Formation of Methodology Culture of Would-be Elementary School Teachers in the Context of Introduction of “New Ukrainian School” Concept

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Abstract: The article presents comprehensive analysis of the problem of formation of methodology culture of would-be elementary school teachers in pedagogical theory and educational practice. The problem of the formation of a methodological culture of future teachers of elementary school was studied by us from the standpoint of scientific approaches: cultural; axiological systemic; competent; person-activity approaches. It is established that the concept of "methodological culture of the teacher of elementary classes" is an integral part of the category field in the hierarchy of concepts: “culture”–“culture of the person”–“professional culture”–“vocational pedagogical culture”–“methodical culture”. The theoretical analysis of psychological and pedagogical literature allowed to carry out the pedagogical concrete definition of the concept “methodical culture of the teacher of elementary classes”, which is considered in the work as an integrative set of his professional-personal values and qualities, methodical competence and methodical skills, which allows creatively to carry out professional-methodical activity on the basis reflection, experience and self-development, taking into account regulatory requirements. Structure of methodology culture of an elementary school teacher has been shown as combination of components: value and motivational, cognitive and praxeological, personality and artistic, reflective and evaluational. Criteria, values for levels of formation of methodology culture of would-be elementary school teachers have been elaborated that reflect unity and connection of all structural components of the described phenomenon. Levels of formation of methodology culture of would-be elementary school teachers have been established in the process of professional training: adaptive-repetitive, reproductive, systemic-productive, integrative-creative. Efficiency of the model of formation of methodology culture of would-be elementary school teachers has been proved theoretically and experimentally, which consists of three interrelated units (theoretical and methodical, context and activity, resultative). Teacher's guides have been elaborated and introduced for formation of methodology culture of would-be elementary school teachers in the process of professional training.

Keywords: interculturalism; intercultural education; European competence; curriculum documents.

1. Introduction

Integration of Ukraine in world culture environment, reshaping of values and strategies of society development, which have led to modernization of national education, create new requirements for teacher’s personality, an elementary school teacher in particular, whose level of methodical culture has to correspond to requirements of the time in the context of reformation of elementary school education. Urgent need of Ukrainian society in new generation of competitive elementary school teachers who are able to react adequately to challenges of the time encourages pedagogical science and practice to search for effective forms and methods of forming their methodical culture.


2. Review of literature

Methodical culture is crucial for effective realization of professional activity for an elementary school teacher and the problem of its formation is actualized in the context of reformation of national educational system.

The problem of culture has been researched in different times, namely in the works by M. Bakhtin (1986), V. Bibler (1989), where human origin of culture was emphasized. The works by researchers E. Markarian (1983), V. Shadrykov (1998) elucidate the notion of “culture” as a specific way of human activity. “Culture” as a determining condition in the process of human formation as a creative personality was described by V. Bibler (1989), I. Isayev (2010).

Nowadays, a phenomenon of teacher’s culture is quite topical and is an object of research in works of numerous scientists:

– pedagogical and professional-pedagogical teacher’s culture was studied by H. Mykhalin (2004), V. Radul (2000) at el.;

– problem of pedagogical and professional-pedagogical teacher’s culture was studied by T. Tarasenko (2014), O. Tsiuniak (2015) at el;

– kinds of professional-pedagogical teacher’s culture were elucidated by various scientists, namely: emotional culture, culture of communication,

– elementary teacher (world-be teacher) was studies in the works of S. Dovbenko (2014), I. Palshkova (2009), T. Roman (2016) etc.

A few aspects of methodical culture were reviewed, namely I. Kniazheva (2014) dedicated her research to development of methodical culture in would-be lecturers of pedagogical courses in their master’s degree studies; T. Berezhna (2009) analyzed innovative methodical culture; A. Karachevtseva (2003) described some aspects of formation of methodical culture on the first stage of pedagogical education.

The interdisciplinary analysis of the problem under study that we have carried out proves that formation of methodical culture of would-be elementary school teachers is seen from the position of theory of values (Kahan, 1997); philosophy of culture (Matvyeyeva, 2005); theory of cognition (Lokk, 1960).

