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School-based mentoring of students–teachers in the practice and beginning teachers[1]

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Abstract: *Teacher education is a very important field of university work because the quality of educational system mostly depends on teacher qualification. Responsibility of higher education institutions for teacher education is great, especially in the first phase of teacher education – initial education. Attention on the school practice of student-future teacher and on mentoring is increasing. The school-based mentoring of students-teachers in school practice and of beginning teachers in induction period is considered in the paper. Some conditions of effective mentoring are selected; these conditions are the criteria for teacher-mentor selection, too. Education of teachers in the field of technics and informatics directed selection of comparison between mentoring of students-future teachers and mentoring of beginning teachers. It is necessary to mentoring school and teaching practice (both for the student-teacher and beginning teacher), not only to supervising. Then, the role of teacher-mentor is very complex and requires adequate preparation and professional development of mentors.*

Keywords: *mentoring, school-based practice, student-teacher, novice (beginning) teacher, initial education, induction period*

1. TEACHER PROFESSIONAL DEVELOPMENT AND EDUCATION

Teacher education is a continual process and a constituent part of teacher lifelong learning. All phases (stages) of teacher education in Serbia (initial education realized at the university, induction period and in-service teacher education along the whole teachers' work life) are affected by the actual social and educational needs in the country, systematic researches and teachers' professional development monitoring, accepted European tendencies in high school education, and the goals of the Serbian school system development (Bjekić & Dragićević, 2008). These are the framework for education of teachers of technics and informatics courses, too. In initial teacher education, the student-teacher's school-based practice and teacher-mentor work with mentees are becoming in the focus. Nowdays, mentoring as special way of teacher's work with students-teachers or

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beginning teachers, is considered from both the practical and theoretical aspects (Ambrosetti, 2014; Buhberger, 2015; Franke & Dahlgren, 1996; Hudson, 2013; Stanojević, 2014; Wilkins, & Okrasinski, 2015).

1.1. Teacher Education

Current european educational systems are established the clear framework for teacher education. School system in Finland, as one of the most efficient school systems, defined master level as obligatory level of teacher education for teaching in primary and secondary schools (Nieme, 2008; Bjekić & Dragićević, 2008: 36). Today, in the most european countries, teacher five years initial education, induction period from 1 to 3 years in different countries (1 years in Serbia, Estonia, Eisenschmidt; 3 years in Finland, Nieme, 2008, according to Bjekić & Dragićević, 2008) and continual in-service education and longlife learning are mandatory.

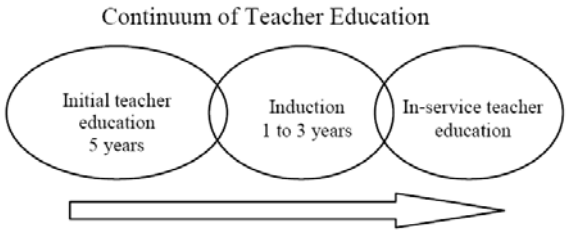

Figure 1. *Continuum of teacher education (Bjekić & Dragićević, 2008: 36)*

Although academicians research all levels of teacher education (Karras & Wolhuter, 2010),, there aren't enough researches of education of subject teachers in different teaching fields.

1.2. Education of teacher of technics and informatics courses

Additionally to the common framework for education of teachers in Serbia, the framework of Serbian technical-technological teachers' education is determinated by the following: teachers' education systems in Europe, development of technology, technical sciences and practice, and characteristics and needs of Serbian school system. All these are also the elements of the professionalization of teachers' work (Bjekić & Dragićević, 2008).

Today, future teachers of the course Technical and informatic's education in the second cycle of primary comprehensive education are prepared at 3 universities in Serbia: the Faculty of technical sciences in Cacak – University of Kragujevac and Educational faculty in Vranje – University of Nis realize integrated academic curricula (5 years, 300 ESPB), the Technical faculty „Mihajlo Pupin" in Zrenjanin – University of Novi Sad realizes sequentional curriculum (4+1 years, 240+60 ESPB).

