The Requirements for the Modernization of Basic Professional Education Program (BPEP) of Teachers Training in Accordance with the Professional Standard of the Teacher: Proposals for the Implementation of the Activity Approach in Teachers Training

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The article discusses the issue of modernizing Teacher Education Programs so that they will comply with the requirements of the Professional Standard for Teachers. The authors single out two major objectives as far as professionalization of the Teacher Education Programs is concerned. These objectives aim at achieving the overall goal of enhancing prospective teachers’ practical competence by means of general and higher education institutional networking (school-university partnerships) and shaping research competencies in prospective teachers. The research competencies may enable prospective teachers to maintain continuous professional growth (to reform their professional modes of action) with the help of mini-research incorporated in their professional practice and reflection of it. The authors provide a rationale for the use of the activity approach in teacher education and outline the place of this approach in the context of the “practitioner-researcher” and the “reflective teacher” approaches. The article delineates requirements to designing Basic Professional Training Programs (BPTP) for Teachers from the perspective of the activity approach (which the author adheres to) and professionalizing these programs in line with the Professional Standard for Teachers.

Keywords: modernizing Teacher Education Programs, Professional Standard for Teachers, activity approach, practitioner-researcher, reflective teacher, independent assessment of qualification.

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The supreme goal of modernizing BPTPs consists in adjusting Teacher Education Programs so that they comply with the Professional Standard for Teachers (and other educators) [6; 5].

To this end, graduates of a teacher education program should be ready to performing their professional activity in the classroom in compliance with the structure and the content of their occupational functions as provided by the Professional Standard [4]. In other words, their teaching activity implies mastering professional (occupational) actions, which are described in the Professional Standard, and competencies and knowledge that are prerequisite for their execution. In this sense, modernizing BPTPs implies, first and foremost, professionalizing teacher education, i.e. establishing a specific model of the practice-focused teacher training whose main educational outcome is the ability to design one’s prospective professional activity in line with the norms elaborated by the professional community (that is, the Professional Standard). This, in its turn, ensures that school students enjoy fully-fledged education matching the provisions of the Federal State Education Standard for General Education (FSES GE) [2].

It is important to mention that an oversimplified understanding of this goal carries three significant risks that the process of modernizing teacher education programs needs to account for. The first risk concerns the “paraprofessional” quality of the programs that are being developed (in Russia, this phenomenon is called “feldsherism” and has an expressed negative connotation; a feldsher is a health care professional who received secondary vocational education and fulfills functions of a paramedic). Paraprofessionalism here means that research and theoretical preparation of prospective teachers are compromised for the sake of a pragmatic and methodological approach to teacher education which mostly focuses on methods, procedures and specific techniques of the teaching practice outside the context of analyzing the students’ and class’ development and deep expertise in the subject of teaching.

The second risk relates to decomposing the teacher’s professional activity — which is complex in composition and integral in form and structure — into several professional actions which constitute this activity. Exposing prospective teachers to “drilling” so that they may be able to execute nonintegrated professional actions correctly, prevents them from developing the ability to design and plan students’ well-structured and efficient learning in the classroom, let alone to account for frequent changes in the learning environment, and a vast variety of students’ individual features and special learning needs.

Finally, the third risk to be accounted for when professionalizing teacher education programs, consists in the fact that the developed instrumental readiness to perform professional actions in line with the Professional Standard, alone can hardly guarantee that graduates of teacher education programs will become efficient teachers. Teaching as a profession represents activity of a professional group (community) relying on complex social networking (teacher — student, teacher — other teacher, teacher — parent, teacher — management). Engaging in this activity means joining this Community of Practice [13], and therefore it means adopting the totality of “cultural means”, including norms, rules and values mediating this activity and communication therein. Thus, the process of educating prospective teachers should be viewed as a gradual process of entering this Community [13].

In order to achieve the aforementioned goal of professionalizing teacher education programs, one needs to fulfill a number of essential objectives (that have remained unmet both in teacher education and higher education in general).

*The first objective* (according to the terminology of FSES for Higher Education (FSES HE)) [3] involves alternating the specifications for BPTP outcomes through adjusting the current list of competencies to be mastered...
by prospective teachers so that they match competencies envisaged by the Professional Standard for Teachers. Although this objectives seems quite simple from the perspective of modernizing BTPTs as such, a potential challenge to meeting it grows out of the need to differentiate between levels of competence in managing professional actions and Professional Standard competencies, and to single out the level of the beginning teacher’s competence matching a qualification of a graduate of teacher education programs.

On the one hand, efforts to accomplish this objective fall outside the scope of the project of modernizing BTPTs and become part of the Professional Standard testing project. On the other hand, in order to meet this objective, the professional community needs to develop a wide convention regarding teacher education program graduate’s, experienced teacher’s and expert teacher’s competence (and, correspondingly, their level of competence in managing professional actions)\(^1\).

