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Professional development of preschool teachers and changing the culture of the institution of early education

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ABSTRACT
The culture of institutions of early education is a strong network of customs, rules, norms and behaviours that affect the daily life and work of all its individuals. Consequently, the professional development of preschool teachers is not only an individual process of professional advancement, but also a process that changes the culture of the institution of early education and includes all participants of the educational process. In this paper, we examine the perception of the preschool teacher profession and the connection between the preschool teachers’ attitudes about their profession and their focus on continuous learning and exploring personal practice. The research was conducted on a random sample of \( N = 238 \) preschool teachers in Croatia. For data collection, we used the Questionnaire for the assessment of the culture of the educational institution designed for the needs of the scientific research project ‘Culture of the educational institution as a factor of co-constructing knowledge’.

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Culture of institutions of early education; dimensions of the institution; educational paradigm of preschool teachers; professional development

Introduction
Reform makers put in efforts in the attempt to include content, teaching, and assessment as important parameters in assessing the performance of some reforms; however, without a culture that supports them and the values of these structural changes, reforms are and will remain doomed to fail (Vujičić, 2011). Similarly, Lieberman and Miller (2002), Prosser (1999), Stoll and Fink (2000), Fullan (2005, 2007), and Schoen and Teddlie (2008) explained that imaginary government reforms at the system level only superficially change the conditions in educational institutions and do not penetrate deeply into the fabric of institutions. They warn that quality changes in education occur by changing the structure and atmosphere in educational institutions, which they call changing the culture of the institution. Culture, therefore, must be interpreted and deciphered, but a reliable formula or a model cannot be provided. This requires careful reflection and self-criticism of one’s own cultural prejudices and what different concepts of culture can reveal or hide (Å lvesson, 2002).

From this perspective, Hopkins (2001) highlighted that the overall educational practice reflects the teachers’ implicit theories, so ‘a change of this practice can only happen as a result of clarity and coherence in the mentality of the teacher’ (p. 95). Fleming and Kleinhenz (2007) concluded that schools will not improve until teachers begin to collectively explore new concepts of teaching, question the effective practice, and actively support each other in their professional growth.

In an attempt to define the culture of educational institutions, we accepted the starting points of Deal and Peterson (2009), who emphasized that there is no perfect definition but that a number of them jointly include what is common to the definition of culture of the educational institution. For
this reason, we singled out several definitions by different authors who have defined the culture of the educational institution as follows: as a lens through which the respondents see themselves and the world around them (Hargreaves, 1999); as ‘a living thing’ and it seems that the interrelationships between teachers and children in the institution, and interrelationships of teachers and children with the community (Fullan, 1999) are its most profound characteristic; it includes general norms, beliefs about authority, obedient and disobedient behaviour, basic knowledge of how things work (Datnow, Hubbard, & Mehan, 2002); as an untouchable construct which is impossible to be observed directly and tangibly (Schoen & Teddlie, 2008); as

a way we do things and relate to each other at school, or, on the one hand, it represents all the knowledge, beliefs, values, customs, morals, rituals, symbols, and the language of a group, and, on the other hand, it includes deeper levels of basic assumptions and beliefs shared by members of an organization, and acting on them unconsciously. (Fleming & Kleinhenz, 2007, p. 5)

By studying the literature of different authors with the aim of formulating a more comprehensive definition of the culture of the educational institution, we have chosen the one according to which the culture of the educational institution is an expression of common, basic settings, preschool teachers’/elementary school teachers’, assistants’, administrative and support staff’s, parents’, and principals’ beliefs, which are characteristic for the operation of educational institutions, and are identified by mutual relationships among people, their collaboration, management of the institution, organizational and physical environment, and the degree of focus on teaching and research (Vujičić, 2011).

