Effects of professional activities on the teachers’ communication competences development

Dragana Bjekic, PhD (psychology), associate professor
Technical Faculty, Cacak, Serbia
Lidija Zlatić, MA of psychology, assistant,
Faculty of Teacher Education, Uzice, Serbia

Summary:

The basic professional competences of teachers are: educational competence, program competence and communication competence. The paper investigates formative impact of teacher’s professional dealing with the communication competences development of secondary (high) school teachers. Indicators of communication competence are: interaction involvement, conflict resolution style and team-work attitudes.

There are two parallel samples: one group consists of 60 teachers of different professional education who work in the secondary school teaching process (engineers, economists, lawyers, biologist, psychologist, philologist etc.), and a parallel group consists of 60 subjects of the same profession teachers, but they work in other professional domains (not in teaching).

Examples of the particular results includes the following: engineers in teaching and engineers out of teaching process demonstrate the similar communication characteristics (most of the indicators are similar), and very rarely differences: teachers (professionals in teaching process) choose the indulgence style of conflict resolution frequently than non-teachers. The conclusion is that teaching work doesn’t make spontaneous socialization of communication competence at the communication level formative to more effective teaching interaction. It is necessary to teach teachers’ communication skills both at the initial education level for the teaching work, and continually in the professional domain.

Key words: teacher’s vocational/professional development, communication competences, interaction involvement, team-work attitudes, conflict resolution style.

1. TEACHERS’ VOCATIONAL DEVELOPMENT

Teachers’ vocational (professional) development is a lifelong process. It goes through several steps and requires some profession decisions – beginning with the child’s fantasy about being a primary school teacher similar to the teacher the child meets, over high school selection and the teacher faculty selection, to the employment within the school system.

Teachers’ vocational development consists of the improvement of the teachers’ awareness about: what he/she does, how he/she does it, how he/she can improve professional dealing? Vocational development of teachers should provide relevant and formative impact of teacher professional skills, knowledge and abilities on the students’ development as well as on the realization of teachers’ potentials in their professional engagement. Teacher profession is the profession of specific educational services. Considering that characteristic, the teachers’ vocational/professional development is the sequences of chosen activities which increase the teacher’s professionalism in educational/educational interaction.

The two different types of teachers realize teaching/instruction process in the secondary (high) schools in Serbia: some of them finished their education process at the university departments of teachers’ education, some of them did not graduate at the university
departments of teachers’ education. Especially at the secondary vocational schools, a lot of teachers finished professional studies of the electric engineering, economics and the other non-teacher professions.

The entry of the professionals from a certain profession into the teaching process determines the new profession: they become the teachers of the specific teaching domains; they are not representatives of some profession in teaching.

Can the professionals of different profiles adapt themselves to demands of the teaching process spontaneously using only their experiences or should they be instructed for the teaching professional engagement by systematic and organized educational process?

In Serbia traditional approach to teacher education is still present though not as a dominant approach. According to traditional approach, it is important, and enough, that teacher knows the contents and structure of scientific achievements from which subject contents is derived in order to be qualified to work in a school and to educate students. Current trends of school system development modify this approach of teacher education according to the confirmed empirical results and the theories of professional development.

2. TEACHERS’ COMPETENCES

How we can describe a competent teacher? Professional competences are the system of knowledge, skills, abilities and motivational disposition which provide the effective realization of the professional teaching activities. Teachers’ professional competences are determined by the social-interaction characteristics of the instructional process.

The investigators agree about differentiation of the educational and program teacher competences. But, they don’t agree about the status of the communication competence: is it a different competence, is it the third teacher’s professional competence, and is it the part of the educational and/or program competences? According to the continuality of the teacher’s professional/vocational development, the teacher’s professional improvement means the development of three fundamental professional competences: (1) educational competences, (2) program (content) competences and (3) communication competences.

3. COMMUNICATION COMPETENCE

Teachers’ professional action is the component of the sociointeractive procedures of education realization. Since the teaching process is an interactive category, the conditions of effective social interaction are at the same time the conditions of the effective teaching process. Communication is the most obvious manifestation of the social interaction. Thus, the effectiveness of education in the school situations is determined by the quality of the communication process.

Teacher professional action is a dimension of educational process of teaching, so the frames of educational communicology are to be applied. Also, it is a dimension of the teacher’s job, thus the business communicology rules should be applied.