The second objective involves changing BTPT’s design to meet the goal of professionalization. Accomplishment of this objective pertains to the transition from the subject-based BTPT design with an academic discipline representing a major educational unit to the modular design of BTPTs. The Russian teacher education has historically adhered to the subject-based BTPT design, and although a formal transition to the modular BTPT design coincided with adopting FSES HE in terms of the two-tiered model of education (Bachelor-Master) having been reflected in FSES for all educational fields (according to the Consolidated Groups of Qualifications/Fields for Education and Pedagogical Sciences), in practice, a module remains a formal and quite artificial combination of academic disciplines with related study objectives. In reality, an academic discipline continues to be the basic structural unit of most BTPTs. This is evidenced by the fact that it is academic disciplines (rather than modules that are comprised of these academic disciplines) that remain a vehicle for shaping competencies. This situation is illustrative, first and foremost, of the fact that BTPT design is knowledge- rather than activity-based. If an actual educational outcome is knowledge, or rather teaching information, rather than professional actions or complex skills (requiring synthesis of knowledge and interdisciplinary competencies), then an academic discipline may as well be the main structural unit of a training program. If the goal of modernization is the transition to developing complex occupational functions and professional actions (as envisaged by the Professional Standard for Teachers) embracing a whole range of knowledge and competencies developed across various disciplines, then it is an integrated module informing the choice of educational content that should become the main structural unit of training programs.

The second aspect of migrating to the actual modular design of teacher education programs presupposes changing the way in which modules are structured and filled with content. As in most current BTPTs based on FSES-3 and FSES-3+ a module is just a formal combination of theoretical disciplines that are relatively autonomous and traditionally present in curricula [3], the transition to the module as a unit for developing occupational functions and professional actions that BTPT is aimed at seems to be unfeasible if the module design limits itself to a combination of various, solely theoretical disciplines necessary for learning a professional action. It is impossible to master occupational functions and professional actions solely in the university classroom. A module should include appropriate practical experience that

\(^1\) When implementing the Teacher Education Modernization Project, institutions of higher education involved will have to develop their proposals as to which level of competence graduates of teacher education programs need to demonstrate in three consolidated educational fields (namely, Pedagogy; Psychology and Pedagogy and Special Education (Defectology)).
aims less at illustrating theory than at imposing the problem of performing a professional action and practicing it within a specifically arranged laboratory and learning environment (laboratory practicum) and during field practice at a “clinical” site (in a real educational setting).

Thus, modernizing teacher education programs should bring about the transition to the modular design of teacher education programs. At that, each module represents an integrated practical and theoretical unit aiming at developing a certain pattern of professional actions meeting specifications of the Professional Standard for Teachers. The module educational content should embrace such theoretical disciplines or their branches, the totality of which may enable trainee teachers to develop necessary knowledge, skills and professional actions pertinent to a specific occupational function (or functions) of prospective teachers.

At Module Stage 1, trainee teachers study the module’s content using the Introductory Internship to familiarize themselves with professional actions to be shaped; to engage in classroom teaching on a case-by-case basis, and to formulate a list of theoretical questions and teaching issues (problems) that should be addressed so as to efficiently perform a professional action (occupational function) that is being developed.

During Module Stage 2 (when addressing the identified teaching problems), trainee teachers learn the theoretical content of the module as represented by an interrelated network of various module units or academic disciplines, knowledge of which is prerequisite for successful implementation of a professional action (actions) that becomes the ground for bringing these disciplines together. Importantly, such module design implies that dealing with the module’s theory, trainees actively engage in autonomous work (including group work). Thus, studying the module’s theory resembles seeking answers to the questions posed during Module Stage 1 (the Introductory Internship). This search takes form of solving specific teaching issues and problems formulated at the end of Module Stage 1, and promotes trainees’ awareness of the theory that they are learning (this allows for overcoming a major weakness of most of current BPTPs, namely, the gap between theory and prospective professional practice).

Module Stage 3 may include training of relevant techniques, methods and approaches — i.e. specific modes of professional action — within a specifically designed learning and laboratory environment (laboratory practicum, laboratory). This stage aims at modeling professional actions, that is to say, studying and learning them in a model environment (and in this sense, this environment is simpler than reality).

Finally, during Module Stage 4, trainees test learned professional actions in a real educational setting which is a prerequisite constituent of a module (“a clinical practicum site”). This process unfolds in the context of specifically arranged reflection procedures. The main objectives of this Module Stage (field practice) are analyzing trainees’ competence in performing some professional action within a real educational environment; supervising trainees’ performance of this action and assessing the level of the action’s maturity.

The content of Module Stage 5 concerns differences between performing professional actions in a model situation (laboratory practicum) and in a real environment (field practice at a practicum site) (in particular, failure or inefficiency of this action within a real educational setting and with real students). This stage involves psychological and pedagogical research that aims at analyzing causal relationships and challenges in implementing professional actions2.