Over the past few decades, theoretical and conceptual understanding of professional development has changed; the emphasis has shifted from teaching (as a set of skills and competences) to learning of the teachers themselves (Sparks, 2002; Stoll, Earl, & Fink, 2003, as cited in Collinson et al., 2009; Grossman, Hammerness, & McDonald, 2009; Kimonen & Nevalainen, 2005). Fleming and Kleinhenz (2007) describe effective professional learning of teachers as creating context and using those methods that increase the frequency and quality of professional conversation (reflection) about deep aspects of teaching practice. During this long-term personal pursuit ‘teachers teach in the way that they are collegially involved in solving authentic problems related to the reduction of the gap between what is expected for students to learn and their actual learning outcomes’ (Hawley & Valli, 1999, as cited in Fleming & Kleinhenz, 2007, p. 12). Unlike the current ‘front end’ (surface) professional learning, which is based on participation in ‘courses’ (workshops, conferences), the same authors (Hawley and Valli) discuss the ‘back end’ (deep) professional learning, which requires from teachers and at the same time provides them with ‘support to test new learning approaches in their own classes’ (Fullan, 1982, as cited in Fleming & Kleinhenz, 2007, p. 13). The role of the teacher is no longer viewed as a side role, but as one that is capable of change, and learning is an adventure in the creation of meaning (Soltis, 1993, as cited in Collinson et al., 2009). This becomes the main feature (Bruner, 2000; Fleming & Kleinhenz, 2007) by which to distinguish schools that have culture of ‘results’ and those that do not have, and emphasize that the success of students becomes a phenomenon that is in direct relation to what schools and teachers do.

Lave and Wenger (1991) opposed the idea that direct instruction and learning through verbal instruction is successful and efficient, stressing their position that there is no learning without active participation in this process. They therefore stressed the importance of the social process of learning and not just individual one, and the importance of observing and participating in educational practice. Since beliefs filter knowledge and govern the preschool teachers’ behaviour, improving the practice and a change in the culture of the institution of early education will not happen if it is not connected to the questioning and modifying of those beliefs and the overall educational philosophy of preschool teachers (Fullan, 2003, 2007). Therefore, the professional development of preschool teachers should result not only in advances in knowledge, but also in changes in their beliefs and behaviour. In order to achieve this, it is necessary to move away from traditional approach to professional development with an informative character based on a mere transmission of knowledge, and to aspire to modern forms of professional development that have a transformative
potential (Appleby & Andrews, 2012), that is, those which have research characteristics and allow the questioning of one’s own beliefs, experiences, and everyday practices (according to Croatian National Curriculum for Early and Preschool Education [NCEPE], 2014).

Therefore, at the centre of our deliberation is searching for the answer to the question what is the connection between the professional development of preschool teachers and changing the culture of the institution of early education.

**Research methodology**

The goal of a wider research, as an integral part of the research project *Culture of the educational institution as a factor of co-constructing knowledge* conducted at the University of Rijeka (grant number: 13.10.2.2.01), was to investigate the relationship of various dimensions of institutional culture. In this paper, we will present the research results related to establishing connections between the preschool teachers’ attitudes towards their profession with their focus on continuous learning and exploring personal practice. We hypothesized that the modern views of preschool teachers on professional development and teacher profession would be positively correlated with the culture of the institution that is focused on continuous learning and changing practices and the modern approach to professional development.

Research was conducted in September 2015 on a random sample of $N = 238$ preschool teachers in Croatia, from the city of Rijeka (58%) and the city of Zagreb (42%). Invitation letters to participate in the study were sent by e-mail first to the preschool principals. After obtaining their consent, the invitation to participate was sent to the preschool teachers themselves.

A possible limitation to this research in connection with the sample is observable in the fact that the survey included preschool teachers from two major cities in the Republic of Croatia – Zagreb and Rijeka. Since local governments in bigger cities often provide greater financial support to the field of early and preschool education, there is also a greater availability of various forms of professional development for the educational staff, greater networking opportunities for preschools as platforms for an exchange of professional experiences, knowledge and ideas; therefore, it is possible to expect that the frequency of participation of preschool teachers in contemporary forms of professional development (action research, professional learning communities, …) in these areas would also be greater, which can be reflected in their greater adherence to modern attitudes about their own profession. It would therefore be interesting to examine which forms of professional development preschool teachers commonly use in smaller towns or rural areas, and to what extent they affect their perception of their profession and professional development.

For the purpose of data collection, we used the *Questionnaire for the assessment of the culture of the educational institution* designed for the needs of the aforementioned project. When choosing a theoretical starting point for the construction of the questionnaire, we opted for a typology of school culture (here in after referred to as the culture of the educational institution) by Stoll and Fink (2000), which is based on the dimensions of efficiency–inefficiency of the school and improvement–decline of the school, which are embodied in two fundamental dimensions of the context of ECEC institutions – environmental (physical and temporal) and socio-pedagogical dimension (adapted from Petrović Sočo, 2007) that we analysed in fourteen dimensions. Since they reflect the preschool culture (acknowledged and included in the NCEPE, 2014), they might be considered as dimensions of the preschool culture.

