

# Innovation Support in the Work of Teachers in the Context of Further Education

**Zuzana Birknerová**

Department of Managerial Psychology  
Faculty of Management  
University of Prešov in Prešov  
Konštantínova 16  
080 01 Prešov  
Slovakia  
email: zuzana.birknerova@unipo.sk

**Mária Zahatňanská**

Department of Education  
University of Prešov  
Faculty of Humanities and Natural Sciences  
Department of Education and Psychology  
Ul. 17. novembra 1  
081 16 Prešov  
email: maria.zahatnanska@unipo.sk

© eXclusive e-JOURNAL

## Abstract

The report is aimed at the innovation support in the work of teachers in the context of further education. We are trying to learn about the contribution of further education for the innovative pedagogical practice of the elementary school teachers. We focus on the description of innovations, the innovative process in the pedagogical context, and further education of teachers. In the conclusion we interpret the results of the realized research. The interpretation of the results is elaborated in three areas – characteristics of the respondents, analysis of further education of teachers with an overview of the seminars aimed at the topic of innovation, and finally the analysis of innovations in the education of teachers.

**Key words:** Education of teachers, innovations in education, further education

---

Teaching is a profession that is characterized by the need for further education, the need to acquire new knowledge and skills and then apply them in practice (Lazarová, 2006). Teachers and educational staff are involved in the implementation of the changes in education. There are great demands on their personal and professional qualities which should be developed and consolidated through the further education of the teachers. Teachers thus embody change, and therefore they should respond to community development in all areas of human activity. For that reason there is the need to introduce changes into teaching, that is, to upgrade the teaching practice

The term innovation comes from the Latin word *innovare* with the meaning to renew, to do again, to change; in this way also the renewal of human activity and thinking. Innovation is a long term process,

---

which is certainly not a linear and with no a clear direction. It is a cyclical process (recurring) and permanent (continuous) as also the external conditions in which the innovation process occurs are continuously transformed (Novotný, 2004).

Education and training began to be influenced by the innovation in the 50th in the last century. In the educational terminology the term innovation is quite widespread, however, its definition is not clearly defined. The team of authors of Pedagogical dictionary define the term innovation in education as "the overall title for the new teaching concepts and practical measures, especially in content." (Průcha, Walterová, Mareš, 2003, p. 85). Skalková (2004, p.82) states that innovation is usually understood as "development and practical implementation of new elements into education and training systems." The aim of the innovation is the improvement of such system. Innovative schools may be then defined as schools which try to make a change within the common school. Such schools focus on personal and social development of pupils, on constructivist ways of knowledge, on integration in teaching process. Innovation is not just an idea or thought, but rather an indication of the implementation of this idea into life.

It is necessary to think about what the pedagogical innovations should be directed toward, what should be their meaning. In special literature, the following areas of education, which the innovations may be related to, appear (Skalková, 2004)

- humanization of education,
- education oriented on personality,
- democratisation of education,
- more space for self-fulfillment,
- implementation of technology into teaching process,
- the change of interaction between student and teacher,
- the change of content and objectives of education,
- new methods and ways of working (energizing).

In the article we also attend to the field of further teacher education as an essential part of educational innovation. In the literature the further education of teacher is mentioned as well as its equivalent – further education of pedagogical staff (educators, educational consultants, etc.). Pedagogical Dictionary defines further education of teachers as „education of teachers in the course of their career and it is understood as „a right and duty of teachers in their active service." (Průcha, Walterová, Mareš, 2003, p.36). Kohnová (2004, p. 59) describes the further education of teachers as:

- systematic, continuous and coordinated process related to undergraduate education and which lasts during the all the time of teacher's career,
- lifelong professional development of professional competencies of teacher and continuous personal development of teacher,
- one of the fundamental assumption of the transformation of education,
- the most effective form of balancing of content and methods of education with the rapid transformation in economic-technical and cultural-social context.

The objectives of further education of teachers are based primarily on required competencies of a teacher. The development of such competencies should encourage education. According to Lazarová (2006) the objectives related to development of teacher include:

- to improve their own skills and competencies,
- to learn in an appropriate way to participate in the events and changes in the institution,
- to contribute to the professionalism, to become more responsible and autonomous,
- to adjust personal qualification to the new or changed qualification,
- to compensate the deficiency of undergraduate education,
- to acquire new tools necessary to participate in changes and innovations, etc.