The problem of formation of methodical culture of would-be elementary school teachers has been researched from the position of methodical approaches: culturological, according to which methodical culture is reviewed through a complex of culturological notions (Sukhomlynskyi, 1977); axiological – as a system of pedagogical values (Ziaziun, 2009); systemic – as a complete formation (Kuzmyna, Rean, 1993); competence – as a combination of knowledge, abilities and skills (Kremen, Luhovyy, Liashenko et al., 2014); personality and activity – as an integral formation of personal qualities and professional activity (Leontiev, 1977, Rybalka, 1998)

Despite significant number of available scientific works and proper elaboration of various aspects of the problem under study by scientists, there is a lack of research which would focus on integral formation of methodical culture of an elementary school teacher in the process of professional training.

3. Design and methods

3.1. The aim of article

*Goal of the present article is* theoretical grounding and experimental testing of the model of formation of methodology culture of would-be elementary school teachers.
3.2. Participants

Experimental work was carried out on the basis of Yuriy Fedkovych Chernivtsi National University, Volodymyr Hnatyuk Ternopil National Pedagogical University, K. D. Ushinsky Southern Ukrainian Pedagogical University, Volodymyr Vynnychenko Central Ukrainian State Pedagogical University. At various stages of the study, 386 students (future teachers of elementary school) participated in the experiment. The sample is homogeneous.

3.3. Methods

With the purpose of investigating this problem we have used a complex of the following methods: theoretical: analysis, comparison, systematization of philosophic, psychological and pedagogical sources, legislative and normative-legal documentation; empirical: observation, questionnaires, testing, written surveys, expert evaluation; methods of mathematical statistics: calculation of numeric values with the use $\chi^2$ Pearson criterion; graphic: graphic images, tables.


4. The results of the research – statistic data and their interpretation

Outcomes of theoretical research

Methodical culture is important for effective fulfillment of professional activity for an elementary school teacher and the problem of its formation is actualized in the context of reformation of national educational system.

Interdisciplinary analysis of the problem research proves that formation of methodical culture of would-be elementary school teachers is viewed on from the position of theory of values; philosophy of culture (Matvyeyeva, 2005); theory of knowledge (Lokk, 1960).

On the basis of definitive analysis carried out by us it has been established that the phenomenon of “methodical culture of an elementary
school teacher” is a constituent of the category field in the hierarchy: “culture” – “culture of personality” – “professional culture” – “professional-pedagogical culture” – Methodical culture.

With the purpose of setting own definition of “methodical culture of an elementary school teacher” we have analyzed a series of research which describe this notion. In particular, N. Hrytsay (2012, pg. 3) explains methodical culture as a combination of formed general, special and specific methodical skills which are supported by knowledge acquired while studying individual subject, pedagogy, psychology, teaching methodology are connected with teaching this subject in educational system. While studying scientific and methodical culture, S. Kychkina (2008, pg. 27) defines it as a combination of a student’s scientific thinking, methodical knowledge, acquiring investigative skills etc.. In our opinion, the author did not take into account axiological aspect of culture. I. Kniazheva (2014) defines methodical culture of a would-be lecturer as a complete, personality formation seen in acquiring and reproducing traditions, values, which are reflected in content and ways of organizing pedagogical activity. Sometimes, methodological culture is understood as the ability of a teacher to build his own vocational and pedagogical activities on the basis of psychological and pedagogical knowledge and organize the activities of students. However, we think that the author overlooked values that are a key component for culture, as well as its artistic component.

On the grounds of the analysis conducted we define the notion of «methodical culture of an elementary school teacher» (Nikula, 2017) as a combination of his/her professional and personal values and qualities, methodical competence and methodical mastery, which allows to perform creatively professional-methodical activity on the basis of reflection, acquired experience and self-development with taking into account normative standards.

Structural components of methodical culture of an elementary school teacher include:
  * **value and motivational component**, which in the structure of methodical culture of an elementary school teacher is represented by a system of value orientations and professional-personal motivation, expresses acknowledged encouragement to performing professional-methodical activity and serves as a system shaping factor of dynamic formation of methodical culture of an elementary school teacher;
  * **cognitive and praxeological component** is represented by methodical competence and methodical mastery, synthesizes formation of theoretical knowledge with their implementation in practice, that is it is effective,
scientifically grounded application of the system of professional-methodical competences of pedagogy and teaching methods for teaching elementary school subjects in practical pedagogical activity;

- **personality and creative component** in the structure of methodical culture of an elementary school teacher is represented by professionally significant qualities and methodical creativity, which gives professional-methodical activity of a teacher expressive personality characteristics;

- **reflective and evaluational component** is characterized by ability in reflection and creative self-development, as well as ability in evaluating professional-methodical activity.