The questionnaire consists of three scales. With the *Scale of the state of the preschool culture* (Cronbach’s alpha = 0.736) we tried to determine the current status of structural dimensions (space, materials, and time organization) and relationships within the institution. With the *Scale of professional development* (Cronbach’s alpha = 0.802), we tried to examine the frequency of certain forms of professional development used by preschool teachers. With the *Scale of preschool teachers’ educational paradigm* (Cronbach’s alpha = 0.607) we tried to examine the attitudes of preschool
teachers towards various aspects of the educational process. In all three scales, the respondents provided responses on a five-point Likert scale.

**Results and discussion**

The total sample consisted of 98.1% of female and 1.7% male preschool teachers. The average age of the respondents was 42.64 years, ranging from 23 to 62 years. The average length of service was 19.61 years, ranging from 0.5 to 42.5 years. The highest percentage of surveyed preschool teachers (65.1% of respondents) have a college, professional or undergraduate degree (Bachelor’s degree), 27.7% have a university degree (graduate studies–Master degree), while the smallest percentage of the respondents (5.0%) have a completed secondary education.

**Frequency of different forms of professional development aimed at continuous learning and research practices – assessment of the situation in institutions**

Through the particles grouped in the *Scale of professional development* (Table 1), we operationalize preschool teachers’ orientation towards continuous learning and exploring their own practice as one of the dimensions of preschool culture. We attempted to determine the frequency of using certain modes and practices of professional development by preschool teachers. By choosing a response offered in the frequency range from 1 to 5 (1-never, 2-rarely; 3-sometimes; 4-often; 5-always), the respondents were asked to assess the frequency of specific activities for the improvement of the educational practice in preschools in which they work. To simplify the interpretation of descriptive indicators of the preschool teachers’ focus on continuous learning and research practices, in all variables, we combined the response modalities: never and rarely, and the modalities often and always.

A higher frequency of using the practices referred to in the statements in Table 1 is a proof of the modern approach to professional development of preschool teachers, that is, to the preschool teachers’ focus on continuous learning, research, and changing their practice. The preschool teachers’ participation in various forms of ‘external’ professional development (*M* = 4.09; *sd* = 0.804) is

<table>
<thead>
<tr>
<th>Preschool teachers’ focus on continuous learning and practice research</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>na</th>
<th>M</th>
<th>sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Preschool teachers in my preschool take part in various forms of 'external' professional training (e.g. organized by agencies, universities, associations …).</td>
<td>0.8</td>
<td>3.4</td>
<td>13.0</td>
<td>51.7</td>
<td>31.1</td>
<td>4.09</td>
<td>0.804</td>
<td></td>
</tr>
<tr>
<td>2. We ‘discover’ the interests and needs of each individual child based on gathered documentation (video-records and photographs of children’s activities, children’s work, statements …).</td>
<td>5.5</td>
<td>16.0</td>
<td>56.3</td>
<td>21.8</td>
<td>0.4</td>
<td>3.95</td>
<td>0.774</td>
<td></td>
</tr>
<tr>
<td>3. In my preschool ‘internal’ workshops, seminars, lectures on various topics are organized for preschool teachers.</td>
<td>3.4</td>
<td>5.9</td>
<td>17.2</td>
<td>38.7</td>
<td>34.5</td>
<td>1</td>
<td>3.95</td>
<td>1.030</td>
</tr>
<tr>
<td>4. My preschool cooperates with important stakeholders in the field of education (e.g. faculties, agencies, various associations …).</td>
<td>3.4</td>
<td>8.4</td>
<td>17.2</td>
<td>37.4</td>
<td>33.6</td>
<td>3.89</td>
<td>1.068</td>
<td></td>
</tr>
<tr>
<td>5. My preschool participates/has participated in action research.</td>
<td>6.3</td>
<td>6.3</td>
<td>23.9</td>
<td>29.0</td>
<td>30.3</td>
<td>4.2</td>
<td>3.74</td>
<td>1.165</td>
</tr>
<tr>
<td>6. Meetings with preschool teachers (reflexive practicums) take place in my preschool.</td>
<td>7.6</td>
<td>10.9</td>
<td>26.1</td>
<td>30.3</td>
<td>23.1</td>
<td>2.1</td>
<td>3.52</td>
<td>1.189</td>
</tr>
<tr>
<td>7. My preschool cooperates with other preschools with the aim of exchanging ideas, thinking about and improving the quality of our education practice.</td>
<td>6.3</td>
<td>16.4</td>
<td>35.3</td>
<td>31.5</td>
<td>9.2</td>
<td>1.3</td>
<td>3.21</td>
<td>1.036</td>
</tr>
</tbody>
</table>

Note: na: no answer; *M*: mean; *sd*: standard deviation.
emphasized as the most common practice of professional development. Discovering interests and needs of the child based on available documentation is a common practice in 78.1% of the surveyed preschool teachers, while 'internal' workshops for preschool teachers are often or always held in preschools of almost three quarters of the respondents (73.2%). Cooperation between preschool and important stakeholders in the field of education is a common practice in the preschools in 71% of the surveyed preschool teachers.