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2 The research stage may take place before practical testing of the action that is being trained (in order to understand conditions of its performance).
The Educational Module Structure and Training Stages

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| 1  | Introductory Internship | 1. Demonstrating patterns of professional actions incorporated in one or several occupational functions;  
                               2. Occasional engaging in student teaching. Attempts to accomplish professional tasks independently;  
                               3. Formulating a list of teaching issues and problems.                                           |
| 2  | Theory              | 1. Studying the Module’s theory as a vehicle for solving teaching issues and problems;  
                               2. Developing modes of professional action (the instrumental aspect);  
                               3. Training specific modes of professional action in the training and laboratory environment (practicum). |
| 3  | Field Practice      | 1. Performing supervised professional actions at a clinical practicum site (a real educational setting).                                                |
| 4  | SSR                 | 1. Analyzing efficiency of professional actions and related challenges;  
                               2. Completing mini-research to analyze causes of the challenges and failures; designing a new professional action.     |
| 5  | Theory and Reflection | 1. Group and/or individual reflection of one’s actions based on SSR findings;  
                               2. Developing a new mode of professional action (awareness of how a professional action may be implemented taking into account various options). |

This type of psychological and pedagogical research that focuses on solving a specific teaching issue in the classroom, improving professional actions and teaching as such (rather than on obtaining new scientific evidence like in academic research) represents a new type of the students’ (i.e. trainee teachers’) scientific research (SSR) within teacher education programs and an important mechanism of integrating theory, practice and science within the framework of an educational program’s integrated unit (see Chart 1). Furthermore, adding SSR to every BPTP module allows for eliminating the aforementioned risk of “Para-professionalism”.

In addition to improving a professional action following scientific investigation of the conditions for its performance or causes of its failure, inclusion of the research block in the module helps trainee teachers develop a reflective attitude to the professional action that is being trained. Discussing conditions for and modes of their professional action with peers and supervisors enables trainees to understand — rather than just “to adopt” — the professional action in the framework of professional opportunities, that is, to integrate it into their theoretical, professional and personal frame of reference.

Thus, the main focus of modernizing teacher education programs so as to improve their design relates to migrating to the modular design of teacher education programs (with inclusion of the Introductory Internship, field practice and SSR in each module). This transition implies that the content and study objectives of each module aim at mastering relevant professional actions (occupational functions) as envisaged by the Professional Standard for Teachers.

Implementation of this approach presupposes a significant increase in the amount of trainees’ practical experience (up to 60—80 uniform credit points) (in Bachelor’s degree programs). 30—40 of these uniform credit points are included as thematic practical experiences pertaining to the content of modules — the distributed practice blocks (during Years 1—3 of Bachelor’s degree programs) — and are prerequisite for a fully-fledged acquisition of the professional actions. At least, 30 uniform credit points are allocated to long-term
field practice (internship) during Year 4 of applied Bachelor’s degree programs. The field practice (Internship) — which takes place at a practicum site organized in terms of school-university partnerships — aims at creating conditions for trainees to practice teaching as an integral activity in accordance with the program’s goals and under the supervision of experienced teachers employed with the educational setting.

The educational content of this long-term field practice (Internship) embraces:
1. Synthesizing learned occupational functions and professional actions into integral professional activity;
2. Becoming part of a complex social networking system in a real educational setting; mastering relevant cultural tools (including sign tools) which mediate communication and collaboration (shared activity) within this setting (“entering a Community of Practice”) [16]; and learning within this community when relating both to a supervisor and other community members and educational process participants;
3. Gathering relevant empirical data that may give grounds for scientific reflection of one’s teaching experience and may become a subject of psychological and pedagogical research aiming at improving one’s profes-

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Fig. 1. Distributed Practice Program

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3 Resources in Master’s Degree Programs will be redistributed in a similar way to enhance the graduates’ practical competencies with the help of arranging thematic and module-wise Introductory Internship during Year 1 of Master’s degree programs and long-term (at least, one semester) field practice (Internship) at a practicum site during Year 2 in applied Master’s degree programs.
sional practice and designing a personal theory of teaching.

Redistributing the program resources so as to increase the amount of practice (which includes adding practice to professional modules)\(^4\) and SSR may be carried out by means of enhancing trainees’ independent work; shifting the focus of lecture courses in some theoretical academic disciplines and using up-to-date electronic educational resources and teaching techniques (including blended learning) rather than by means of a “mechanical” reduction of the theoretical training hours.

This highlights a fundamental need for replacing the reproductive approach to theoretical education of trainee teachers with alternative approaches. The reproductive approach in most cases implies that lecturers retell handbooks and manuals (usually written by other authors) and assess whether trainee teachers memorized the information presented during the lecture. This approach, which dominates teacher education programs, brings about no meaningful educational outcomes as far as the theory in question is concerned, and moreover it places a high burden on the budget and demonstrates extremely low cost-effectiveness.

Thus, the objective to be accomplished involves both an increase in the amount of practical experience so as to professionalize teacher preparation, and fundamental reformation of its theoretical constituent. Theory pertinent to professional practice cannot be learned without engaging in activity. At the same time, the activity approach goes beyond analyzing and modeling professional practice and implies such a way of studying theory which involves, first and foremost, trainees’ individual and group work with this theory under the supervision of university teachers, rather than university teachers’ work consisting in retelling this theory. The transition from university teachers’ “speaking” to lectures envisaging a methodological view on the theoretical content and to analyzing trainees’ individual (group) work allows for both reducing corresponding hours (resources for the theoretical course) and improving the quality of the theoretical training significantly.