Educational communicology formulates the following principles of the teachers’ communication: mutual respect and esteem of students (the actors of education situation); arousing students to communicate, communication process reversibility; awareness of the communication activities and means repertoire; awareness of the communication behaviour and the manner of the changing (Sevkusic, 1995; Bjekic, 1999: 231.). Business communicology formulates the following communication principles of teachers’ communication: communication process reversibility; communicator flexibility; self-esteem, esteem of the communication partner and situation; team work, continual learning of the communication skills (Adler & Emhorst, 2004; Mandic, 1996; Bjekic, 1999).
Developed empirical and frequent experimental investigations of the professional dealing and communication competences confirmed the following: there is the causal link between the learning and training of adequate communication behaviours, and the effectiveness in professional dealing (Bjekic, 1999; Rubin et al. 2004).

The teachers with developed communication competences are more effective in all segments of the teaching process. They have skills to model and manage teaching communication (to regulate the interaction and control social situations, define and change the aims of communication and teaching conversation, etc.).

**Communication competent teacher is:**
- adaptable and flexible;
- involved in the conversation – he/she manifests the involvement in conversation by behavioral manifestations (gests, visual direction), and by cognitive activities (concluding, repeating key sentences, paraphrasing);
- he/she has skills to manage conversation (to regulate interaction and control social situations, define and change the aims of the conversation);
- considers the social relations and make a plan of the engagement;
- he/she has developed empathy;
- he/she is effective in the communication process – sustain the aims of conversation and personal aims;
- he/she has expectations coordinated to the situation;
- he/she is ready to team work;
- he/she is learning continually about communication process, and is gaining insights about communication situation; he/she is aware of his/her own behaviour;
- continually develop the communication skills, train and test messages exchange;
- continually master the use of different communication means (the means of the ICT in teaching, increasing the teachers’ informatics literacy, dealing with PC as the functional teaching means to demonstrate and investigate technical processes and phenomena).

Communication competence is considered as a person’s ability to choose communication behaviour which is suitable to achieve the aim of the social relation. Communication competence integrates the two dimensions, cognitive and behavioral, and the basic communication skills (cognitive skills and behavioral skills). Keatlen Reardon (1998: 76) considers the cognitive dimension of communication competence as a broad concept. Cognitive dimension consists of the awareness process and cognitive processing of information. Behavioral dimension indicates different manifestations of communication competence (fig. 1).
Roloff and Kellermann (1984) believe that the social cognitive processes are important for the planning and assessing communication behaviour. They investigated the impact of the interpersonal awareness and social knowledge to the communication competences assessment. Interpersonal awareness is the level at which a person is paying attention to other people’s and his/her own communication behaviour during interaction and how that person responds to what he/she is observing.

Interaction involvement is the characteristic of the person who makes the personal interaction with the other person. It is one of the communication competences’ manifestations. Basically, it is behavioral communication skills (Reardon, 1998: 83). But, it also includes interpersonal awareness (cognitive skills of communication competences) and integrates it with the other behaviour in direct communication (behavioral skills).


Interaction involvement is complex concept: it is “the extent to which an individual participates with another in conversation.” (Cegala et al. 1982: 229). Highly involved people integrate feelings, thoughts and experiences with the ongoing interaction; their consciousness is directed toward self, others and conversation topic; their speech can be marked as consistency and understanding; they have focus on the message meanings and importance; they are more effective to take information.

Investigation of the interaction involvement of the technique/engineering university students (students of the electrical engineering and the students – prospective technical teachers or teachers of informatics), shows the absence of difference among the electrical engineering students and prospective technical teachers in the initial stage of their professional education; besides, the twenty years old adolescents are involved in the conversation interaction moderately (Zlatic & Bjekic, 2006).

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Radovanovic (1990) compared empathy of the active teachers of social teaching disciplines and empathy of the administrators without teaching process (economist, lawyers, etc.). Results suggested the following: teachers’ empathy style is not sufficient; the administrator’s group has the more developed pro-social components of the empathy. These results require the improvement of the teachers’ empathy reagibility.

Education and teaching process consist of communication among the group members and communication between groups. The special conditions of teachers work are the skills and strategy of team work, and ability to organize students’ team-work in the classroom.