The content of further education depends on set objectives. The content of further education of teachers is very wide reflecting the cultural traditions and value system, but also reacting to changes in all fields of human activity such as art, science and research, changes in ways of life, etc. Further education vary depending on the set environment, it also becomes the means to tackle the coming changes as well as it prepares for future changes.

The educational process requires the use of innovation, experience and modern methods of work (Zahatňanská, 2009, Račková, 2008). The form of teaching activities, thus the way of the organization of education, have been changed in recent years. The offer is still more diverse and implemented in various forms. The new forms of educational activities are promoted mainly with the development of information technology. The modern forms of further education of teachers include discussion forums, e-learning, exchange programs in schools, working on projects, supervision, development of work teams, internal training conducted either by external lecturers or teachers themselves, selfstudy, etc.. (Lazarova, 2006). According to Gyurák Babel'ovej (2008) to receive the benefit of such education it is important not only to choose a suitable educational activities, but mainly to be able to consider to what extent they have been effective.

Education of adults, which includes also further education, offers a variety of forms of realization of further education. Each form has its own specifically defined objectives with the associated methods and ways of work. The most common educational form is a *lecture* and *training course*, which is associated with a short-term, one-time getting of information related to the topic. The *seminar* is a common form of teaching at high school as an addition to the lecture. It is usually used when the involvement of participants in the debate with exchanges of experience is assumed. The *course* is an individual form of education, usually consisting of several units - lessons, lectures, seminars and exercises including experiments or modern communicative technologies mostly in the subjects of science (Taylorová et al., 2006; Poráčová et al., 2005). The *training* is a form of education focusing on personal development. It is usually associated with psychological themes. The *workshop* is the organizational form of group solution of a problem. The working group exchanges opinions, seeks an optimal solution, or a statement of the problem. In studies devoted to teaching methods Ferencová, Bašistová (2008) evaluated that in education also the demonstration, workshop, brainstorming and play are actively used.

Novotný (2002) announces that the basic problem of further education of teachers include the connection between theory and practice. Therefore, it is necessary to pay attention to learning objectives focusing mainly on systematic and purposeful use of newly acquired knowledge in practice. The aim of education is that teachers implement new knowledge into their teaching practice. Model lessons and their reflexion, time for planning and long-term courses may be highly effective.

#### **Research:**

The goal of the study was to reveal the attitudes and opinions of teachers toward the possibility of their further education in relation to innovations in education as well as to find out what teachers understand by innovation in education. We focus also on courses that are offered to teachers, in which form they are

carried out, which form teachers prefer and what is the contribution of such courses for teaching practice.

### **Methods:**

The method of questionnaire was used to acquire the information concerning the situation of further education of teachers (DVU) in relation to educational innovation. Questions in the questionnaire included information on the seminars that were realized within the further education and information on innovation in education

### **Research sample:**

The target group include the teachers of primary schools. Eight primary schools of Prešov region was studied in the research. The questionnaire was distributed personally after the previous telephone agreement with the school. The questionnaire was picked-up personally. Responded filled the questionnaires voluntarily and anonymously. The research was conducted in May - July 2009. The research sample included 161 respondents (29 men and 132 women) aged 20-62 years, with the average age of 40.73 years. In the city of Prešov work 102 respondents and 59 of interviewed teachers work in the country.

Interpretation of results was divided into three parts:

- profile of respondents involved in research,
- analysis of DVU in schools and overview of courses with innovative features,
- analysis of innovations in education in the work of teachers.

The items in questionnaire were closed, semi-closed and also open to provide teachers place for their own comments to the questions.

### **Hypothesis:**

**H1:** We assume that the attitudes of teachers of primary schools toward innovations in education differ due to the length of teaching experience.

Table 1: The promotion of innovations with regard to the length of practice

The length of pedagogical practice	yes	no
<b>up to 15 rokov</b>	96,4%	3,6%
<b>over 15 rokov</b>	88,8%	11,2%

The above figures show the percentage of positive and negative responses of teachers to the question whether or not they are fans of innovations in education, from the total recorded responses. As mentioned above, teachers were divided according to the length of teaching experience into two groups - the practice of teaching up to 15 years and teaching experience over 15 years.