The third important aspect of modernizing BPTPs so as to adjust them to the Professional Standard for Teachers is changing specifications concerning the conditions for implementation of BPTPs going through modernization. Taking into account the scope of modernization, there may be a need for a fundamental revision of the specifications, realization of which will result in a quantum leap in the quality of practical, research and theoretical (including methodological) teacher training and ensure trainee teachers’ readiness to perform their professional practice in line with the Professional Standard.

As a rule, BPTP specifications cover the following areas: HR; Materials Management and Methodological Support; Financial Arrangements.

In our opinion, a significant revision of the three sections may be needed to ensure fulfillment of the aforementioned goals of modernization. Materials Management and Methodological Support should be extended to include specifications as to trainee practical experience arrangements (including arrangements concerning networking with institutions of general education and secondary-level vocational education), and SSR arrangements. Materials Management in BPTPs should also provide for using distance education resources (including blended learning) and improving trainees’ academic mobility. This section should give a detailed and very specific account of special laboratory practicum experiences (that enable prospective teachers to train core occupational functions) and mechanisms of organizing

\(^4\) It is worth mentioning that such an increase in the hours of practicum is consistent with similar requirements to trainee teachers’ practical experience in most European countries and the USA (implying at least 1,500 hours of practical experience [19; 17; 15]) and the national education policy of the Russian Federation [1].
school-university partnerships to provide for fully-fledged development of professional actions in the context of supervision.

**Requirements Concerning Practicum Design**

The research literature on teacher education singles out two major approaches to designing practical training for prospective teachers: (1) teaching specific professional actions, i.e., actions that are efficient in a specific and familiar (from practice) environment (“Curriculum” — the Anglo-American tradition of education characterized by planning and pursuing specific outcomes that comply with specific requirements, e.g., of a professional standard) and (2) “Bildung” (the German and Scandinavian tradition of teacher education focuses more on the advanced theoretical — rather than narrow pragmatic — training wherein the trainee teacher’s personality emerges and takes shape, which includes creation of his/her “personal theory of teaching”) [14]. Depending on the differences in these approaches, the role of “the practicum” (that is, the practical training in general) differs dramatically. In the first case, this role consists in adopting and learning a pattern of technically refined professional actions that are efficient in their subject area. In the second case, this role involves co-involvement in professional practice, joining the Community of Practice wherein theory (what), and techniques and modes of action (how) merge every time into a new and unique action or solution in the context of uncertainty and lack of clear rules (which is more about “jazz rather than playing the notes”).

When designing the practicum, it is important to ensure that the main stakeholders (trainee teachers, school supervisors and university professors) share expectations and the aforementioned theoretical approaches to the practicum [14].

The practicum enables trainee teachers to obtain sufficient experience for developing professional thinking, the ability to make decisions in new situations with the help of specifically arranged reflection.

According to Dewey (1904) [23], there are two main training approaches: the apprentice (apprenticeship) model, within which a mentor (teacher) is a model whose behavior and actions are imitated by a trainee; and the laboratory modeling within which trainee teachers observe, analyze and discuss various types and models of professional actions of real teachers, gradually making their own conclusions as to what works and when, that is, developing their professional wisdom and personal theory of teaching. The first model of practice-based learning (or rather, training) needs a supervisor or a mentor who models the best professional practices. The second approach (which has much in common with “Bildung”) requires a supervisor who is able to arrange for reflecting and discussing variable experience. Both approaches may complement each other to a large extent [14].

Practical experience and practicum are the first attempt to enter professional activity in the supportive and supervised environment. The quality of practical experience will largely determine whether a person will succeed in this practice in the future. Analyzing professional experience as a system of a subject’s interactions with objects and other people serves to prepare trainee teachers to the future. However it is just impossible to prepare trainee teachers to all possible situations in the classroom during the practicum, therefore trainees need to be equipped with tools that will help them to identify priorities and make decisions based on their professional judgment when facing contexts that they had no chance to address in their learning. Thus, the main goal of the practicum is to establish the professional frame of reference, professional thinking, that is to say, essential metaprofessional competencies enabling people to act efficiently in a new environment of uncertainty, rather than to teach future teachers a certain efficient but limited pattern of “clichés” that fail to work under new circumstances.
In some sense, this goal coincides with the general education goal according to the activity approach — “To form the ability to learn autonomously” — as envisaged by FSES GE [8]. Therefore, the real goal of the practical training in teacher preparation is to form the ability to carry out autonomous professional development, that is, to improve one’s work in new and unique environments.

It means that the practicum design should go beyond adoption and imitation of professional actions. The practicum design should be based on solving teaching problems (issues) aiming at the development of a general mode of professional action that may be used to derive a variety of unique and environment-specific professional actions. Trainee teachers need more than to learn how to teach their subject well in a particular classroom under the supervision of an experienced mentor teacher. They need to learn how to design a lesson so that they may teach a large class and a small class; a class at an “elite” school and a class with migrant students; a special needs class, that is to say, any class. The general content of the practicum should ensure that having learned this content, trainee teachers will be able to accomplish a wide range of professional tasks.