2. THE ROLE OF TEACHER–MENTOR IN TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT

The quality of teacher education is one of the basis of education quality. Very important element of teacher education is teaching practice (practical teaching) or student–teacher's and beginning teacher's practice in regular school environment and teaching. Most of researchers of teaching practice argue that „it is a culminating experience in teacher preparation, as it provides opportunity to beginning teachers to become socialized into the teaching profession" (Furlong et al., 1988, according to Maphalala, 2013).

Now, teaching school practice becomes a most important part of initial teacher education and of induction period (or stage) around the world, and in Serbia, too.

Initial teacher education is the period (or stage) of formal education at the university. The functions of school practice in teacher initial education are: to enable students to develop a comprehensive insight into the teacher work, to test their skills in the realistic and security educational settings in cooperation with teacher–mentor, to get a formative feedback from mentors.

Induction stage is the form of novice (beginning) teacher education in their first years of teaching; induction stage is bridging the gap between initial teacher education and the continuous professional development phase. The main functions of induction stage of teachers' professional development are providing support and sistematicaly guiding of novice teachers. Three key levels of support are: personal development support, social development support and professional development support (Eisenschmidt, 2006, according to Zlatić, Marinković & Vučetić, 2014).

Programmes of beginning teachers induction to work support the novice teacher to develop own experience and to adapt in realistic school context. There are two kinds of support: formal support – novice teachers have to complet special induction programme as mandatory (obligatory) precondition for the licence; nonformal support – novice teachers have a chance to participate in the induction programme, but it is optional (Zlatic et al., 2014).

School–based mentoring is recognized as on of the basic support system. Mentor is crucial person in the process of socialization of novice teachers in school context and their professional development (Feiman-Nemser, 2001). Some researchers confirmed that the mentoring can to accelerate professional development and provide emotional support for new members of school comunity (Wang & Odell, 2002).

2.1. Mentoring in teacher education

Student–teacher's and beginning teacher's practice are supported by the mentoring and mentor collaboration. The terms „mentors" (collaborating practicing teachers who support beginning teachers or students–teachers to teaching) and „mentees" (beginning teachers or students–teachers who are supported in the real teaching by mentors) have the clearful meaning on English, but on Serbian there isn't specific term for the persons who are supported by mentors. Than, we describe the group of mentees in Serbian on the following way: students–teachers and beginners–teachers who are mentored by the mentors.

Evidence (results of scientific researhes, action researches, reports and everydays evidence) suggests that mentoring improves the quality of teaching. One report of investigation emphasized that „70% teachers who receive mentoring at least once a week beleive that their instructional skills have improved…" (NFIE, 1999). Mentoring is a way to change the teachers-mentors, too. Some of the mentors in this study thought that all of them who were mentors changed radically; classroom management ckills changed; the relationship with the other teachers in the same area was changed; the skills for working with students in the classom were changed (NFIE, 1999).

Some authors considered the mentoring as a process of developing „relationship between the mentor and mentee, which in turn provides the underpinning for the growth of the mentee's skills; thus in mentoring, the relationship becomes central to the interactions that occur" (Ambroseti, 2010: 30). But, it is very important to recognize mentoring as a holistic

process which includes three components: relationship, developmental needs and contextual elements (Ambrosetti, 2010).

Hudson (2007) emphasized that mentoring can develop teaching practices as it provides opportunities for mentors and mentees to engage in pedagogical discourse and reflective thinking.

Wilkins and Okrasinski (2015) explored the student teachers perspectives „about induction and mentoring programmes, and how teacher education programmes could contribute to a broader continuum of supports that span from preservice to inservice teaching“ (Wuilkins & Okrasinski, 2015: 299). Results suggested that student teachers have limited comfort with and awareness of induction programmes, including novice teacher supports. Levels of understanding utilizing a new induction continuum theory are described: limited, basic, emerging, and knowledgeable.