Furthermore, 59.3% of the respondents indicated that their preschool is often or always involved in action research, 23.9% of the respondents stated that in their preschool this practice occurs occasionally, while only 12.6% of the respondents mentioned that their preschool rarely or never participates in action research. Action research as one of the modalities of professional development of preschool teachers is emphasized in Croatian NCEPE (2014), whose implementation is still in its initial phase. The implementation process of the official curriculum in educational practice is a time-consuming and complex process whose implementation requires new knowledge and new insights on the relationship between theory and practice (Hargreaves, 1999; Hopkins, 2001), that is, it is necessary to know how to implement the theory considering the specificity and uniqueness of the context of each institution (Fullan, 1999). Taking into account the durability and gradualism of implementation process of the official curriculum in educational practice, it is not realistic to expect a high incidence of conducting action research in institutions of early education in Croatia at the moment. Therefore, the resulting percentage of frequency of action research in preschools appears to be much higher than expected and may indicate a lack of understanding of the concept of action research by the respondents or their efforts to provide socially desirable answers considering that action research has become an increasingly present and current methodological approach to research in the field of early and preschool education, both in the international and in the Croatian national context, which is supported by a substantial number of current research and scientific literature (Fullan, 2005; Hopkins, 2001; Miljak, 2009, 2015; Rinaldi, 2006; Slunjski, 2016; Vujicic, 2016). Another possible reason for the obtained higher percentage of the frequency of conducting action research than expected can be found in the aforementioned limitation of the sample, which refers to the scope of preschool teachers from major metropolitan areas in which greater involvement of external supervisors (scientists, experts) is possible who support and assist practitioners in conducting action research in institutions of early education.

Reflective practicums, as a form of professional development, are carried out often or always in the preschools of slightly more than half of the respondents (53.4%); they are occasionally carried out in preschool of 26.1% of the respondents, and seldom or never in preschools of 18.5% of the respondents. Also, 35.3% of the respondents noted that their preschool cooperates occasionally with other preschools for the purpose of exchanging ideas and improvement of the educational practice, while in preschools of 22.7% of the respondents, cooperation is practised rarely or never. Less than half of the respondents (40.7%) noted that they cooperate with other preschools often or always, which is still not frequent enough to be considered as a widespread practice, if we take into account that creating professional learning communities is cited in the Croatian NCEPE (2014) as one of the basic forms of professional development of preschool teachers.

Preschool teachers’ attitudes about their profession and professional development

With the Scale of preschool teachers’ educational paradigm, we tried to examine the attitudes of preschool teachers towards various aspects of the educational process, as a part of their educational paradigm: image of a child, understanding of knowledge construction, understanding of the learning process, understanding of the curriculum objective, ways of constructing the curriculum, social formations, and the perception of the preschool teacher profession. For the purposes of this paper, we will only focus on the attitudes of preschool teachers towards their profession and professional development, operationalized through seven statements (Table 2). On a five-point Likert scale, the respondents were asked to express their level of agreement with each statement (1–I fully disagree,
To simplify the interpretation of the descriptive indicators of preschool teachers’ attitudes towards their own profession, the modalities of responses were combined for all statements: I fully disagree and I disagree, and modalities I agree and I fully agree.

Greater agreement with the first six particles in Table 2 shows the contemporary preschool teachers’ perception about their profession, whereby the attitude of the respondents emphasizes that one does not become a good preschool teacher with many years of work experience but rather by thinking about and reflecting on one’s practice (M = 4.45; sd = 0.685), as well as that joint research of educational practice by preschool teachers, professional teams, and scientists is the foundation for improving the practice (M = 4.38; sd = 0.665); 63.1% of the respondents agree with the statement that professional development should result in greater changes in preschool teachers’ beliefs and behaviours rather than in knowledge.

Note: na: no answer; M: mean; sd: standard deviation.

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Only 22.3% of the respondents agree with the attitude that only an inexperienced preschool teacher doubts the correctness of his own style of learning and teaching children, 33.2% of them neither agree nor disagree, while 42% disagree with this attitude.