**Practicum Design Aspects**

Designing the practicum that will meet the aforementioned goals and address the aforementioned issues involves identifying and utilizing a number of core elements:

1. The school-university-partnership networking arrangements with a general education institution, which includes designing criteria for selecting educational institutions for inclusion in the partnership; performing the selection process; certifying an institution as a partner in the teacher education program; contracting; designing and coordinating teaching and methodological materials, and the program of the practicum at a partner’s site (the program should aim at developing professional competencies as envisaged by the module’s objectives and the Professional Standard specifications of the basic level of teacher competencies); designing appraisal materials for assessing levels of trainees’ competencies;

2. Arrangements for coordination of cooperation with a partner educational institution; assessing levels of trainees’ professional competencies; recording the competencies obtained in a graduate’s e-portfolio; arranging for scientific reflection of the grounds for trainees’ professional actions being developed; setting objectives and performing SSR for the purpose of coping with difficulties arising when implementing professional actions. Arrangements as to theoretical debriefing concerning the results of the practical experience within a module that is being studied.

Interaction between universities and general education institutions based on the school-university partnership approach implies revising a traditional approach to teacher education viewing school as university’s “younger brother” whose social status and “weight” are inferior to those of university as far as the institutional contribution to teacher preparation is concerned. From this perspective, school is usually perceived, first and foremost, as a place that provides an illustration of theoretical knowledge shaped by university [23].

Understanding teachers’ professional expertise as, first and foremost, practice-based knowledge (tacit knowledge) implies a fundamental change in the attitude to school’s role in educating prospective teachers. This change draws on awareness that it is impossible to prepare teachers for professional practice outside school, as school provides models of real professional actions and techniques, and introduces trainees to teachers who own competencies that trainees are developing. Thus, school becomes a crucial source of essential constituents of profession-focused training programs and may be viewed as university’s equal partner (maybe even the principal partner) in a school-university partnership (Zeich-
ner, Darling-Hammond, Coehran-Smith) [23; 10; 9].

The process of selecting such school as a feasible and fully-fledged university’s partner in the teacher education program should focus on verifying whether this school possesses model actions that are to be developed in trainee teachers in terms of educational objectives of a certain module (modules) or the long-term field experience.

The second element of this selection process is appraisal of a potential partner school’s human resources so as to identify whether this school has experienced teachers who own both relevant professional competencies and social competencies needed for collaborative work with colleagues (with trainee teachers in this case).

If these resources are available at a candidate school, it should design a Competence Development Practicum Program addressing the content of a module being studied. This Practicum Program should both include a checklist of professional actions and professional communication styles to be mastered, and describe major types of teaching issues (problems) to be met by means of these professional actions. It should describe forms of independent, collaborative (with a supervisor) and group (with peers) training experiences during which these teaching issues will be addressed. The Program should outline knowledge and competencies that trainee teachers have before the practicum and upon its completion, and ways of assessing trainees’ achievements as to development of relevant competencies. The Program’s HR section should list all teachers who are involved in trainees’ supervision and describe the whole social network involving trainees and other stakeholders of the educational process. Having designed the Practicum Program aligning with the professional module’s objectives, a candidate school submits it for consideration and approval to a university’s academic council (or a relevant university department). Approval of the Practicum Program by the university means that this candidate school becomes an important and fully-fledged partner of the university in shaping trainee teachers’ professional competences, and assumes a significant share of responsibility for this process. The parties document these responsibilities, which includes contracting for a school-university partnership. The contract provides for funding the partner’s practicum-related activities within the limits established by the budget allocated to preparing a teacher trainee proportionally to the share of competencies to be developed from their total number.

Collaborative implementation of the program includes two types of assessing professional competence levels. The first type is a supervisor’s expert assessment when a supervisor evaluates whether demonstrated professional actions (as provided by the corresponding checklist based on the module’s content) comply with the Professional Standard specifications, and records his/her expert opinion in trainee teachers’ e-portfolio following the results of the practicum. The second type of assessment relies on a professional competence test designed by the university independently of the school and based on the Professional Standard. If the majority of trainees who practiced at the partner school’s site succeed in completing this test, it means that the quality of the practical training there meets the Professional Standard. Alternatively, if the majority of trainees fail the test (given that the test has an appropriate design), it means that either the designed program or its implementation fail to meet the Standard, and the contract with the partner may be terminated prematurely.

Intern’s, School Supervisor’s and Coordinator’s Work

Interns’ (trainee teachers’) work within the framework of thematic (module-based) field experience under the supervision of experienced mentor teachers (supervisors) involves participant observation of model professional
actions as performed by supervisors and other teachers; participation in the lesson’s analysis; lesson planning (individual and in a group of other interns); joint teaching with a supervisor; autonomous teaching; checking students’ individual assignments and tests and a multitude of other professional actions. During the module-based practicum, interns guided by supervising teachers need to proceed from performing an action under complete supervision through performing under partial supervision (in some cases, in collaboration with the supervisor) to autonomous performance of this professional action.

