

SERVICE-LEARNING IN PROBLEM SOLVING IN THE COMMUNITY: PRE-SERVICE TEACHERS' REFLECTION ON THEIR EXPERIENCE

Jurgita Lenkauskaitė
Šiauliai University, Lithuania

Abstract

The article substantiates the relevance of service-learning in the study process of pre-service teachers solving problems relevant to the community. The multifaceted benefits of service-learning for both learners and the community have been highlighted. Pre-service teachers treat the service-learning experience as unique, allowing them to get closely acquainted with professional reality, develop collaboration outside the university, understand the importance of change in education in response to the needs of society and the extent of their responsibility for this change.

Keywords: *service-learning, pre-service teacher, problem solving.*

Introduction

The issue of the education of pre-service teachers under the conditions of rapid societal change is particularly relevant. Already Fullan (1998) pointed out that every educator must strive to become an effective mediator of change. In order to meet the needs of modern society, the pre-service teacher must be ready to contribute to its change and solving emerging problems with his/her performance. It can be noticed that the education of pre-service teachers cannot be imagined only during the studies in the classroom. The combination of theory and practice ensures that teachers are introduced to real professional activity. However, the usual pedagogical practices are quite strongly focused on the consolidation of the theory in the real context, they are structured and defining the problems to be solved. In the search for an alternative way of educating pre-service teachers that allows learning to be closely linked to a challenging field of future professional activity, service-learning is increasingly being used in some countries (Hildenbrand & Schultz, 2015; Chambers & Lavery, 2012; Mergler, Carrington, Kimber, Megan, Bland, & Boman, 2017; Tice & Nelson, 2019, etc.).

Service-learning actualizes education as a factor of societal change. By learning in this way, pre-service teachers not only develop didactic skills that are important for their profession, but also reflect on their profession as solving the problems that are important to

society, especially to the school community. Thus, problem-based learning is also closely linked to service-learning. In the works of researchers of the last decade, it is also possible to find a number of cases analysing the integration of problem-based learning into the modern education of pre-service teachers (Baysal, 2017; Barron & Wells, 2013; Murray-Harvey, Pourshafie, & Reyes, 2013, etc.). The connection between service-learning and problem-based learning envisages that pre-service teachers are deeply involved in the analysis of problems important to the community, explore the real professional context, take on and overcome the challenges that arise in it. It should be emphasized that problem-based service-learning has great benefits not only for learners, but also for the community with the members of which pre-service teachers collaborate.

It should be noted that traditionally trained pre-service teachers face significant difficulties in applying innovations in their work after graduation. Service-learning is not only an important way of educating pre-service teachers themselves. It is also significant as an educational innovation, after experiencing which pre-service teachers will be prepared to apply it to their students, developing their citizenship skills, promoting a responsible approach to societal problems and their solving. In this way, it is possible to prevent a trend that researchers (see Strahley & D'Arpino, 2016) observe and fear that many young people will grow up without understanding the privileges and responsibilities of citizens in a free society and without acquiring the habits of responsible living.

For pre-service teachers, in order to understand the significance of their education and become aware of their role in society, the reflection on their experience becomes very relevant. Although much attention is paid internationally to the application of both service-learning and problem-based learning in teacher education, there is a need to adapt educational innovations to the socio-cultural context of a particular country (Vandzinskaitė & Ruškus, 2008). Referring to these insights, the article aims to analyse what experience pre-service teachers of one Lithuanian university gain during service-learning in solving problems relevant to the community and how they reflect on it. Reflection in this case helps students preparing to become teachers to better master a new way of learning, to critically think over their experience, and for the researcher it serves as a method to obtain important information to achieve the aim of the research.

The object of the research is the experience of service-learning of pre-service teachers in solving problems in the community and its reflection.

The aim of the research is to analyse what experience pre-service teachers gain during service-learning in solving the problems of the community and how they reflect on it.

Theoretical background

Traditionally, every profession is characterized by certain foreseen operations, the main purpose of which is to standardize practice (Blackbourn, Bunch, Fillingim, Thomas, Schillinger, & Dupree, 2011). However, looking at the specifics of the profession of the teacher of today, the constant uncertain and unforeseen situations he/she faces, it must be acknowledged that a person preparing for this profession must learn not specific operations, but acquire the ability to deal with uncertainty, look at problem situations positively and constantly analyse them creatively, with the help of all stakeholders to look for a consensus.