---

The above results show that 96% of teachers who teach less than 15 years indicated that they support innovative trends in education and only 4% of teachers are against. Similar results are also monitored with teachers with more than 15 years of experience. Innovations in education support 88% of teachers, 12% are against. Length of teaching experience, therefore, does not influence the attitudes of teachers toward innovation in the learning process. It is a very positive result because it shows that teachers tend to change and improve their work, adapt to the demands of a new era. **Hypothesis 1 was not confirmed.**

**H2:** We assume that the attitudes of teachers of primary schools toward innovations in education are different due to the place of their performance.

Table 2: The promotion of innovations with regard to the place of their performance

The place of performance of teachers	yes	no
<b>schools in city</b>	94,1%	5,9%
<b>scholls in rural areas</b>	86,6%	13,4%

The acquired results show the difference in attitudes of teachers toward innovations in terms of the place of the performance of of the interviewed teachers. Teachers working in the city show approval with innovations, 94.1% are for the innovation and only 5.9% of teachers from these schools are opposed to innovations in education. Similar results were achieved in the answers of teachers who work in rural areas - 86.6% were identified as supporters of innovations and 13.4% do not incline to the innovative efforts in education. The mentioned results may be partly biased by the differences in the number of teachers interviewed in the city (102) and village (59). In both cases there are more teachers supporting the efforts to implement innovations in education than their opponents. Neither this **2<sup>nd</sup> hypothesis was confirmed.**

The results reveal that the attitudes of teachers toward innovations in education are neither influenced by the length of teaching practice nor by the place of their performance - city or countryside. Such approach depends mainly on the teachers themselves, and on their attitudes towards innovations.

**H3:** We assume that the further education of teachers is beneficial for the pedagogical practice of the teachers.

In Tables 3 and 4 we demonstrate how the teachers perceive the benefit of seminars with innovative features for further practice as well as the reasons of their usefulness for practice.

Table 3: Contribution of seminars of further education to practice of teachers

<b>valuable</b>	91,6%
<b>unvaluable</b>	8,4%

Table 4: The reasons of usefulness of seminars to practice

<b>new ideas, methods and forms of teaching</b>	41,8%
<b>new experience, exchange of experience</b>	27,6%
<b>depending on the topic, the lecturer</b>	13,3%
<b>cooperation and contact with other teachers</b>	9,6%
<b>information about literature</b>	6,5%
<b>if it is not just a lecture</b>	4,8%

As valuable and useful seminars teachers indicated such seminars where they acquire new ideas and they learn new forms and methods of work. Such seminars are useful for them also in terms of new experiences and confrontations with other participants. The teachers evaluate the contribution of seminars in relation to the approach of lector as well as the thematic approach of the course, for some a co-operation with other teachers and the acquisition of new contacts are essential. For teachers also to acquire new information and an overview of the available literature is important. For them mainly the courses not being realized only in the way of lectures, but also including the accruing elements are useful.

8.4% of interviewed teachers indicated educational activities as unvaluable for their teaching practice. Mostly the arguments supporting their choice included that they have not enough time to apply new knowledge into practice, that nothing what they learned was useful for the practice so far, or that always the same things repeat.

Concerning the overall evaluation of benefits and usability of new experiences and information that teachers acquire at seminars of further education, we may evaluate it as clearly beneficial. According to the received data, teachers evaluate seminars as being beneficial and useful mainly in terms of acquiring new ideas, acquaintance with new methods and forms of teaching and the possibilities of transfer and exchange of new experiences. Inspiration for changes in the work teachers acquire through seminars, which are offered to them within the further education of teachers. Teachers perceive seminars positively, they gain new inspiration for teaching from seminars. We may conclude that **3<sup>rd</sup> hypothesis was confirmed**.

#### **Analysis of further education of teachers**

In the research we also observed whether the seminars focusing on innovative approaches to education are provided in schools, what forms of educational activities in terms of their implementation are performed, and which forms of educational activities are preferred by the teachers. We also pay attention to how and in what teachers perceive the benefits of these seminars for their teaching practice.

In Table 5 information about the forms of educational activities of further education within which further education is realized is presented. Table 6 show information about which forms of educational activities are requested by the teachers.