Greater adherence to the last statement in Table 2 shows the traditional attitudes of preschool teachers towards their own profession. From the displayed data, it shows that 42.5% of the respondents still believe that forms of professional training, such as seminars and lectures, give concrete answers to problems encountered in practice, while 43.7% of them neither agree nor disagree with this statement. Only 12.6% of the respondents expressed their disagreement with the statement, which is a small percentage if one takes into account the fact that educational practice of each preschool is unique and unpredictable, and therefore there is no universal recipe for solving problems encountered in practice; instead, it is necessary to research and reflect in order to improve its quality (Dahlberg, Moss, & Pence, 2007; Rinaldi, 2006).

**Connection between professional development and preschool teachers’ attitudes towards their profession**

Professional development of preschool teachers is not only an individual process of professional advancement, but also a process that changes the culture of the institution in which everyone participates (Vujičić, 2011). In order to examine the existence of the connection between the current state of the institution in terms of the focus on continuous professional development and the part of the preschool teachers’ educational paradigm pertaining to their attitudes about their own profession, we calculated the Pearson correlation coefficient whereby we crossed each of the seven variables from the first dimension with each of the seven variables from the second dimension of institutional culture.

The surveyed preschool teachers estimated the attendance of various forms of ‘external’ professional development (e.g. organized by agencies, universities, associations . . .) \( (M = 4.09; \text{sd} = 0.804) \) as the most frequently applied practice of professional development. The higher the respondent estimated the incidence of participation in these forms of professional training, the more frequent the practice of a modern approach to professional development.

When we crossed the aforementioned statement with all the preschool teachers’ attitudes about their profession and professional development, the value of the Pearson correlation coefficient indicated that there is significantly weak positive correlation\(^3\) between the frequency of attending various forms of ‘external’ training and the attitude that a good preschool teacher is not the one with a lot of years of work experience, but one that thinks and reflects about her own practice \( (r = 0.301, p < .05) \), as well as that joint research of educational practice by preschool teachers, professional teams, and scientists is a basis of understanding, changing, and improving practice \( (r = 0.234, p < .05) \). Greater adherence to the above attitudes indicates the preschool teachers’ contemporary understanding of professional development and their own profession. The obtained results show that those preschool teachers who show modern attitudes towards their own profession and professional development often attend various forms of ‘external’ professional development. However, it should be noted that mere forms of ‘external’ professional development will not contribute to a true change of the culture of the educational institution because a direct involvement of practitioners in the research of their own educational practice has the highest efficiency in its changing within the specifics of the educational context in which they live and work (Fullan, 2005, 2007).

The next particle estimated as a frequently used form of professional development of respondents is the practice of observing the interests, needs, and progress of each child based on collected documentation (video recordings and photographs of children’s activities, children’s work, scale models, statements . . .) \( (M = 3.95; \text{sd} = 0.774) \). The higher the respondents assessed the incidence of this practice, the larger the application of modern approach to the professional development of preschool teachers in their preschool. By acknowledging the importance of an active, integrated, and research nature of the children’s learning process, it shows that the planning of a precise flow of their activities
and fragmented learning content is inappropriate (according to NCEPE, 2014). Instead, it is necessary to plan contextual conditions (environment) for conducting various educational activities and acquiring diverse experiences of children as a basis for the development of their competences. Therefore, it is necessary to closely monitor, observe, and understand children, and document their activities, which is the basis for the preparation of the environment, preschool teachers’ appropriate educational intervention, and harmonization of preschool teacher’s overall educational work with individual development peculiarities of children (different interests, needs, previous knowledge, and learning styles) (see Vujičić & Miketek, 2014). Documenting children’s activities, subsequent reflection and debate on the observed provide the preschool teachers with an insight into the quality of their own interventions and procedures in educational practice, which leads not only to the creation of new knowledge, but also affects the change of their implicit pedagogy (beliefs, values, and attitudes). This makes documentation a powerful tool for preschool teachers’ professional development and the change of the culture of the educational institution (Rinaldi, 2001, 2006; Vujičić, 2016).

The Pearson correlation coefficient showed a statistically significant weak positive correlation between monitoring a child’s progress on the basis of collected documentation with the attitude that a good preschool teacher is not the one with a lot of years of work experience but rather the one who thinks about and reflects on his own practice \( r = 0.249, p < .05 \), with the preschool teachers’ attitude that professional development should result in major changes in the preschool teachers’ beliefs and behaviour rather than in their knowledge \( r = 0.154, p < .05 \), as well as with the attitude that joint research of educational practice by preschool teachers, professional teams, and scientists is a foundation of understanding, changing, and improving practice \( r = 0.188, p < .05 \). Greater adherence to the above attitudes indicates the contemporary understanding of the process of professional development and learning. The results show that the more preschool teachers recognize contemporary attitudes about their own profession and professional development, the more focused they are on the use of modern forms of professional development.