In searching for the ways how to educate a teacher who would be able to respond to the needs of the community and, as Fullan (1998) points out, to be a mediator of change in society, the focus shifts to educational strategies such as service-learning and problem-based learning.

Solving unstructured problems, which is emphasized as an advantage of problem-based learning, often poses challenges for students, as their regular academic learning content has greater clarity and structure. According to Savery (2006), problem-based learning is a student-centred approach to learning that enables learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a particular problem.

Service-learning ensures two important aspects in the education of pre-service teachers – academic learning and service in solving problems relevant to the community. Barnes (2016), referring to other scholars, notes that reflection helps students to combine theory and the service-learning experience. It provides a better understanding of both academic content and society. The service-learning projects help pre-service teachers to combine the experience gained in the classroom with that gained in a real, complex community having its own needs. Service-learning and problem-based learning are based on the ideas of pragmatism and the insights of Dewey (2013), in which education and a democratic society are closely linked.

Teachers' democratic engagement is recognized as an endeavour to improve their curricula (Strahley & D'Arpino, 2016). Pre-service teachers during service-learning gain important experience necessary in the development of civil society. The authors express concern that our education system does not pay enough attention to this. According to them, if the trends continue, many young people will grow up without understanding the privileges and responsibilities of citizens in a free society and without acquiring the habits needed to live responsibly. Civic engagement is characterized by the fact that its participants act as mediators of democratic change in the community. It is observed that pre-service teachers feel a great responsibility in solving the problems of the community. Strahley & D'Arpino (2016) revealed that the experience of the service-learning project has promoted the civic thinking and authentic, memorable learning for all its participants.

Analysing the good practice of the education of pre-service teachers, it has been identified that service-learning, as a way of experiential learning, enriches students' preparation for their professional pedagogical activity (Iyer et al., 2018). Hildenbrand & Schultz (2015) noticed that service-learning helps to educate teachers who are able to work with different children, to interest each child. Pre-service teachers acquire the knowledge and master the tools needed "to educate the whole child in an era of 21st century demands" (Strahley & D'Arpino, 2016, p. 82). This leads to the conclusion that pre-service teachers during service-learning solve the problems that are relevant to today's education and related to working in a heterogeneous group, learn to take into account the various needs of children and respond to them.

Service-learning also serves to develop the values of pre-service teachers (Iyer, Carrington, Mercer, & Selva, 2018). It has been observed to help pre-service teachers gain a deeper understanding of values such as empathy, civic responsibility, social justice and impartiality. Pre-service teachers who have participated in the service-learning projects have expressed further interest in becoming involved in the social welfare system by serving those in need (Hsiung, 2015). According to the author, standard textbook answers cannot solve practical problems in the real world. Through service-learning, pre-service teachers learn about dishonesty, injustice, and inequality in the real world, what changes their values and encourages activism. This experience gives teachers enough courage and motivation to take responsibility for a variety of educational situations.

Pre-service teachers who participated in the service-learning project learn to solve problems in circumstances beyond their control. As a result, these pre-service teachers rely not only on their knowledge and skills, but also on their self-confidence. It is noticeable that it

is always important for the teacher to be prepared (Hsiung, 2015). Thus, pre-service teachers need to be able to step out of their comfort zone. Already Piaget (1972) observed that learning occurs when learners face a challenge that transcends their knowledge, a cognitive conflict. Consequently, if the mismatch between what is known and what is not known promotes real learning, then problems are seen as an important stimulus for improvement. In a safe classroom environment, pre-service teachers have little experience of what it means to solve authentic problems inseparably linked to their future professional activity. Dewey (2013), a representative of pragmatism, assigned a key role to problems in the educational process.

As noted by Jia, Jung, & Ottenbreit-Leftwich (2018), one of the advantages of service-learning is satisfaction with teaching and the sense of empowerment. While other approaches in the professional sphere, such as pedagogical practices, are most focused on teaching technologies, service-learning projects provide other added values as well, such as studies focused on collaboration and problem solving, refining the needs of the community. The feeling that one can help others, contribute to the change of their life, allows one to feel good, to understand the value of one's profession not only in the narrow context of the subject taught. According to the research cited by the authors, service-learning projects have a positive impact on both pre-service teachers and their mentors in schools.