The skills of the nonviolent communication and conflict resolving are the components of the teachers’ communication competences. The teacher should be mediator in social interaction. He is interested in constructive conflict resolving and increasing awareness of the strategy of resolving interpersonal conflicts. There are four dimensions of the resolving interpersonal conflict styles (Rahim): integration, domination, negotiating and indulgence (the first Rahim version differed the compromise stype, too). Teachers resolve conflict differently, according to their personal characteristics. To improve student development in school, it is important to improve teachers’ abilities to make integrative or compromise strategy of resolving conflicts and to teach students how to apply these strategies.

4. ORGANIZATION OF RESEARCH

Generally, the secondary school teachers of vocational courses in Serbia school system did not graduate at university departments of teacher education and they are not systematically educated for the teachers’ profession. Is it possible to compensate for weak points in prior education (non-teachers’ education) by the spontaneous professional socialization within teaching process?

The research compares the levels of development of the communication competences aspects of the secondary school teachers and the same profiles out of teaching process.

The research aim is to define formative impact of professional development in teaching process on the communication competences development, according to the effect of work engagement on the communication competences improvement.

Variables:
- Educational-demographic variables: working position (teaching or non-teaching work engagement), the type of education; years of work;
- Psychological variables:
  - Interaction involvement - characteristic of the person who makes the personal interaction with the other person (the manner of participation with another in conversation); it consists of three components:
    - attentiveness – awareness of communication behaviour of the other person in interaction process (awareness of the signs in social environment);
    - perceptiveness – knowledge of the meanings which person contribute to owner behaviour and behaviour of communication actors based on listening and perceiving;
    - responsiveness (cognitive responsiveness) – tendency to react mentally on the social circumstances and adapt by knowing what to say and when to say it (Cegala et al. 1982: 233);
  - Conflict solution style – dominant manner to resolve interpersonal conflict; Rahim (1983) differed five conflict resolution styles and created instrument to measure styles (ROCI-II); Pokrajac and Kardum (1992) confirmed four conflict resolution styles: integration, dominance, negotiating and indulgence;
o **Team work attitudes** – attitudes to choose and apply team work; there are nine components of team work attitudes: reason to beginning team work (the sign T1 in the text), preference behaviour in the team meeting (T2), response to conflict (T3), response to team working difficulties (T4), necessary conditions to resolving team problems (T5), the method of team formation (T6), leader behaviour (T7), the importance of some components of team decision making (T8), and the personal reasons to join the team work (T9).

The general hypothesis is the following: secondary school teachers’ professional engagement as the spontaneous socialization factor can make formative impact on the development of the properties and behaviour which are important for teaching effectiveness. The following specific assumptions are based on this general assumption: The teachers without teachers’ education manifest higher level of interaction involvement in conversation, they apply more constructive strategies of conflict resolving and their attitudes and readiness for team work are more positive than those of the professionals of the same profiles out of teaching process.

Research instruments:
- **SDO inventory** – Inventory of socio-demographic and educational characteristics;
- **IIS** – Interaction involvement scale (Cegala, 1981; Cegala et al. 1982; Rubin et al. 2004) constructed to assess the aspects of interaction involvement (A, P, R). The self-assessment scale consists of the 18 items to assess owner interaction involvement – owner behaviour and emotion in conversation process. The five-level scale is used in the investigation.
- **ROCI II** – Rahim organizational conflict inventory II (Rahim 1983, according to Rahim, 2001: 35; Pokrajac & Kardum., 1992), used with the population in Croatia, measures independent dimensions of interpersonal conflict managing styles: integration, negotiating, domination, indulgence. It consists of 27 items for self-assessment of styles of managing interpersonal conflicts.
- **Team scale** – the self-assessment scale to assess the following aspects of team work: the manner of decision making in team; team conflict and resolving team working problems, team leader’s roles; motivation for team participation. The scale consists of 36 items.

For data processing, measures of descriptive statistics and ANOVA were used. There are two parallel samples: one group consists of 60 teachers - professionals of different professional domains who work in the secondary school teaching process (engineers, economists, lawyers, biologist, psychologist, philologist, technologist etc.), and a parallel group consists of 60 nonteachers - subjects of the same professions, but they work in other professional domains (not in teaching). The average of the working time in teaching of teachers’ group is 14 years; the average of the working time out of teaching of non-teachers’ group is 15 years.

