### Original paper

## Jelena D. Teodorović<sup>1</sup>

Faculty of Education in Jagodina, University of Kragujevac, Jagodina, Serbia



Vladeta D. Milin, Milja B. Vujačić

Institute for Educational Research, Belgrade, Serbia

Paper received: December 15<sup>th</sup> 2015 Paper accepted: March 7<sup>th</sup> 2015 Article Published: May 5<sup>th</sup> 2016

doi: 10.5937/inovacije1601046T

# Programmes of professional development of teachers: estimated usefulness and educational effects

### **Extended summary**

System of professional development in Serbia represents a key mechanism for improving professional competencies of teachers. Special place in this system belongs to the programmes of professional development. Estimation of their effects is mainly based on studying perceptions of teachers and their satisfaction with the programmes of professional development, so there are thorough data about other significant factors of the programme missing (knowledge and skills of teachers, change of plans in praxis, students' achievements, etc.).

In this paper, we have presented a part of the thorough research of educational effectiveness Komenius IEEPS realised in 2014/2015 school year, in which 125 primary schools of Serbia participated, 5537 students from 240 classes, their parents and 2500 teachers. The aim of the research represented in this text is determining connection of perception o teachers about the usefulness of the programme of professional development and achievements of students. This is why we have formed three sub samples of teachers who attended at least on filed of professional development and who taught eight graders, as well as the sub sample of the class in which these teachers teach. In this way we have selected: (1) mathematical sample represented by the Mathematics teachers (N=173) and classes they teach (N=203); (2) language sample represented by the teachers of Serbian language (N=174) and classes they teach (N=194) and (3) combined sample, consisting of teachers of Biology, History, Geography, Physics and Chemistry (N=678) and classes they teach (N=221). Teacher's estimations of the usefulness of certain programme o professional development have been gained by the application of the questionnaire fro teachers constructed for the needs of Komenijs IEEPS research, and

l jelenat@gwu.edu

achievements of students they teach have been represented by the results the students have achieved at the mock final exam, which included Mathematics, Serbian and Combined tests.

Given data were presented within four units: attending the course of professional development, estimation of usefulness of the programme of professional development, achievements of students at the Mock and Final tests and connection of estimation of usefulness of the programme of professional development, achievements of students at the Mock and Final tests. Results have shown that Mathematics teachers in eight from eleven examined fields of professional development in significantly lesser extent attend the courses of professional development in comparison to teachers of Serbian and the combined sample. It has been determined that teachers have estimated programmes of professional development as "mainly useful" for their work in teaching. Given results show that students had the weakest result in the Mathematics Mock Test, then Serbian Test and that the best results were in the combined test. Nevertheless, it has been determined that there is no connection between the quality of the programme of professional development measured by teachers' perceptions and students' achievements measured by the results at the Mock and Final Exam.

The authors interpret the given results in the context of the existing systmatial solutions and different organisational and conceptual boundaries, which follow the existing system of the professional development of Serbia. The authors have a review on the choice of the way of choosing the programme o professional development of teachers, problematic teacher's relation towards valuing usefulness of the programme they have attended, particularly discuss reasons for disaccorded between these estimations of teachers and achievements of students at the Mock and Final test. In the concluding part of the paper, the authors state two categories of problems – characteristics of the system of professional development and the context within which this system functions. Stressing the significance of the following of the application of the learned materials, the authors point at the necessity of doing additional research, which would widen the scope of the research topic that knowledge in this field should be fulfilled?

**Key words**: programmes of professional development of teachers, students' achievements, mock and final tests, suggestions for educational policy.

#### References

- Creemers, B. P. M. & Kyriakides, L. (2008). The dynamics of educational effectiveness: a contribution to policy, practice and theory in contemporary schools. London: Routledge.
- Džinović, V. (2009). Izazovi evaluacije seminara na osnovu iskustva nastavnika. U: Komlenović, D., Malinić, D. i Gašić-Pavišić, S. (prir.). Kvalitet i efikasnost nastave (321–333). Beograd: Institut za pedagoška istraživanja.
- Hattie, J. A. C. (2009). Visible learning. London: Routledge.
- Muijs, D. & Reynolds, D. (2000). School effectiveness and teacher effectiveness in mathematics: Some preliminary findings from the evaluation of the Mathematics Enhancement Programme (Primary). School Effectiveness and School Improvement, 11 (3), 273–303.
- Muijs, D. & Reynolds, D. (2010). Effective teaching: Research and practice. London: Pol Chapman.

- OECD (2009). Creating effective teaching and learning environments: First results from TALIS. Paris: OECD.
- Pravilnik o stalnom stručnom usavršavanju nastavika, vaspitača i stručnih saradnika (2015). *Prosvetni glasnik 86/2015*. Beograd: Službeni glasnik RS.
- Sanders, W. L. & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center.
- Stanković, D. i Vujačić, M. (2011). Praćenje i vrednovanje programa stručnog usavršavanja nastavnika priručnik za autore i realizatore programa. Beograd: Institut za pedagoška istraživanja.
- Stanković, D. (2011). Sistem profesionalnog razvoja nastavnika u Srbiji: glavne teme i pravci razvoja. U: Vonta, T. i Ševkušić, S. (ur.). *Izzivi in usmeritve profesionalnega razvoja učiteljev/ Izazovi i usmerenja profesionalnog razvoja učitelja* (87–101). Ljubljana Beograd: Pedagoški inštitut, Institut za pedagoška istraživanja.
- Stanković, D., Đerić, I. i Milin, V. (2013). Pravci unapređivanja stručnog usavršavanja nastavnika u Srbiji: perspektiva nastavnika osnovnih škola. *Zbornik Instituta za pedagoška istraživanja*, 45 (1), 86–107.
- Teodorovic, J. (2011). Classroom and school factors related to student achievement: what works for students?. *School Effectiveness and School Improvement*, *22* (2), 215–236.
- Teodorovic, J. (2012). Student background factors influencing student achievement in Serbia, *Educational Studies*, 38 (1), 89–110.
- Wright, S. P., Horn, S. P. & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 57–67.