Pre-service teachers who have implemented the service-learning projects often agree that this was the most difficult aspect but also the most meaningful one of what they have learned and practised (Strahley & D'Arpino, 2016). Kaschak & Letwinsky (2015) revealed that pre-service teachers who participated in the service-learning project demonstrated pride in the meaningful work they have done and gained greater self-confidence and self-assurance in similar situations in the future. The service-learning experience has encouraged many pre-service teachers to become more interested in service-learning as part of their teaching. The fact that many participants of the service-learning projects become interested in this idea and want to apply it in their teaching activity ensures that: education can be a factor not only of the continuity of society, but also of its change.

Service-learning is inseparable from the experience of communication and collaboration. Very much attention is paid to this in the theory of pragmatism. Dewey (2013) calls formal education in the institution superficial. According to him, communication has an educational significance, helps to gain more and more diverse experience, ensures a common level of understanding. Formal education in an institution alone becomes remote and dead or abstract and bookish. During service-learning, the involvement of both community members and learners is manifested, connections in the community are strengthened, joint decisions are made, and consultations are held to create and improve the work result (Kaschak & Letwinsky, 2015). Solving real problems not only shows pre-service teachers the close connection between theory and practice, but also allows them to supplement their textbook knowledge with new insights, to experience that learning is possible from various sources.

With great attention to pre-service teachers' living through the service-learning experience, delving into the meaning and significance attached to it, the field of phenomenology is also entered. Representatives of this philosophy view learning as an authentically lived-through and interpreted experience (Penkauskienė, 2016). During service-learning, learners are encouraged to constantly reflect on their experiences (Mažeikis, 2007). It helps pre-service teachers to develop critical awareness, to experience the meaning of learning. Morality also plays an important role in phenomenology. "The application of phenomenology in the educational process strengthens moral attitudes and the development of social skills" (Duoblienė, 2006,

p. 29). Thus, from a phenomenological perspective, it is important to analyse the change in values experienced by pre-service teachers in the service-learning process, the experience of intersubjectivity. Experience gained from collaborating and serving in the community, reflecting on it, becomes an essential learning resource for pre-service teachers.

Methods and organization of the research

The article analyses the experience gained by pre-service teachers who have studied through the service-learning method and its reflection. The service-learning method was implemented in Šiauliai University (Lithuania) in the spring semester of 2020 in one teacher training study programme. The service-learning project was implemented as a part of the study subject *Didactics of Ethics. Practice*. After theoretically getting acquainted with the didactics of ethics, the importance of solving ethical problems and the service-learning method, pre-service teachers collaborated with the members of various school communities. Students identified problems emerging in the communities, demonstrated their initiative in analysing and solving them. The service-learning project was offered to pre-service teachers as a way when they get acquainted with their real professional context closely, experience new challenges, have the opportunity to solve authentic, unstructured problems, and become aware of the teacher's responsibility for societal change. During this project, pre-service teachers faced a very unexpected challenge not only for them but for the entire community of education. When the global pandemic due to the outbreak of the Covid-19 virus was announced, the start of distance learning provided unique opportunities for pre-service teachers to contribute to the changing educational process and made it clear how important it is for the teacher to be always ready for change and to be able to become its mediator.

During service-learning, students-pre-service teachers were encouraged to reflect on their experience. The research presented in the article used the final semi-structured written reflection of pre-service teachers, preparing which they reflected on the service-learning process that took place, the experience gained, and the possibilities of continuity. The choice of the analysis of pre-service teachers' reflection for the research was based on the view that reflection can be a very powerful tool to allow pre-service teachers to see reality from a critical point of view (Hsiung, 2015). The research sample consisted of 20 pre-service teachers who studied in the service-learning way and provided reflections on their experience in writing.

In accordance with the research ethics, the research participants were introduced to the aim of the research and their confidentiality was ensured. The presentation of the survey results does not mention the names of the informants, but only the codes (e.g., I 5 – informant five).