The research was carried out in period February-May in 2006; the subjects answered individually.

5. **RESULTS AND DISCUSSION**

The professionals in teaching and professionals of the same professions out of teaching process demonstrate similar communication characteristics (most of indicators are similar), and very rarely differences (table 2).

**Table. 2: Communication competences components**

<table>
<thead>
<tr>
<th>Results of ANOVA df (1,118)</th>
<th>Possible</th>
<th>M</th>
<th>Teachers, at school</th>
<th>Nonteachers out of school</th>
<th>F</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIS Interaction involvement</td>
<td>18-90</td>
<td>69.77</td>
<td>69.93</td>
<td>69.62</td>
<td>0.061</td>
<td>0.805</td>
</tr>
<tr>
<td>A</td>
<td>Attentiveness</td>
<td>6-30</td>
<td>23.12</td>
<td>23.47</td>
<td>22.77</td>
<td>1.595</td>
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<tr>
<td>P</td>
<td>Perceptiveness</td>
<td>4-20</td>
<td>15.14</td>
<td>14.97</td>
<td>15.32</td>
<td>1.016</td>
</tr>
<tr>
<td>R</td>
<td>Responsiveness</td>
<td>8-40</td>
<td>31.52</td>
<td>31.50</td>
<td>31.53</td>
<td>0.002</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Conflict resolution styles</th>
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</thead>
<tbody>
<tr>
<td>Int K1 – integration</td>
<td>7-35</td>
<td>28.63</td>
<td>29.05</td>
<td>28.20</td>
<td>1.561</td>
<td>0.214</td>
<td></td>
</tr>
<tr>
<td>Dom K2 – domination</td>
<td>7-35</td>
<td>21.56</td>
<td>20.97</td>
<td>22.15</td>
<td>2.450</td>
<td>0.120</td>
<td></td>
</tr>
<tr>
<td>Neg K3 – negotiating</td>
<td>7-35</td>
<td>22.06</td>
<td>22.08</td>
<td>22.03</td>
<td>0.003</td>
<td>0.959</td>
<td></td>
</tr>
<tr>
<td>Ind K4 – indulgence</td>
<td>6-30</td>
<td>17.61</td>
<td>18.62</td>
<td>16.60</td>
<td>9.518</td>
<td>0.003*</td>
<td></td>
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<thead>
<tr>
<th>Team working attitudes</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 Reason to beginning team work</td>
<td>4-20</td>
<td>16.36</td>
<td>16.45</td>
<td>16.27</td>
<td>0.221</td>
<td>0.639</td>
<td></td>
</tr>
<tr>
<td>T2 Preference behaviour in team meeting</td>
<td>4-20</td>
<td>16.61</td>
<td>16.85</td>
<td>16.37</td>
<td>1.224</td>
<td>0.271</td>
<td></td>
</tr>
<tr>
<td>T3 Response to conflict</td>
<td>4-20</td>
<td>16.60</td>
<td>16.87</td>
<td>16.33</td>
<td>1.973</td>
<td>0.163</td>
<td></td>
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<tr>
<td>T4 Response to team working difficulties</td>
<td>4-20</td>
<td>17.37</td>
<td>17.38</td>
<td>17.35</td>
<td>0.008</td>
<td>0.928</td>
<td></td>
</tr>
<tr>
<td>T5 Necessary conditions to resolving team problems</td>
<td>4-20</td>
<td>17.44</td>
<td>17.25</td>
<td>17.63</td>
<td>1.223</td>
<td>0.271</td>
<td></td>
</tr>
<tr>
<td>T6 The method of team formation</td>
<td>4-20</td>
<td>18.07</td>
<td>17.97</td>
<td>18.18</td>
<td>0.415</td>
<td>0.521</td>
<td></td>
</tr>
<tr>
<td>T7 Leader behaviour</td>
<td>4-20</td>
<td>16.91</td>
<td>17.10</td>
<td>16.72</td>
<td>1.108</td>
<td>0.295</td>
<td></td>
</tr>
<tr>
<td>T8 The importance of some components of team decision making</td>
<td>4-20</td>
<td>17.09</td>
<td>17.43</td>
<td>16.75</td>
<td>2.535</td>
<td>0.144</td>
<td></td>
</tr>
<tr>
<td>T9 Personal reasons to join the team working</td>
<td>4-20</td>
<td>15.15</td>
<td>15.17</td>
<td>15.13</td>
<td>0.004</td>
<td>0.951</td>
<td></td>
</tr>
</tbody>
</table>

| N  | 120 | 60  | 60  |

The both groups manifest the moderate level of interaction involvement (fig. 2). The level is relatively low for teaching process. The professionals, who did not finish teacher education, but actually work in teaching process (teachers), do not develop and manifest levels of interaction involvement needed for effective teaching organization.