Multiple studies of effectiveness of supervision for the practical teacher preparation [24; 7; 20] have shown that even experienced teachers who supervise trainees need to complete specific training in order to fulfill this function efficiently. Selecting candidates for this position involves assessing their professional competencies relating to work with students, as well as professional and personality-related competencies that supervisors need for working with interns. Even a very good teacher may fail to become a supervisor unless he/she has relevant supervision-related competencies. An important condition of supervisors’ efficient work with interns consists in a planned — rather than ad hoc — mode of their action aligning with a practicum program designed. Designing this program involves formulating a checklist of teaching issues (problems) that interns will be exposed to during their practicum. Solving these problems results in mastering a number of professional actions meeting requirements of the Professional Standard for Teachers. Interns’ activity-based practicum program may be designed by a supervisor (or by a group of supervisor candidates) during their continuing professional development training (CPD training) (under university faculty’s guidance). This CPD training should precede arranging the module-based practicum for interns. The practicum program designed by a supervisor should be defended in front of a committee consisting of experienced teachers and university faculty. The goal of this evaluation is to verify whether interns who complete this program will indeed develop relevant professional actions.

Implementation of the module-based practicum needs to account for the risk that supervisor’s (a school teacher’s) functions and a practicum liaison officer (a coordinator, who is a university faculty member) may overlap. Lack of differentiation between supervisors and coordinating faculty’s professional tasks will automatically result in unnecessary duplication of their work with interns; inconsistencies between their actions in relation to interns and, eventually, conflicts between them.

Bearing in mind the aforementioned goals and content of the practical training in teacher preparation, we believe that it may be reasonable to differentiate between the roles of supervisors and coordinators so that supervisors bear responsibility for development of model professional actions by somewhat setting a pattern for interns’ professional actions, and coordinating university faculty’s objectives concern ensuring that interns carry out reflection on their actions and scientific investigation of any issues hindering these actions, and facilitating interns’ awareness of model actions’ position within the framework of potential professional actions, which includes acting in a changing environment (Chart 2).

**Research Training Design Specifications in Teacher Preparation**

Implementing the aforementioned requirements focusing on enhancing the practice-related component of teacher preparation (which includes both learning standard professional actions (skills) and developing a more general ability to shape efficient professional actions in the context of uncertainty and new contexts emerging during their implementation) is impossible without changing the role, the site and the content of the research training of prospective teachers. This focus on the research training relates to an attempt to implement the

SSR in Teacher Professional Development

Challenges that teachers face when performing their professional actions, bring about a need to perform “incorporated” scientific research as a relevant stage of reforming professional actions. Thus, a reflective practitioner who is capable of autonomous development and improvement of professional actions so that he/she may address the changing environment, turns out to be, first and foremost, a practitioner-researcher who reforms his/her actions using the scientific method — rather than a process of trial and error — which includes scientific analysis of any evidence obtained, hypothesizing on causes of challenges and synthesizing a new, more refined professional action.

Professional Action Cycle of Development

Teachers who practice teaching that aims at developing students’ ability to learn autonomously inevitably become learners just like their students. That is to say, developmental education results in improving the whole system of activity including both students’ and teachers’ activity, whereas the traditional (knowledge-based) model of education results in no one’s (neither students’, nor teachers’) development.

The goal of preparing teachers who will be capable of developing students’ ability to learn autonomously may be accomplished if this teacher preparation ensures that prospective teachers themselves develop both the ability to perform professional actions in compliance with the Professional Standard, and the abilities to autonomously develop their own professional actions and professional practice using relevant research competencies (a practitioner-researcher) and to reflect on their own professional actions (a reflective practitioner).

Both constituents of the teacher’s competencies ensure his/her ability to reform his/her professional practice under new circumstances (different from his/her training environment). We believe that teacher preparation aiming at accomplishment of this goal takes full advantage of the cultural-historical and activity approach to teacher education.

In order to fulfill the aforementioned goal (namely, shaping the ability for autonomous professional development), one needs to accomplish two closely related objectives of

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<td>— University coordinator establishing a checklist of teaching problems.</td>
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<td>— integrating theory as a vehicle for solving teaching problems;</td>
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<td>Stage 3</td>
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<td>— shaping professional actions (from demonstrating patterns through joint performance to quasi-autonomous performance).</td>
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<td>— developing a general mode of professional action.</td>
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teacher preparation: shaping research competencies and ensuring that trainees reflect on their mode of professional action.

Whereas during the first stage of professionalizing teacher preparation, prospective teachers train major modes of professional action as provided by the Professional Standard in a model environment, the second stage of professionalizing this preparation — the transition to the quasi-autonomous field experience — accentuates inefficiency of some of these actions, and the need arises to identify causes of this inefficiency and to convert a standard professional action into a unique action accounting for its environment. The responsibilities of university liaison officers (coordinators) within this process consist in making arrangements concerning investigation of the causes of challenges, reflection (group and individual) and designing a new improved action by interns. An important outcome of this stage is more than formation of a professional action that matches a new environment better: it brings about awareness of this action’s position within the framework of other potential actions. This allows for moving from “drilling” a limited number of actions to a deeper and more meaningful orientation of teachers within the area of their professional practice, to the ability to change and develop their professional actions.