The analysis of the research data was based on the principles of phenomenology and hermeneutics, emphasizing both the importance of the meanings constructed by the research participants and the researcher's interpretations based on her experience and knowledge. The object of the qualitative research based on a phenomenological strategy is the informants' knowledge of their experiences, the construct of their experiences (Bitinas, Rupšienė, & Žydzūnaitė, 2008). The field of hermeneutics as the interpretation of biblical texts gradually expanded and it became much more widely applied for the interpretation of various texts (Smith, 2007). Conducting the analysis of the research data it was referred to one of the most important ideas of hermeneutics – the hermeneutic circle. The interpretation of the text went from part to whole and back until one meaning was refined, not hindered by internal contradictions. When analysing the research data, in this way it was important to find a consensus of interpretations. Interpretation is finished when the meaning of individual topics

is harmoniously integrated into the whole of the text. Conducting hermeneutic analysis, the autonomy of the text, the meanings and semantic nuances revealed in it are important. It is also recognized that the interpreter is a co-author in the creation of meanings and not an impartial observer (Kvale, 2009).

The authors (Juodaitytė & Savickas, 2013), who analysed the application of the hermeneutic method in modern science of education, substantiate that “it is not so much data collection and observation that becomes important for science as the search for theoretical models allowing the research data to be properly explained and interpreted with regard to the situation” (p. 24). The ideas of pragmatism and critical theory, which well substantiate the research object under analysis, referring to the researcher’s understanding and experience, have been mostly employed for the interpretation of the data of the research presented in the article. This method of analysis is also based on the belief of Jackson & Mazzei (2012) that in interpreting the results of qualitative research it is worth using the already identified philosophical concepts and thus allow theories to work. The theory of pragmatism, emphasizing learners’ experience, active learning, implementation of democratic principles in the educational process, etc., is undoubtedly significant in applying the service-learning strategy and analysing the experience gained during its application. Dewey, a representative of pragmatism, is seen as the ideological founder of service-learning (Mažeikis, 2007). The reflections of pre-service teachers analysed in the research also presuppose the need to use critical theory. The authors who analysed the application of service-learning (Mažeikis, 2007) relate reflection to the student’s ability to critically analyse the activity of him/her as a subject of experience. Reflecting on the new service-learning experience enables students’ critical awareness. The insights of critical theory create conditions for interpreting the experiences reflected on by students, identifying learning alternatives and designing changes in the educational process.

The research results and their analysis

A meaningful experience of service-learning in solving real problems

The pre-service teachers, in whose studies service-learning has been implemented, have noticed many benefits of such learning, especially determined by the opportunity to contribute to solving real problems in the community. The informants analysed extensively that the service-learning **experience allowed** them to **develop their values**:

Service-learning promotes personal values and beliefs (I 18).

First of all, the application of this method teaches to help, to give without expecting a return, for the absolute benefit of the addressee (I 3).

I experienced an inner benefit because I did it without wanting anything in return (I 5).

<...> it reinforces a sense of help and care for others (I 6).

<...> only selfless help and cooperation for the sake of learners can both help the student to unfold and discover his/her good qualities and the learner to observe an excellent example (I 7).

The informants, reflecting on their values revealed during service-learning, pay the highest attention to selfless concern for community members. The research results under analysis confirm the idea of pragmatism that learning is primarily related to active performance, gained experience. It should be emphasized that theoretical considerations alone are not

enough in the field of value development. The representatives of critical theory emphasize that it is necessary to abandon the methods that perceive morality and ethics as cognitive components of knowledge and try to transfer them to other people in an argumentative way. On the contrary, education is always perceived as activity (Volkers, 2008). Dewey (2013), revealing his theory of morality, quotes the proverb: “it is *not enough* for a *man* to be *good*; he *must be good* for something” (p. 224). It is the principle of moral life in society, which states that society functions successfully when some of its members are active in caring for others, in providing particular assistance. During service-learning, pre-service teachers developed values by actively participating in the life of the chosen community, contributing to the solution of its authentic problems.

Service-learning complements regular classroom studies with new aspects that are important to the community. This is reflected by pre-service teachers as giving the meaning to the **experience they have gained and are gaining**:

Service-learning is a strong learning experience <...> it helps to connect what is observed and experienced in the community with one's academic studies, which ensures a link between the understanding of service activity and learning (I 6).