The described components characterize personality and activity constituents of methodical culture of an elementary school teacher and reflect their interdependence and interrelation with professional activity.

On the grounds of analysis of the State Standard, educational programs and curriculums of courses for would-be elementary school teachers training it has been established that formation of their methodical culture takes place through the system of studying professionally-oriented subjects and practical training. However, fragmentarily of content, forms and methods has been discovered regarding methodical culture of an elementary school teacher in the system of professional training.

With the purpose of detecting levels of formation of methodical culture of would-be elementary school teachers in the process of professional training, criteria and corresponding values have been defined for each component of methodical culture.

Criteria for value and motivational component of methodical culture of would-be elementary school teachers are: **system of value orientations** (markers: universal human values, professional values) and **professional and personal motivation** (values: students’ orientation on mastering methodical culture, interest in succeeding in professional-methodical activity, need in professional fulfillment, wish for career growth). Criteria for cognitive and praxeological component are: **methodical competence** (markers: knowledge of pedagogy and teaching methods of elementary school subjects, methodical literacy, methodical thinking); **methodical mastery** (markers: abilities to perform various kinds of professional-methodical elementary school teacher’s activities; model and resolve pedagogical situations; ability to present own pedagogical, methodical ideas and innovations). Criteria for personality and artistic component are: **professionally significant qualities** (markers: communicative skills, organizational skills, empathy, humaneness, mobility, goal-orientedness); **methodical creativity** (markers: ability to perform creative professional-methodical activity; expression of non-traditional way of
thinking; original resolution of pedagogical situations; ability to creatively process and produce new methodical ideas). Criteria for reflective and evaluational component are: *ability for reflection and self-development* (markers: self-discovery; ability to perform self-analysis of own professional-methodical activity; readiness to self-development); *ability to evaluate professional-methodical activity* (markers: ability to discover advantages and drawbacks of professional-methodical activity, analyze methodical materials, study and implement advanced pedagogical experience).

Levels of formation of methodical culture of would-be elementary school teachers have been established: *adaptive-repetitive*, which characterizes low expression of the phenomenon under research in would-be elementary school teachers; *reproductive*—present in would-be teachers with intermediate level of expression of methodical culture; *systemic-productive*—present in would-be elementary school teachers with quite formed components and markers of the described phenomenon; *integrative-creative* seen in would-be pedagogues with high level of methodical culture. It has been grounded that transition from previous to following level of formation of methodical culture of would-be elementary school teachers takes place through quantitative and qualitative changes in components of the described phenomenon.

For defining the level of formation of components of methodical culture in would-be elementary school teachers we have elected a complex of methodologies. Level of value and motivational component was defined with the help of “Evaluation of Personality Professional Orientation” by Ye. Rohov (1999) and “Studies on Motivation in Professional Activity” by K. Zamfir modified by A. Rean (2006). Formation of cognitive and praxeological component was defined with the help of tests for professionally-oriented subjects; expert evaluation and analysis of students’ pedagogical practice report documentation; copyright questionnaire “Methodical Culture of Elementary School Teacher”; copyright questionnaire “Self-Evaluation of Methodical Competencies”. Level of personality and creative component was diagnosed with the help of the following methodology: “Evaluation of Communicative and Organizational Abilities” by V. Syniavskyy and B. Fedoryshyn (2009). State of formation of reflective and evaluational component was detected with the help of the following methodologies: “Diagnostics of Reflection” by A. Karpov (2003) and “Inclination to Self-Development” by V. Maralov (2004).

On the grounds of ascertaining research, insufficient level of formation of methodical culture of would-be elementary school teachers has been detected in the conditions of traditional system of professional training.
at higher educational institutions, what has stipulated the need for elaboration and approbation of experimental model of formation of methodical culture of would-be elementary school teachers in the process of the said training.