**Activity Approach to Teacher Preparation**

Prospective teachers’ evidence-based thinking integrates their theoretical and practical expertise into a personal theory of teaching. In order to achieve this, trainee teachers...
need to obtain some experience of reasoning, hypothesis verification and decision-making in the course of solving teaching problems [14; 8].

Essentially, two levels of teachers’ professional competence may be singled out — namely, basic (elementary) and general.

The basic (elementary) level, which can be mastered by any adult working with children, relies on the use of “natural” and spontaneous understanding of teaching [12; 8]. It is the level of professional competence that results from training that targets learning the subject matter and mastering teaching skills. Almost all prospective teachers achieve this level and it is this level of teaching competence that is described by a well-known quote — teachers are not born, rather, they are cultivated.

Nevertheless, Wilson, Floden and Ferrini-Munday [22] have shown that although training courses focused on such pedagogical content exert a significant positive effect on trainees’ achievements, they fail to promote further progress in the long term (a threshold effect).

Essentially, further improvement of the trainees’ outcomes in ongoing teacher education may take place only if there is a transition from the basic level to the general level of teacher training which goes beyond skills training and learning the subject matter of teaching, somewhat distancing itself from routine teaching practice and making extensive use of discussion, thinking, debate and other types of research-related activities [21].

This level of teacher preparation involves utilizing meta-cognitive and decision-making processes.

The research-based approach to teacher preparation means indeed the transition from the elementary-level training to the general-level preparation.

In our opinion, professional activity in both teachers’ professional practice and preparation of prospective teachers may be implemented in two modes, namely, natural and cultural. The natural mode of action in teachers is almost equivalent to that of any adult who attempts at teaching. This mode relies on spontaneous understanding of students, teaching and learning. The sole difference between lay adults and elementary-level qualified teachers is that the latter have some pedagogical expertise (they know the subject matter and the course program and have class management skills) and learned patterns of teaching which they mastered during the practicum.

In contrast to the natural mode, the cultural mode of professional competence excludes conventional and spontaneous understanding of teaching (shared with any lay adult). The cultural mode implies that teachers make use of evidence-based methods of educational decision-making relying on scientific investigation of a teaching problem and research-based judgment; make decisions based on analyzing and testing hypotheses, and reflect on their mode of action. In other words, the cultural mode of teaching relies on different professional thinking. In this context, professionalizing teacher preparation means shaping the cultural, that is, culturally mediated, mode of teacher’s professional action, which includes evidence-based professional thinking, educational decision-making and reflection as its prerequisite mechanism.

Preparing teachers who are ready to practice this mode of teaching, goes beyond enhancing the practical training and mastering a number of standard professional actions. It includes considering these actions with the help of the cultural tools of the scientific method so as to understand whether they are at all feasible in a given environment. This process constitutes the second prerequisite (research-based) stage of professionalizing teacher education programs. The research-based approach to teacher preparation and practice is comparable to the evidence-based medicine approach relying on evidence-based guidelines and protocols, best professional judgment and decision making grounded in research evidence.
Thus, from this perspective, three main models of teacher education may be singled out:

**Traditional.** Theoretical expertise (knowledge of the subject matter and teaching methods) as the main knowledge about the teacher’s professional practice — transition to the field experience as an illustration of knowledge obtained at university. The source of knowledge is theory. The provider of this knowledge is the university faculty. School is a means of illustrating knowledge obtained at university. This approach is inefficient as far as the practical preparation of prospective teachers (especially from the perspective of the Professional Standard for Teachers) is concerned.

**Programs of quick entry into the profession** — (an alternative approach) teaching expertise is, first and foremost, teachers’ practical expertise in specific teaching methods and educational decision-making. Therefore, the main source of this knowledge is a teacher and school. Furthermore practical preparation of prospective teachers should be carried out in school and at school sites. The role of university is supplementary rather than leading. Theory is important but it does not determine the essence of teacher preparation. This approach fails to be efficient in the context of trainees’ changing educational needs and fails to ensure one’s professional development — development of one’s own practice (including development based on reflection of one’s experience).

**The Activity Approach:** both components are important for preparing prospective teachers, however they have different value. School (as university’s partner in BPTP implementation) is responsible for shaping the ability to perform professional actions, and university is responsible for reflection of these actions and shaping professional thinking, the ability to implement professional actions in new environments (due to the use of the scientific method) and to reform one’s professional actions; and, eventually, shaping the ability for autonomous development of trainee teachers’ professional actions. That is, school is the main source of the practical expertise (including that of basic professional actions), and university is the main source of reflection and the ability to carry out autonomous professional development.

### Human Resources

Key figures at the first stage of professionalizing — shaping professional actions that comply with the Professional Standard — are mentor teachers (supervisors) who can use modeling, planning and analyzing professional actions of their interns to ensure development of the interns’ ability to perform these actions.

Key figures at the second stage of professionalizing dealing with shaping research competencies and the reflective attitude to one’s actions, are university liaison officers (coordinators) who ensure that trainees engage in group work, interiorize new sign-tools (scientific methods for assessing causes of challenges) and carry out group and individual reflection.