By serving the community you can feel useful, your work makes a lot of sense to the school community (I 7).

We were solving the problem of bullying that is relevant today. Bullying among children is very common in Lithuania, so we wanted to contribute to solving this issue (I 1).

The essential difference of the activity is that the activity in the classroom is based on theoretical knowledge, possibly a simulation of social situations <...> the activity in the community is real conditions, real circumstances and real people, so it is already becoming an absolutely high-quality professional experience and it makes you grow as a future professional <...> (I 3).

The service-learning experience, described by pre-service teachers as “strong”, defines its uniqueness in the study process. Pre-service teachers have gone through this experience as qualitatively different from traditional classroom studies. This is close to Dewey's (2013) insight that formal education in an institution alone becomes remote, dead, abstract and bookish. The representatives of the theory of pragmatism noticed that in order for learners to reveal their possibilities in the educational process, it is necessary to change the learning process, allow learners to actively participate in it, consider alternatives, reflect on the meaning (Garrison, Hickman, Neubert, Reich, & Stickers, 2004).

Pre-service teachers notice that their activity becomes meaningful when they can contribute to solving relevant problems. This enabled the research participants to feel useful. Reflecting on the consequences of one's own activity is one of the essential requirements formulated for learners by the theorists of pragmatism. Garrison et al. (2004) express this position of pragmatism through a biblical thesis: you will be known by your fruit. During service-learning, learners realize that their activities make sense when they deliver positive results to the community.

Pre-service teachers reflected on the experience of **active learning** as opposed to the traditional passive teaching process:

<...> this method is far more useful than the method of “accumulating” theoretical knowledge while sitting in the classroom (I 5).

<...> theory can be forgotten, but the activity I delivered will always remain in my memory, because it was dominated by discussions, during which even more diverse things are discovered, even more interesting ideas develop (I 10).

it is possible to see the real situation, participate in it and learn from it (I 17).

Analysing the reflections of pre-service teachers, it is possible to use the idea of Freire (2000), a proponent of critical theory, to equate traditional education with “banking” education, and to contrast the latter with problem-solving learning. Traditional – “banking” – education, accumulating knowledge and hoping that it may be needed someday, often makes people even more passive by adapting them to the world they already receive (Freire, 2000). Such education should be highly criticized when the importance of learner-centred studies and the analysis of real world problems in the study process are recognized. The absence of critical thinking and doubt allows simply to go with the flow avoiding obstacles but also not seeing the point. Problem-based learning, which was considered the opposite of Freire’s (2000) “banking” education, is related to the active role of the learner, the construction of knowledge. The in-depth nature of problem-based learning and the superficial nature of “banking” education is emphasized.

The service-learning experience of pre-service teachers was also related to **understanding the importance of challenges in learning**. Students name the difficulties they encountered in their new study activity. It is reflected as an experience that has allowed to overcome one’s limitations, to cross the comfort zone, to improve, to always be ready for change conditioned by new circumstances:

The assignment of didactics of ethics was probably the most difficult of all the assignments I have had so far during all four academic years. <...> In my opinion, such a method should be applied to students preparing for pedagogical work in all lectures. Because during it we would gain even more valuable experience working with children (I 2).

Through service-learning we become more open to new challenges <...> (I 18).

It must be acknowledged that the activity in the classroom is more comfortable, providing more psychological security. When “going out” to the field of practice, sometimes all the knowledge disappears and situations are encountered that need to be managed, when it is necessary to have a “backup option”, because the first one does not work and even on the contrary – causes resistance, irritability, etc. (I 3).

Initially, my teacher and I had decided to make a quiz about Lithuania’s freedom, independence, etc., but when such a situation arose – quarantine, during which students learn remotely, the idea had to be changed. <...> There was an important sudden change of teaching to distance teaching, which I encountered for the first time, I had to rethink everything (I 5).

We also arranged what would be necessary at the moment, in what area we could help the teacher and facilitate her involvement in distance teaching. <...>

A really very useful experience was that as a teacher I always have to be ready to teach children under any conditions (I1).