Consideration that „the use of mentoring has nowadays become a predominant practice for the professional placement component of pre-service teacher education programs“ Ambroseti (2010: 30), is the basis for nowdays approaches toward the mentoring as very important component of teachers' induction stage.

2.2. Teachers-mentors

Mentors should be required to be „not only supportive but pro-active trainers demonstrating their qualities as reflective practitioners as well as encouraging reflection in their beginning teacher charges“ (Turner, 1993: 41). The role of mentors–teachers is crucial in the students–teachers growth and development, too (Maphalala, 2013).

Who is a mentor or mentor–teacher ? „Mentors–teachers as practicing professionals, are aware of current issues in education, and they are uniquely positioned to help beginning teachers or student teachers to navigate the demands of the practice, particularly in matters of curriculum and classroom management. Mentees will look up to their mentors for support through a period that is frequently stressful both emotionally and physically“ (Handbook for PDPP 2010-2011, according to Maphalala). The school-based mentors (teacher-mentor) of pre-service teachers „needs to nurture, advise, guide, encourage and facilitate authentic learning experiences for developmental growth“ (Le Cornu, 2005, according to Hudson, 2013: 30).

Hudson (2007) developed five-factors model for mentoring in teaching:

- personal attributes: mentors need to display personal attributes that facilitate a supportive learning environment and support development of positive attitudes and confidence in the mentees);
- system requirements: framework for regulating the quality of teaching practices (curriculum documents, systemic aims, school policies, school directives);
- pedagogical knowledge: mentors need to have adequate pedagogical knowledge and to articulate pedagogical knowledge for the range of teaching experiences that promote effective learning;
- modelling: mentor's modelling of teaching practice;
- feedback: mentors give a feedback to mentees in relation to the outcomes for producing effective teaching, and encourage mentees to think critically about their practices.

Rowley (1999) has identified six qualities of the good mentor: commitment to the role of mentoring; acceptance of the beginning teacher or student-teacher; development of the skills to providing instructional support; effectiveness in different interpersonal context; a model of a continous learner; communicates hope and optimism.

What are the (minimum) requirements for teachers–mentors?

In the New York City public schools the minimum preferred requirements are: five years of teaching in public school, mentor's demonstration of mastery of pedagogical and subject matter skills, evidence of excellent interpersonal skills, commitment to participate in professional development (NYS).

Minimum requirements for teacher to mentoring beginning teachers and students–teachers on school–based practice in Serbia are not explicitly defined. There are significant differences between selection of the mentors for beginning teachers (it is often determinated by the school human resources), and mentors for students on the school-based practice. The most commonly used criteria for the selection of mentors for students are the following: adequate education (defined in the school legislative, rule guide on the types of teacher education for some subjects), licence for teaching, minimum of five years teaching experience in the courses, continual in-service education, development of the programmes and activities of the in-service education, teaching results, training for mentoring, reputation in school collective, progression and promotion at work.

2.3. Specificities of mentoring students on school-based pactice and beginning teachers

Mentoring of preservice teachers (students–teachers) and mentoring of beggining teachers (novice teachers) is based on the same goals: to empowering mentees to be effective teachers. But, preservice teachers as mentees realize school-based practice on distance to their autonomous and real teaching, and beggining teachers have real context of their professional activities and they don't have distance to real teaching.

Mentoring of preservice teacher is collaborative process involving the student, university members (teacher educators) and the cooperating teachers–mentors (Campbell, & Brummet, 2007).

Mentoring of novice teachers is focused on their activities in the school. Although support in school was the basic, sometimes only one model of the support to novice teachers, nowdays the most of european countries develop organized connection between the school and university to support mentoring of novice teachers and support novice teachers (Eisenschmidt, Oder, & Reiska, 2013).