The next most frequently applied practice of the preschool teachers’ professional development is the estimated attendance of ‘internal’ workshops, seminars, and lectures on various topics in the preschool (\( M = 3.95; \text{sd} = 1.030 \)). The greater the respondent estimates the frequency of such workshops, the more contemporary approach to the preschool teachers’ professional development is applied in their preschool. The value of ‘internal’ forms of training lies in the fact that educational practices of each institution are authentic and specific, and are a reflection of contextual, financial, organizational, cultural, and other circumstances in which it exists. It is therefore impossible to give universal recipes and instructions to change and improve the quality of educational practices in different institutions, as well as to literally, uncritically take over and implement ideas from one preschool context to another (Croatian National Center for the External Evaluation of Education [CNCEEE], 2012).

The statistical analysis has shown a statistically significant weak positive correlation between the frequency of ‘internal’ workshops and seminars in preschools with the attitude that a good preschool teacher is not the one with a lot of years of work experience but rather the one who thinks about and reflects on her own practice \( r = 0.178, p < .05 \), with the attitude of preschool teachers that professional development should result in the preschool teachers’ major changes in the beliefs and behaviour rather than in their knowledge \( r = 0.182, p < .05 \), and with the attitude that joint research of educational practice by preschool teachers, professional teams, and scientists is a basis of understanding, changing, and improving the practice \( r = 0.193, p < .05 \). Greater adherence to the above-mentioned statements indicates the preschool teachers’ contemporary understanding of professional development. The results indicate that as preschool teachers have more modern views about their profession and professional development, the more focused they are on professional development within their institutions and within their local context.

However, a statistically significant weak positive correlation was determined between conducting ‘internal’ workshops and seminars in preschools and the preschool teachers’ attitude that forms of professional training, such as seminars and lectures, provide concrete answers to problems which they encounter in their practice \( r = 0.144; p < .05 \). This correlation is not consistent with the expected
because a greater deference of preschool teachers to the mentioned attitude towards the applicability of informative forms of professional development (seminars, lectures) in their own practice points to the traditional understanding of professional development, while the practice of holding ‘internal’ workshops and seminars in preschools is a characteristic of the modern understanding of the professional development process. Professional development focused on attempts to give specific guidance for work in educational practice reduces the process of professional development to sporadic and partial teaching, and it is tied to the technical-rational paradigm of learning, which is based on learning and practising certain procedures and strategies with a view of their subsequent mechanical transmission in the educational context, regardless of its specific characteristics (Rouse, 2012; Sellars, 2014). Taking into account the dynamism and unpredictability of the educational practice, it is reasonable to raise the question whether concrete questions and ‘prepared recipes’ can be provided. Procedural knowledge (to know ‘how’) is not acquired through a transmission of knowledge in lectures, seminars or workshops, but through a more reflective observation of practice and experimenting with (new) ideas in practice (Miljak, 2009).

The determined positive correlation between the modern practice of professional development and the traditional attitude about it problematizes the question about the discriminatory nature of the particle "Forms of professional training: seminars and lectures provide preschool teachers with concrete answers to problems encountered in their practice." We find several possible explanations for the high inclination of the respondents towards the aforementioned (traditional) position. It is possible that preschool teachers do not perceive the mentioned forms of professional development (seminars and lectures) as ‘outdated’ because they are still the dominant form of professional development of preschool teachers in Croatia, especially as part of training organized by the Agency for Education (AZOO), which holds primacy in organizing and conducting professional development of educational staff. The other reason for the high inclination towards the above attitude may be the second part of the particle: ‘provide preschool teachers with concrete answers to problems encountered in their practice’, which may have confused the respondents. In fact, in recent times, one of the requirements of professional educations by AZOO is that they should have an interactive character, which means that, in addition to formal ex cathedra lectures, they should offer workshops, discussion groups, and so on within which the respondents would have the opportunity to debate, discuss, share experiences, ideas, and information about educational practice, which can contribute to their feeling of finding solutions to specific problems encountered in their practice. Perhaps precisely the mentioned request for interactive education has led the respondents to a greater adherence to the mentioned particle. In general, the obtained unexpected connection between the practice of contemporary forms of professional development in the form of ‘internal’ education and the traditional view that seminars and lectures provide the preschool teacher with concrete answers to problems in practice raises the question of the manner in which the respondents understand this statement and opens up space to search for answers to whole new dilemmas and questions concerning the way in which preschool teachers assess the usefulness, applicability, and transferability of knowledge, insight, and information obtained during seminars and lectures as a form of professional development.