The students reflected on their unique experience related to distance teaching due to the Covid-19 outbreak, noticing how quickly a teacher needs to be prepared for change. In an attempt to adapt to the situation, pre-service teachers changed their plans, analysed new material, and sought to provide as much assistance as possible to the community, for which the new situation was also unforeseen. The reflections by pre-service teachers, in which the importance of problems in learning is recognized, are close to Piaget's (1972) observation that learning occurs when learners face a challenge that transcends their knowledge, a cognitive conflict.

The reflection on the service-learning experience also responds well to the ideas of pragmatism, according to which it is necessary to adjust to the real context and authentic circumstances in the learning process. The representatives of pragmatism, when talking about problem solving, are not inclined to be satisfied with any result. Instead, they support the efforts to achieve a reasoned and practically effective, viable construction of reality (solution to the problem). A real situation, a field of authentic practice limits constructions and methods of their creation, because they are governed by interests, successes and failures, communication in the routine practice of communities and in institutions (Reich, 2004). Education must be understood as a way of reconstructing social relationships so that people have the opportunity to respond adequately to a changing world (Brinkmann & Tanggaard, 2010).

The Importance of Collaborative Experience in the service-learning

The uniqueness of the service-learning experience also manifests itself in the fact that students got acquainted with new people, non-traditional actors of the educational process, who had a strong impact on their learning. Pre-service teachers reflected on the **experience of intersubjectivity** when the attempt is made to understand the experiences of other individuals and to carry out activities on that basis:

Of course, it is necessary to mention that the responsibility was shared with the class teacher: it was coordinated with her and she was consulted during the preparation of the activities (I3).

At the beginning we experienced discomfort because we were viewed with suspicion, we had to earn the trust of the community. We had to employ our communication skills. We were learning to work in a team, we were developing responsibility, we understood the importance of our work, we were learning to express our creativity (I1).

This forces us to push ourselves out of the comfort zone, because, so to say, we are already used to our lecturers and course friends, and communication with strangers is completely different (I9).

I realized that cooperation with colleagues, community members, students can make the educational process more interesting, more high-quality, more original. Sharing ideas and experiences between different people can create an excellent result (I4).

In pre-service teachers' reflections on their experience there is the insight that the ability to collaborate becomes a resource for solving community problems. In order to build good social relationships, it is important to know the *Other*. Actions are related to intersubjectivity because they take place within the framework of a certain agreement or indicate the need for a new agreement when the actions no longer comply with the previously established order. The representatives of the philosophy of pragmatism define the relationship between reality and community as reciprocal. The reality (in this case – problem solving) depends on the self-determination and agreements of the cooperating people. Interpretations that emerge from collaboration do not reflect reality, but construct it (Stikkens, 2004). Therefore, pre-service teachers notice that collaboration with different people provokes originality, creative solutions.

Collaboration is not static as a result of the teacher's abilities, but takes place as a process. During service-learning, it manifested itself as mutually beneficial for both pre-service teachers and the community, based on **democratic principles**:

I received useful information from the educator who willingly shared her good practice. <...> I had the opportunity to discuss with educators, provide my suggestions, observations, ideas. <...> The educator, I think, also gained good experience, during which she also found out and learned useful things from young and enthusiastic students (I 4).

Our communication was rather informal, thanks to such communication we can freely express our opinion, experiences, suggestions and insights (I 8).

<...> it is an indescribable experience, during which you have the opportunity to meet various educators, talk to them, learn from them, gain wisdom, gain new knowledge, and most importantly – you can help them. <...> I shared my experience and knowledge gained abroad while participating in the Erasmus+ programme (I 12).

Pre-service teachers reflect on collaboration as based on democratic relationships. The representatives of pragmatism (especially Dewey, 2013), who analysed the close links between democracy and education, revealed that democracy is not only a form of state governance, but of social life in general. Democracy can grow more effectively when the interaction takes place not only inside the social group focusing on the main interests in one local community. It provides that people also become competent to perceive and accept different perspectives and interests when interacting with other groups.

