkovou spokojenost jako jsou spokojenost s obsahem, s odborností pedagoga, s přínosem nových poznatků a dalšími faktory. Závěrečná část příspěvku se zabývá významností jednotlivých faktorů.

Klíčová slova: marketingový výzkum, měření spokojenosti, satisfakční pyramida, vzdělávání dospělých

Kontaktní adresa:

Bc. et Bc. Tomáš Sadílek, Department of Marketing and Business, Faculty of Economics, VŠB – Technical University of Ostrava, Sokolská 33, 701 21 Ostrava 1, e-mail: tomas.sadilek.st@vsb.cz

SADÍLEK, T. Students Satisfaction with the Study Programme of Adult Education at University of Ostrava and Tomas Bata University in Zlín. *Littera Scripta*. 2012, 5(2), 117–127. ISSN 1802-503X.