The next particle of the dimension of the preschool teachers’ orientation towards continuous learning and exploring personal practice is: My preschool cooperates with important stakeholders in the field of education (e.g. faculties, agencies, various associations, ...). A higher incidence of such cooperation means that modern approach to professional development of preschool teachers is applied in this preschool. External support to professional development of preschool teachers and other staff within institutions of early education, such as, for example, the partnership of institutions of early education with universities and other external organizations in the field of early and preschool education, creation of cooperative groups, institutions’ networks and so on, plays a key role in the effort to transform institutions of early education from ‘bureaucratic’ to professional organizations (Miljak, 2015), as well as to create and develop transformational learning and knowledge of the entire staff involved in this process (NCEPE, 2014).
In terms of the frequency of the preschools’ cooperation with important stakeholders in the field of education, a significantly weak positive correlation was obtained in the attitude that one does not become a good preschool teacher with a lot of work experience but rather by thinking about and reflecting on one’s practice ($r = 0.198; p < .05$), as well as in the attitude that joint research of educational practice by preschool teachers, professional teams, and scientists is the foundation for improving the practice ($r = 0.129, p < .05$). Greater adherence to the above attitudes indicates the preschool teachers’ contemporary understanding of their own professional development. The obtained results show that the more inclined preschool teachers are to the modern concept of their own profession, the more often they collaborate with external stakeholders in the field of education.

Preschool teachers assessed the participation in action research as one of the three most rarely used forms of professional development ($M = 3.74; sd = 1.165$). A higher frequency of participation in such research speaks to the application of modern approach in professional development of preschool teachers in a particular preschool.

If we start from the thesis that the creation of a positive culture of the institution of early education can only be achieved through changes in thinking and beliefs of its members as the basis for changing their behaviour, then it is necessary to direct the professional development of preschool teachers towards those forms that have a transformative potential, which includes the development of research and reflective skills of the people within the institution. This is achieved by participating in action research, preferably under the supervision of academic researchers. This strengthens the self-organizational potential of institutions, which leads to improving the educational practice and sustainability of achieved changes (Deal & Peterson, 2009; Fullan, 2005, 2007; Hargreaves, 1999; Hopkins, 2001; Miljak, 2015; NCEPE, 2014).

There is a significant weak positive correlation between the participation in action research with the preschool teachers’ attitude that forms of professional training (seminars, lectures), provide the preschool teacher with concrete answers to problems they encountered in their practice ($r = 0.150, p < .05$). This correlation is not consistent with the expected because a greater inclination of preschool teachers to the mentioned attitude towards the applicability of informative forms of professional development (seminars, lectures) in their own practice points to the traditional understanding of professional development, while the participation of preschool teachers in action research is a characteristic of the modern understanding of the professional development process. We assume that the participation in action research helps preschool teachers in raising the awareness about the dynamism and unpredictability of practice, which would mean that it is not possible to give concrete solutions and ready-made recipes for work (Sellars, 2014). A possible explanation for the obtained positive correlation between these statements is closely connected to the previous explanation of the particle ‘seminars and lectures provide preschool teachers with concrete answers to problems encountered in their practice’ in terms of its lack of discrimination, lack of understanding of the particle, or lack of its understanding as an ‘outdated’ means of preschool teachers’ professional training, which is not in accordance with the practice of conducting action research in preschools.

The penultimate least often used form of professional development of preschool teachers is holding joint meetings of preschool teachers, that is, reflective practicum ($M = 3.52; sd = 1.189$). A greater emphasis of the reported frequency of the reflective practicum in the preschool is a testament to the application of modern approach to preschool teachers’ professional development. Professional development through reflective practice is one of the most effective ways of professional advancement because it creates conditions for self-study and self-improvement in which theoretical knowledge is directly tested in practice, reviewed and thus transferred to a very complex level of situational and contextual areas (Šagud, 2011). Therefore, joint research of a direct educational practice (by preschool teachers, professional teams, principals, and scientists) through reflection and self-reflection, with the aim of its better understanding, should be the dominant form of professional development of practitioners because this process achieves a dialogue with other respondents in the educational practice (so-called ‘critical friends’) through which they reflect, test and find solutions.
for problems and challenges specific to the educational practice (Fullan, 2005, 2007; Miljak, 2009; Rinaldi, 2006; Senge et al., 2003; Šagud, 2011).