### Final Assessment of Teacher Preparation Quality

An essential mechanism of modernizing teacher education programs in line with the Professional Standard for Teachers consists in changing the content of the state final assessment of teacher qualification.

According to the Federal Law “On Education” (FL N273) [6], a Diploma of Higher Education (DHE) of a graduate of a Higher Education Program testifies both a person's academic degree (i.e. that a person has obtained higher education), and his/her qualification. However, whereas the level of education (usually, theoretical) may be assessed by means of the state final examination (SFE), assessment of a BPTP graduate’s qualification is almost lacking, and a qualification test for this type of programs is not envisaged by FL N273 (in contrast to graduates completing programs of vocational education). Thus, in practice, there
is no mechanism for assessing qualification of graduates' of teacher education programs, which inhibits employers from assessing the level of teacher candidates’ competence in terms of professional practice and especially professional practice that complies with the Professional Standard for Teachers. On the other hand, lack of the teacher qualification assessment system almost precludes assessing the quality of teacher education programs as it is practically impossible to understand whether a teacher education program succeeds in preparing prospective teachers for their future practice.

The aforementioned circumstances call forth the need for a major revision of the content and the process of the final assessment that should aim at assessing both knowledge obtained (which is the main object of assessment at the time) and all components that are relevant from the perspective of the Professional Standard (knowledge, competencies, and professional actions).

To this end, we suggest revising the content of SFE and amending the corresponding SFE Regulations and a corresponding chapter in FSES with a provision that SFE should include mandatory assessment both of knowledge and competence (skills, modes of action and methods), and readiness to performing professional actions. It is important to mention that maturity of professional actions may (and in our opinion, should) be assessed both during SFE and the practicum incorporated in the structure of all practice-focused modules. A record of the professional actions obtained in terms of the module should be made in the graduate’s e-portfolio, and the actions themselves should be assessed by a supervisor of the corresponding practicum. During SFE, which may include a special question assessing the level of the professional action maturity, graduates may be offered to solve a case aimed at testing professional actions and an occupational function in general.

SFE places importance on such SFE element as a qualifying paper (Bachelor’s degree) or a Master’s thesis (Master’s degree) which is traditionally associated with assessing graduates’ research competencies maturity level. Taking into account the discussion above regarding changing the role of SSR in profession-focused teacher education programs, it is worth mentioning that the subject of these graduate papers should allow for assessing graduates’ ability to carry out independent scientific research, or rather, scientific research which is incorporated in professional practice and the results of which ensure professional development, that is, they help to solve a teaching problem and build professional actions based on the scientific evidence obtained.

In conclusion, we would like to discuss the role of the independent assessment of qualification of teacher education program graduates. Institutionalizing the independent assessment of qualification (alongside with the changes in SFE process and content) is a key mechanism of modernizing teacher education programs which includes adjusting them to meet the requirements of the Professional Standard for Teachers (and other educators). It is the independent quality of such assessment carried out by professional associations or education regulatory bodies that seems to be of pivotal importance here. Implementing such independent assessment complies with the Presidential Orders [1] and prompts the model of transition from teacher education to teaching practice, to the level of most developed countries where this transition is regulated by the professional community and the state. In other words, teacher education program graduates obtain the right to practice following the process of independent professional certification (an examination which is independent of trainees’ alma mater) rather than on the basis of their diploma. This certification is carried out by a professional association or a regulatory organ in the field of Education. This state-/community-regulated access to professional practice which ensures graduates’ compliance with the Professional Standard
enables employers to hire only those teachers who are really ready to perform professionally at quite a high level. On the other hand, this mechanism allows for clearing the market of teacher education providers whose graduates consistently fail the professional examination which is based on the Professional Standard specifications.

References


Требования к модернизации основных профессиональных образовательных программ (ОПОП) подготовки педагогических кадров в соответствии с профессиональным стандартом педагога: предложения к реализации деятельностного подхода в подготовке педагогических кадров

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В статье обсуждается проблема модернизации программ подготовки педагогических кадров в контексте приведения их в соответствие с требованиями профессионального стандарта педагога. Автор выделяет две основные задачи профессионализации педагогических программ, направленные на достижение указанной цели – усиление практической подготовки будущих педагогов на основе механизма сетевого взаимодействия образовательных организаций общего и высшего образования (школьно-унiversityское партнерство) и формирования исследовательских компетенций будущего педагога, обеспечивающих его возможность осуществлять профессиональное развитие (перестройку своих профессиональных действий) на основе проводимого мини-исследования, встроенного в профессиональную деятельность и рефлексии их оснований. Автор обосновывает основные позиции деятельностного подхода в подготовке педагогов и показывает место этого подхода в контексте современных подходов «практик-исследователь» (practitioner-researcher) и «рефлексивный педагог» (reflective teacher). В статье сформулированы требования к разработке основных профессиональных образовательных программ подготовки педагогов на основе развиваемого втором деятельностного подхода и в контексте задач профессионализации таких программ в соответствии с требованиями профессионального стандарта педагога.

Ключевые слова: модернизация программ подготовки педагогических кадров, профессиональный стандарт педагога, деятельностный подход, практик-исследователь, рефлексивный педагог, независимая оценка квалификации.

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