Table 5: Forms of courses attended

<b>lecture</b>	89,8%
<b>workshop</b>	53,1%
<b>discussion</b>	50,3%
<b>other form</b>	5,9%

Teachers usually attend the courses where the topics are lectured (89%). Also the learning events where the teachers are provided with the place for discussion are realized (50%), teachers may clarify the topic, exchange experience, inspiration, etc. More than half of respondents reported that they participated in seminars conducted in the form of workshop, which are great assets for the work of a teacher because teachers may try individual steps in practice, they are provided with the space for collaboration with other colleagues, etc. As other forms of further education teachers presented practical demonstrations, residence, or focusing on co-operation.

Table 6: Preferred forms of further education of teachers

<b>workshop</b>	34,5%
<b>practical demonstrations (model lessons)</b>	26,3%
<b>discussion</b>	22,8%
<b>lecture with practical demonstration</b>	9,4%
<b>I do not care</b>	7,1%
<b>lecture</b>	5,9%
<b>according to topic</b>	5,2%
<b>lecture with discussion</b>	4,8%

Results in Table 6 reveal that from all forms teachers prefer an interactive form of teaching, workshop, expressed by 34.5%. Practical modeling lessons where teachers would be shown specific way in teaching are preferred by 26.3% of teachers and discussion is preferred by 22.8% of teachers. Teachers are also interested in lectures combined with practical demonstration or discussion, or form of education that is adapted to lecture topic. Indifference on the form (I do not care) above is demonstrated by 7.1% of respondents. Considering the preferred forms, it was revealed that about half of teachers prefer forms, where the emphasis is on their own participation in the activity and the second half of the participants prefer forms of educational activities associated with their passivity.

We determined what teachers understand by the term "innovations in education", whether they try to change their work and improve, and what are the areas where they work better to promote changes, where they are not successful, and whether they have problems to implement the innovations into practice.

Table 7: Ideas of teachers about the innovations in education

<b>new methods and forms of work</b>	45,1%
<b>change in school</b>	14,5%
<b>new approaches, innovations in teaching</b>	14,2%
<b>use of technology (multi-functional plates), modern technology</b>	13,3%
<b>new method of evaluation</b>	10,8%
<b>non-traditional way of teaching</b>	10,6%
<b>project teaching</b>	8,4%
<b>progress in education</b>	6,3%
<b>change in relation teacher - student</b>	6,1%
<b>lead to independence</b>	5,2%
<b>comprehensive and systematic provision of information to teachers and school management from the field of educational process</b>	2,7%
<b>use of different tools</b>	2,6%

In Table 7 the most common answers to the question of what teachers mean by the term innovation in education are presented. Almost half of asked respondents viewed innovation as new methods and forms of work. 14.5% of teachers present the innovations as changes in the whole structure of school and a similar number of respondents specify the innovation as new approaches and new techniques in teaching. Teachers indicate as innovation in education also the use of modern technology in education (computer, internet, e-learning, multi-functional plates). A new method of evaluation is perceived as innovative by 10.8% of teachers and by the same number of teachers innovations are perceived as unconventional way of teaching. As others project teaching, progress in education, change in relation teacher – student, lead to independence, comprehensive and systematic provision of information to teachers and school management from the field of the educational process and the use of different tools are mentioned.

The above ideas of teachers about innovative progress were linked to their positive perception. Also the negative perception of innovations in education was demonstrated. The answers of teachers include for example „I am not teaching any more, I am innovating“, „the attempt of sages to speak about something I do not understand“. However, these were only few of the answers. The ideas of teachers are different but more positive evaluations of this term dominate. Teachers perceive innovations in didactic-methodology line, this means that they focus on practical asset of new changes. 97% of interviewed teachers try to change or promote their work. Only 3% of respondents are not willing to change anything, they support their answer with the words: „nobody is estimating this“. They state that they would become fans of innovations only in the case that the management of the school would somehow rate them.