A statistically significant weak positive correlation was determined between the reflective practicum in preschools and the preschool teachers’ attitudes that forms of professional training, such as seminars and lectures, provide them with concrete answers to problems encountered in their practice ($r = 0.162, p < .05$). This correlation is not as expected because a higher adherence to this attitude indicates the preschool teachers’ traditional approach to understanding professional development, while the reflective practicum is a characteristic of a modern understanding of the professional development process.

As the most rarely used practice of professional development, preschool teachers have assessed the cooperation of their preschool with other preschools with the aim of exchanging ideas and ways of improving the quality of educational practice, and creating network of learning communities. The higher the respondent estimated the incidence of this practice, the more it means that modern approach to the preschool teachers’ professional development is applied in that preschool. Statistical analysis has shown no connection between the practice of creating a network of learning communities with any of the preschool teachers’ attitudes about their profession. However, in order to enable continuous improvement of the educational practices and culture of the institution of early education, special attention should be paid to the training of professionals in the institutions that form a network of learning communities. The importance of creating professional learning communities (networking of preschools) is also recognized in the Croatian NCEPE (2014), as an important form of professional training outside of the institution.

**Conclusion**

From the presented research results, it is observable that, in terms of the frequency of applying various forms of professional development, the surveyed preschool teachers usually attend ‘external’ professional development (e.g. organized by agencies, universities, associations …) and they are the least involved in conducting action research, reflective practicum, and creating professional learning communities. In terms of the preschool teachers’ perceptions of professional development, the respondents are mostly inclined to attitudes that affirm the importance of thinking and reflecting about their own practice and joint research by all professionals within the institution of early education. Based on the results of the Pearson correlation coefficient, we conclude that the modern attitudes of preschool teachers towards their profession and professional development are associated with the modern approach to professional development as one of the dimensions of the preschool culture, in the sense of orienting preschool teachers towards continuous learning and exploring their own practices. Based on the aforementioned, we can conclude that the hypothesis about the connection between the culture of institution focused on continuous research practices and the contemporary attitudes of teachers about their profession and professional development has been confirmed.

The only statement that somewhat ‘blurs’ the obtained image is the traditional attitude of preschool teachers towards obtaining concrete answers to problems encountered in practice while participating in seminars and lectures. Even though based on the degree of the respondents’ inclination, the stated attitude is at the very centre within the seven offered statements about the perception of the preschool teacher profession and professional development, its statistically significant positive correlation has been found with the frequency of the practice in three of the seven offered contemporary forms of professional development. One of the probable explanations can be found in the still widely present practice of preschool teachers’ professional development precisely through lectures and seminars. Therefore, in order to achieve a positive culture of institutions of early education, and to raise the level of the quality of life and education of children in these institutions, certain changes need to be made, and ‘basic changes (in the educational system) mean a complete (internal) transformation of institutions of education’ (Fullan, 2005, p. 2). One of the key ways in which we can achieve this is through a transformation of professional development of preschool teachers because, as it has already been discussed in this paper, professional development of preschool teachers
teachers is an important lever in changing the entire culture of the institution. In this sense, changes in the concept of professional development of preschool teachers from an informational to a transformational level are very much possible if the institutions are given certain freedom in the ways how they organize and design professional development of preschool teachers and other professionals.

Notes

1. According to the Preschool Education Act (1997), the minimum level of education required for preschool teachers in the Republic of Croatia is a completed professional/undergraduate degree (Bachelor). In 2010, the Faculty of Teacher Education in Rijeka launched the first university graduate (Master) studies of early and preschool education in the Republic of Croatia, which, among other things, raised the possibility of vertical advancement on the scale of the education system (doctoral studies). The new level of qualification (Master of early and preschool education) has also been recognized and listed in the amendments to the aforementioned Act of 2013 (art. 24, para. 4).

2. In Croatia, the term ‘aunt’ is a common, colloquial term for teachers of early and preschool-aged children, which speaks about the still-present perception of the preschool teacher profession in Croatian society as those people who only ‘take care of children while the parents are at work’. Only in recent years has this situation begun to change by raising the level of formal education of preschool teachers from the undergraduate (three years) to the graduate level of studies (five years) and a greater focus on the importance of a professionalization of the preschool teacher profession.

3. Dancey and Reidy’s (2004) categorization of strength of correlation: Perfect 1; Strong 0.7–0.9; Moderate 0.4–0.6; Weak 0.1–0.3; and Zero 0.

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