The necessity of cooperation emphasized in the educational process guarantees the opportunity to create, arising from the understanding that each person knows different things and has a unique experience. The representatives of pragmatism (e.g., Hickman, 2004), in acknowledging the importance of epistemic diversity, generally rely on two theses: the value of each opinion is relative from some special perspective; no perspective is so privileged to be the only one or above the others. Thus, the education of pre-service teachers takes place not by taking over knowledge from more experienced colleagues, but by sharing knowledge and thus expanding it. In the analysed case, both community members and pre-service teachers shared their experiences, thus expanding their knowledge, creating social interaction, and on the basis of it solving problems relevant to the community.

The need for the continuity of service-learning

Fullan (1998) considered a teacher who serves the *status quo* rather than pursuing purposeful change a traitor. Pre-service teachers who reflect on the service-learning experience are in favour of its **development opportunities and continuity**:

<...> partners should be sought for this task not only in one school but also in others (I 2).

In my opinion, the shortcoming of the project was perhaps more activities were needed involving not only the learners but also the rest of the community (I 14).

<...> educators, both current and future, need to constantly communicate and collaborate, learn together, share thoughts, experiences and ideas (I 20).

The view expressed by pre-service teachers that the service-learning strategy needs to be applied more widely involving more communities and their members reflects the thesis of the theory of pragmatism about building democratic relations, enabling pluralism of thinking, diversity of interpretations. The aspiration of pre-service teachers to expand the experience, not to close to one approach is also in line with the statements of critical theory. According to Foucault (1999), truth is not free by its nature because its production is permeated by power relationships. According to the philosopher, it is necessary to understand that alongside other systems of elimination there exists a will to the truth. A one-sided approach, a constraint on discourses supports existing power mechanisms. According to Duoblienė (2009), a critical look can help to liberate from them. Pre-service teachers gain the opportunity to develop critical thinking by using alternative educational methods, communicating with different people, and getting acquainted with the diversity of discourses.

Reflecting on the **service-learning** experience, pre-service teachers also identify the need for its **application in future professional activity**:

I want to express my joy that in the fourth year I can still learn something new and I will be able to apply it in my work <...> Using this method at school, I hope to help young people to become responsible citizens (I 6).

I think that in the future, working in an educational institution, I myself would also like to give students and pupils the opportunity to cooperate during various lessons and other activities (I 16).

The experience gained during service-learning allowed the research participants to understand the role of a teacher as a mediator of change, which they are ready to play in society. The research participants consider service-learning as appropriate not only for their own education but also for the education of their future students. The aspiration of pre-service teachers to contribute to the education of responsible citizens through the implementation of service-learning is a precondition for the development of a democratic society, the close links of which with education were widely substantiated by the representatives of pragmatism (see Dewey, 2013).

The reflected desire of pre-service teachers to enable the cooperation of various persons in the educational process reflects the relevance of theories emphasizing the emancipation of learners (such as pragmatism and critical theory). This provides an opportunity to realize

epistemic diversity in the educational process, to meet the need for learning from various sources, expressing the multiple benefits of service-learning.

Conclusions

Analysing the challenges pre-service teachers face today, it is observed that a person preparing for this profession must become a mediator of change in society, ready to deal with uncertainty and solving real problems. In order to meet these challenges, alternative ways of educating pre-service teachers are being sought. The link between service-learning and problem-based learning, referring to theoretical insights and analysis of good practice of the education of pre-service teachers, is presented in the article as a favourable perspective providing benefits for both pre-service teachers and society itself.

Pre-service teachers reflected on their service-learning experience as meaningfully lived through. They emphasized that this experience was very helpful in developing their values especially focused on selfless concern for community members. Solving authentic community problems allowed pre-service teachers to take on challenges, learn by being active, and experience the meaning of their activity.

The experience of cooperation with various persons, atypical actors of the study process was reflected on by pre-service teachers as another important aspect of the service-learning process. Collaboration with community members whose problems were addressed with the participation of pre-service teachers, allowed them to identify the importance of getting to know other people and of relationships built democratically, the necessity of combining different experiences in solving problems creatively. Collaboration during service-learning was reflected on as mutually beneficial for both pre-service teachers and community members.

Reflecting on their service-learning experience, pre-service teachers spoke in favour of the opportunities of its development and continuity. The expressed view that the service-learning strategy needs to be applied more widely, involving more communities and their members, reflects the need to build democratic relationships and enable critical thinking. The participants of the research reflected on service-learning as suitable not only for their own education, but also for the education of their future students as responsible citizens. Such self-determination expressed by pre-service teachers can be seen as a commitment to become the mediators of change in society, which is one of the most important challenges they face today.