Table 8: Areas of changes in the work of teacher

<b>methodology, procedures</b>	39,4%
<b>independence of students</b>	19,8%
<b>group work of students, collaboration</b>	18,5%
<b>work with computer</b>	14,8%
<b>forms of work</b>	13,7%
<b>implementation of new knowledge in practice</b>	11,6%
<b>self-education</b>	9,5%
<b>projects, problematic tasks</b>	8,7%
<b>critical thinking of students</b>	5,6%
<b>individual approach</b>	5,5%
<b>Entertaining form of teaching, varied teaching</b>	5,4%
<b>Creativity</b>	4,9%
<b>involvement of games and competitions</b>	4,8%
<b>more use of aids and teaching technique</b>	4,3%
<b>new ideas, activities of learning</b>	3,9%
<b>Motivation</b>	3,6%
<b>methods of evaluation, self-evaluation of students</b>	2,9%

<b>cross-curricular relations</b>	2,5%
<b>communication with children and parents</b>	2,2%

Most teachers try to change and improve their work mostly in the field of choice of methods and practices in teaching, this was stated by 39.4% of respondents. As indicated in Table 8, the efforts of other teachers in the terms of changes are also related to methods and forms of work in education, but are also more specified. Further efforts primarily focus on the support of students independence 19.8% and the support of the group work and cooperation 18.5%. Teachers also try to involve computer technology into teaching process using the Internet or presentations created and presented by the students 14.8%. 13.7% of respondents try to change their forms of work, to implement new knowledge into their teaching 11.6% and self-improvement 9.5%. Furthermore, the interviewed teachers reported projects, problem tasks, critical thinking of students, individual approach, entertaining form of teaching, varied learning, creativity, involvement of games and competitions, the use of tools, new ideas, motivation, methods of evaluation, cross-curricular relation, important communication with children and parents.

SCHOOL AS A PLAY – such we may identify the efforts of teachers who use experiential and entertaining form of teaching using games, competitions, supporting the creativity of students.

The results of the research may be evaluated very positively, because most teachers try to change their work in some way and what teachers try to change is in a fact the content of their further education. This fact is also confirmed by responses of the interviewed teachers who try to implement new knowledge into practice, but are willing to use new methods, project learning, to promote critical thinking of students and to use computers in teaching process. New knowledge and experience teachers acquired at the seminars of further education, therefore, this has a huge impact on the future work of teachers.

Table 9: Obstacles in effort to implement changes

<b>finance</b>	11,8%
<b>material equipment</b>	9,3%
<b>lack of time</b>	8,3%
<b>administration</b>	6,2%
<b>reluctance of students</b>	2,1%
<b>behavior of students</b>	1,9%
<b>outdated thinking of colleagues</b>	1,4%

Table 9 reveals that the most common obstacle in order to create changes in learning process that teachers feel are finance 11.8%. Furthermore, teachers indicate material equipment of class and schools, including the fact teachers must create most of teaching material – usually in their free time 9.3%. Another obstacle is lack of time, it means 45-minute lasting lesson 8.3%. This is confirmed also by the words of one of teachers "45 minutes is a short time neither to explain the individual topic, nor to try to enforce any change and explain it to students. Obstacle for teachers is also the administration (6.2%) and legislation. The reluctance of students to do anything extra, as well as the behavior of students, outdated thinking of colleagues who do not inclined to any changes make their work also more difficult.

### **Conclusion**

Innovations present a part of the operation of each system (also social) and they possess the phenomenon of change itself, which may not have only a positive outcome. Innovations themselves are perceived as positive even in education where they are hardly definable. Innovation primarily define long-term process which never ends, but it is undergoing a constant renewal. It is important that this process does not become routine and in this way lose its meaning, original intent. Dogmatic application of any idea may lead to negative or opposite result. In the process of innovation it is necessary to capture the right time for its implementation, i.e. that the external conditions are suitable for the introduction and implementation of our innovative effort. However, external conditions do not ensure that innovation will be successful. Equally important component that must have positive performance to take a change is the target group, which will work according to this change. We must, therefore, pay attention to introduce innovation not only to professional but also the general public in the clearest way with regard to its benefits and practical use. This should be applied not only in teaching practice, but in all areas where the innovative efforts are promoted.

Innovations are linked to the progress in various fields of human activity. Change or progress in one area supports the changes in other areas seemingly unrelated together. However, the field of education must be flexible in response to any developments or discoveries in all areas of human activity - cultural, social, technical, scientific and economic. Teachers are aware about the need to respond to changes in society and they encourage innovations in education. A means of coping with changes are also seminars of further education, which are very important for personal and professional development of the teaching profession. Teachers, however, need greater support from their surroundings, colleagues, management of schools, parents and pupils to enhance their efforts. If there is a lack of support from the external environment, the process of implementation of changes into education is not successful, or it is very slow. It may happen that the teachers become tired to constantly overcome external and internal barriers resulting into the development of internal barriers and that concerning their innovative efforts they just give up. If the school function properly as the initiator of changes supporting the education of teachers, the favorable climate for implementation of innovation in the school environment is developed.