![Fig. 2: Interaction involvement professionals at school - teachers and out of school - non-teachers](image-url)
Teachers and non-teachers are involved in the conversation and verbal communication in the similar way, they follow the performance of conversation partner (students in teaching) in the same way, their attentiveness to the conversation partners’ individual differences is the same, their interpretation of the conversation communication context is the same or similar (table 2).

Teachers and non-teachers (both of them obtained non-teacher university education) choose integrative, domination and negotiating conflict solving style at the same degree. But, the difference in choosing indulgence conflict solution style between teachers and non-teachers is significant: teachers choose the indulgence style more than the non-teachers do. Although the teaching process is asymmetrically organized social situation where hierarchical relations between students and teachers are obvious, the teachers choose indulgence conflict solution style more frequently than their colleagues out of teaching do. There some differences between different professional groups, but we don’t show that results in this paper.

![Fig. 3: Conflict solution styles](image)

Teachers and non-teachers assess the importance of the team work elements for team effectiveness and personal satisfaction. The both groups have similar orientation and attitudes – there aren’t significant differences in their attitudes to beginning team work (T1), preference behaviour in the team meeting (T2), response to conflict (T3) and working out difficulties in the team (T4), necessary conditions to resolving team problems (T5), the method of team formation (T6), leader behaviour (T7), the importance of some components of team decision making (T8), the personal reasons to join the team work (T9).

![Fig. 4: Team working attitudes](image)

If their education is equal, have they developed the same social skills and competences in their different work environment? Do they develop these communication competences, which is very important for teaching, spontaneously and empirically through highly rich social interaction in teaching?
6. CONCLUSIONS AND EDUCATIONAL IMPLICATIONS

Generally, there are no significant differences between engineers teachers and engineers non-teachers (they are professionals in other domains – economy, etc) considering the degree of examined indicators of communication competence:
- The interaction involvement between teachers and non-teachers are similar, they percept communication situation and the meaning of conversation communication signs in the same way;
- the both groups comprehend team functioning in similar way;
- they choose integrative, negotiating and dominance conflict resolution styles in the same way, but teachers choose indulgence style more frequently than non-teachers do..

Teaching work does not make spontaneous socialization of communication competence at the communication level formative to more effective teaching interaction.

Since communication competence is formative for the entire teacher’s successful professional action (the teaching is socio-interactive communication process), it is necessary to strengthen these competences in a systematic way by organizing suitable training programs for in-service teachers as well as future teachers of technical engineering during their initial education. It is essential that teacher education at all education level should be a part of their pre-service/in-study academic education; engineers, economists and professionals from other domains should not join teaching profession without previous teacher education.

Various models of communication competence development are applied in teacher education and training, but the following elements are common:
- Systematic acquisition of adequate communication behaviour of teachers begins by obtaining information of the communication process; then there is instruction about communication signs types, characteristics of signs, the sign meaning in different context, the rules of signs use and shape messages (massage is the fundamental unit of communication). Improvement of awareness of what the special communication activities mean is the initial step of changing teacher’s communication. That step makes possible for teachers to choose the communication manner, to extend communication competences and to initiate the changes in students’ behaviour.

- Measuring effects of communication skills development programs for different professional groups suggests that systematic approach to development of employee’s communication competences improves work effectiveness; the rules of business action and contact boundaries are clearly defined, the work conflicts are diminishing, partners are satisfied, the social contact stress is diminishing, etc.

Considering the teachers’ role, it is obvious that we want to educate the teachers who will be capable of controlling and facilitating classroom communication, communication with colleagues and students’ parents effectively. Teachers should develop adequate social skills, conduct wide repertoire of communication strategies, learn and understand causes and consequences of their communication actions, develop abilities to find and apply the best communication alternatives and to make adequate improvisation and redefinition of action plan, taking into consideration new moments in a social situation.

7. LITERATURE

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