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SERVICE-LEARNING IN PROBLEM SOLVING IN THE COMMUNITY: PRE-SERVICE TEACHERS' REFLECTION ON THEIR EXPERIENCE

Summary

Jurgita Lenkauskaitė, Šiauliai University, Lithuania

The issue of the education of pre-service teachers under the conditions of rapid societal change is particularly relevant. Already Fullan (1998) pointed out that every educator must strive to become an effective mediator of change. In order to meet the needs of modern society, the pre-service teacher must be ready to contribute to its change and solving emerging problems with his/her performance.

In the search for an alternative way of educating pre-service teachers that allows learning to be closely linked to a challenging field of future professional activity, service-learning is increasingly being used in some countries. Service-learning actualizes education as a factor of societal change. By learning in this way, pre-service teachers not only develop didactic skills that are important for their profession, but also reflect on their profession as solving the problems that are important to society, especially to the school community. Thus, problem-based learning is also closely linked to service-learning. The link between service-learning and problem-based learning, referring to theoretical insights and analysis of good practice of the education of pre-service teachers, is presented in the article as a favourable perspective providing benefits for both pre-service teachers and society itself.

For pre-service teachers, in order to understand the significance of their education and become aware of their role in society, the reflection on their experience becomes very relevant. Although much attention is paid internationally to the application of both service-learning and problem-based learning

in teacher education, there is a need to adapt educational innovations to the socio-cultural context of a particular country (Vandzinskaitė & Ruškus, 2008). Referring to this insight, the article aims to analyse how pre-service teachers of one Lithuanian university reflect on their authentic experience gained during service-learning in solving problems relevant to the community. Reflection in this case helps students preparing to become teachers to better master a new way of learning, and for the researcher it serves as a method to obtain important information to achieve the aim of the research.

The analysis of the research data was based on the principles of phenomenology and hermeneutics, emphasizing both the importance of the meanings constructed by the research participants and the researcher's interpretations based on her experience and knowledge. The object of the qualitative research based on a phenomenological strategy is the informants' knowledge of their experiences, the construct of their experiences (Bitinas, Rupšienė, & Žydžiūnaitė, 2008). The field of hermeneutics as the interpretation of biblical texts gradually expanded and it became much more widely applied for the interpretation of various texts (Smith, 2007). The application of one of the most important ideas of hermeneutics – the hermeneutic circle – in qualitative research envisages that the interpretation of a text goes from part to whole and backwards, until a unified meaning not hindered by internal contradictions is refined. When analysing the research data, in this way it was important to find a consensus of interpretations.

The ideas of pragmatism and critical theory, which well substantiate the research object under analysis, referring to the researcher's understanding and experience, have been mostly employed for the interpretation of the research data. This method of analysis is based on the belief of Jackson & Mazzei (2012) that in interpreting the results of qualitative research it is worth using the already identified philosophical concepts and thus allow theories to work.

Pre-service teachers reflected on their service-learning experience as meaningfully lived through. They emphasized that this experience was very helpful in developing their values especially focused on selfless concern for community members. Solving authentic community problems allowed pre-service teachers to take on challenges, learn by being active, and experience the meaning of their activity.

The experience of cooperation with various persons, atypical actors of the study process was reflected on by pre-service teachers as another important aspect of the service-learning process. Collaboration with community members whose problems were addressed with the participation of pre-service teachers, allowed them to identify the importance of getting to know other people and of relationships built democratically, the necessity of combining different experiences in solving problems creatively. Collaboration during service-learning was reflected on as mutually beneficial for both pre-service teachers and community members.

Reflecting on their service-learning experience, pre-service teachers spoke in favour of the opportunities of its development and continuity. The expressed view that the service-learning strategy needs to be applied more widely, involving more communities and their members, reflects the need to build democratic relationships and enable critical thinking. The participants of the research reflected on service-learning as suitable not only for their own education, but also for the education of their future students as responsible citizens.

Corresponding Author's e-mail: jurgita.lenkauskaite@su.lt