### **References**

1. FERENCOVÁ, M., BAŠISTOVÁ, A. 2008. Význam hry v pedagogickom procese. In Uplatnenie inovatívnych metód vo výučbe manažérskych a ekonomických disciplín. Košice : VÚSI, s.r.o., 2008, s. 4-12. ISBN 978-80-89338-30-0.
  2. GBUROVÁ, J., MOROVSKÁ, I. 2010. Vybrané inovatívne trendy v marketingu. In Zborník EDAMBA 2010. Bratislava : Ekonóm, EU v Bratislave, 2010. s. 118-124. ISBN 978-80-225-2972-3.
-

3. GYURÁK BABELOVÁ, Z. 2008. Vzdelávejte lidi efektivně. In *Moderní řízení*. 2008, č. 12, s. 42-43. ISSN 0026-8720.
  4. GYURÁK BABELOVÁ, Z., VAŇOVÁ, J. 2008. Experimental learning in management education. In *Materials Science and Technology* [online]. roč. 8, č. 3, 2008. ISSN 1335-9053.
  5. JURKOVÁ, J. 2007. Rozvoj ľudských zdrojov v kontexte systému vzdelávania v podmienkach Slovenskej republiky. In: *Znalostní ekonomika - trendy rozvoje vzdělávání, vědy a praxe*. Luhačovice : Z - studio Zlín, 2007. s. 51. ISBN 978-80-7318-646-6.
  6. KOHNOVÁ, J. 2004. Další vzdělávání učitelů a jejich profesní rozvoj. Praha : Univerzita Karlova, 2004. 181 s. ISBN 80-7290-148-6.
  7. LAZAROVÁ, B. a kol. 2006. Cesty dalšího vzdělávání učitelů. Brno : Paido, 2006. 232s. ISBN 80-7315-114-6.
  8. NOVOTNÝ, P. 2002. Konstruktivismus v dalším vzdělávání učitelů. In Švec, V. (ed). *Profesní růst učitele*. Brno : Konvoj, 2002, s. 217-219. ISBN 80-7302-039-4.
  9. NOVOTNÝ, P. 2004. Inovace v práci učitele: k teoretickému rámci problematiky. In SPFFBU U9, Brno : MU, 2004. s. 101-110.
  10. PORÁČOVÁ, J., TAYLOROVÁ, B., ŠUTIÁKOVÁ, I., LORINSAKOVÁ, D. 2005. Anwendung von PC- Technologien im Unterricht einiger naturwissenschaftlichen Fächer. 8. Europäischer Chemielehrerkongress, Eisenstadt, Austria, s.80.
  11. PRŮCHA, J., WALTEROVÁ, E., MAREŠ, J. 2003. *Pedagogický slovník*. Praha : Portál, 2003. 322 s. ISBN 80-7178-772-8.
  12. RAČKOVÁ, M. 2008. Educator in today's schol. In *Učitel' a žiak v súčasnej škole*. Brno : 2008, s. 280-283. ISBN 978-80-210-4752-5.
  13. SKALKOVÁ, J. 2004. *Pedagogika a výzvy nové doby*. Brno : Paido, 2004. 158 s. ISBN 80-7315-060-3.
  14. TAYLOROVÁ, B., PORÁČOVÁ, J., GANAJOVÁ, M., ŠUTIÁKOVÁ, I. 2006. Využitie školského experimentu na hodinách biológie. Prešov : PU v Prešove, FHPV PU, ISBN 80-8068-462-6. s. 87-90.
  15. VÁVROVÁ, S. 2009. Význam emoční inteligence pro rozvoj kompetencí sociálního pedagoga. In *Sociální pedagogika ve střední Evropě, současný stav a perspektivy*. Brno : IMS, 2009, s. 600-608. ISBN 978-80-87182-08-6.
  16. ZAHATŇANSKÁ, M. 2009. Zážitkové učenie a jeho možnosti v pregraduálnej príprave. In *Rozvoj a perspektivy pedagogiky a vzdelávania učiteľ'ov*. Prešov : FHPVPU, 2009. s. 164-168. ISBN 978-80-555-0064-5.
-