In Serbia focus is moving to the cooperation of schools and centres for teachers professional development, and cooperation with the other educational institutions. But, there aren't yet organized university support to mentoring of novice teachers.

3. INSTEAD CONCLUSION: COMPARISON OF MENTORING

The elements of Technics and informatics techers' mentoring of students–teachers and novice teachers are compared (Table 1).

Table 1. *Mentoring activities in school-based practice for students-teachers and novice teachers*

Mentoring of students-teachers (part of initial teacher education)	Type of activities	Mentoring of novice teachers (induction period)
Mentoring in the mentor's working place, student is a guest in the school	The place of mentoring	Mentoring in the novice-teacher's and mentor's school, at their common working place
Preparation programme or operative plan of school-based practice (activities, timing, tasks etc.)	Planning	Planning of instruction preparation, class preparation
Student participate and observe all mentor's activities: classes and courses; special types of classes; non-teaching activities in school and local comunity; mentor's activities in the school competition and manifestation.	Mentee activities	Novice teacher activities in regular classes as autonomous teacher Novice teacher observation of selected mentor's classes Participation in all activities in the school as school-workers
In real classroom sometimes, with mentor presence on each class	Classsroom management	In real classroom everyday, sometimes with mentor presence (mentor and mentee in the classroom)
Mentor cooperate with student and university staff responsible for practice	Mentor – colla-borative partner	Mentor cooperate with mentee and school management and administration
Direct communication between mentor and student-teacher, between mentor and university coordinator of practice	Communication	Direct and everyday communication between novice teacher and mentor, school staff
Student-teacher prepare special evidence in Practice diary, special template for tasks Mentor's reports of student-teacher practicing	Evidence	Novice teacher prepare regular evidence and school documentation Mentor's report
Additional support from university teachers to prepare practice	Engagement of university staff	No
E-course SCHOOL PRACTICE in FTN Moolde system for student/teachers e-communication between mentees, mentors, university teaching staff	e-support	e-communication and correspondence between mentors and mentees
After every student-teacher activities in school Mentor's and student-teacher's conversation before and after every student activities	Feedback and reflection	Everyday conversation, consultation between mentor and novice teacher Continual feedback from mentors

Feedback from university teachers		
Student-teacher report to the university teachers and mentor	Report	Novice teacher's report to the school management and mentor
Mentor's report to the university teachers		Mentor's report to the school management, state licence commission

As an example of mentoring of students, mentoring of school-based practice of students–future subject teachers of Technics and Informatics is presented. Integrated curriculum of Technics and informatics at the Faculty of Technical Sciences in Čačak is five years curriculum with 300 ESBP. The students can realize proffesional school practice in 6th and 10th semesters, and they can get 11 ESPB for practice; they have some practical teching activities and practical tasks in the other courses, too.

Teachers–mentors of students in initial teacher education programmes Integrated curriculum of Technics and informatics (at the Faculty of Technical Sciences in Čačak) are the subject teachers in the primary compulsory educaton and secondary education. In the primary comprehensive schools, in second cycle, teachers–mentors have a licence for obligatory course Technics and Informatics education; they fulfill the other conditions, too (see 2.2). In the secondary school, mentors are the teachers for the course Computing and Informatics, the conditions for mentoring are similar. Faculty of technical sciences cooperate with 35-40 teachers-mentors in one year.

Mentoring of students–future teachers of technics and informatics is complicated additionally because the teaching field is complex and interdisciplinary (but, it isn't the subject of this paper). The comparison of the activities of teachers–mentors and students–mentees, and teachers–mentors and novice teachers as mentees is based on the analyses of the specificities of teacher professional and formative competencies.

The school-based practice in initial teacher education, and activities in induction period for beginning teachers, become an important topic for planning and evaluating teacher education in Serbia. Mentoring of students–teachers and beginning teachers is the basis of the practice quality; therefore, it is necessary to select and educate mentors carefully.

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