Implementation of systemic approach to elaboration and grounding of the model has contributed to understanding it as an integral system of interrelated elements which function in accordance with selected approaches, defined principles aimed at achieving set goals and tasks. The model offered consists of three units (Pic. 1)

Theoretical and methodical unit defines goal, tasks, methodical approaches (axiological, culturological, systemic, personality and action, competence), principles (aiming educational process at professional-methodical activity; optimality of content, forms and methods of professional-methodical activity; variability and freedom of choice in methodical activity of a would-be teacher; implementation of professional-methodical activity of students on reflective ground) and components (value and motivational, cognitive and praxeological, personality and creative, reflective and evaluational) of methodical culture of would-be elementary schoolteachers. Content and activity unit includes: content, forms, methods aimed at formation of structural components of methodical culture of would-be elementary school teachers which are implemented consequently in the process of realization of familiarizing and stimulating; training and productive; creative and activity; reflective and analytical stages.

Resultative unit reflects criteria and levels of formation of methodical culture of would-be elementary school teachers.

For effectiveness of the described process the following pedagogical conditions have been grounded: creating educational environment aimed at formation of methodical culture of would-be elementary school teachers; improving content, forms and methods of educational process at higher educational institutions which presupposes formation of components of methodical culture; involving students into professional-methodical activity with the purpose of accumulation of own methodical experience and formation of their ability for self-development.

With the purpose of testing effectiveness of the model of formation of methodical culture of would-be elementary school teachers in the process of professional training a forming stage of pedagogical experiment was conducted, the experiment was carried out in accordance with elaborated program which presupposed stage-by-stage realization of updated content, forms and methods aimed at formation of each component of methodical culture of would-be elementary school teachers in the process of
professional training of would-be elementary school teachers by students majoring in “Elementary Education” included in the experimental group (EG) (195 people) within the process of studying professionally-oriented subjects and having pedagogical practice, as opposed to the control group (CG) (191 people) where professional training was conducted in traditional way.

Familiarizing and stimulating stage (1st year of studies) was aimed at formation of: system of value orientations and need for acquiring methodical culture; positive motivation to professional-methodical teacher’s activity and personal qualities necessary for its conduction; acknowledging role of methodical culture of would-be elementary school teachers. On this stage content of professionally-oriented subjects («Introduction to Major», «General Fundamentals of Pedagogy») was updated by adding topics which demonstrated role of methodic culture for effective teacher’s professional activity. Main forms of studies were: lectures, seminars, practical lessons, training «Motivation for Professional Activity of Would-Be Teacher», discussion board «What kind of teacher do modern pupils need?» with the use of methods of: individual and group talks, discussions, exercises («Coat of Arms of My Life Values», «Teacher’s Values», «Dream Stealing», «Treasury of Teacher’s Qualities», «Wishes»).

Training and productive stage (2nd year of studies) presupposed formation of: knowledge of the matter of methodical culture for elementary school teacher and its structural components; skills of organization and conduction of professional-methodical activity of an elementary school teacher; communication and organizational skills. With this purpose in mind, a special course on «Methodical Culture of an Elementary School Teacher» was introduced in content of professional training, course topics were added («Didactics»; «School Studies») which contributed to students’ getting familiar with the matter and components of methodical culture of an elementary school teacher. The following forms were used: discussion lecture, binary lecture, training «Pedagogue’s Communication Skills»; methods: exercises and games («Transcriber», «Acrowords», «Improvisation»), creative exercises «From A to Y», analysis of pedagogical situations, pedagogical lesson modeling, method of extra context operations with notions.
Pic. 1. Model of formation of methodical culture of would-be elementary school teachers
Creative and activity stage (3rd year of studies) was performed with the purpose of formation in students of: methodical competence and methodical mastery; skills of creative conduction of professional-methodical activity. On the said stage content of the courses was updated: «Pedagogical Mastery» and Elementary School Teaching Methods with taking into consideration State Standard of Elementary Education and modern methodical requirements to a teacher. Study process was organized in the following forms: visual lecture, problem lecture, workshop «Creative Teacher as a Prerequisite of Professional Success» with the use of the following methods: microteaching, pedagogical modeling, presentation, exercises («Express Lesson», «Wheel of Creativity»), didactic games («Casting», «Give it Forward»). Creative application of students’ acquired pedagogical experience took place during having training practice «Probational Lessons and Classes».

Reflective and analytical stage (4th year of studies) was carried out for formation in would-be teachers ability for self-discovery and self-analysis of results of their own professional-methodical activity; ability to study and implement advanced pedagogical experience. On this stage content of the course «Methodic Work in School» was aimed at deepening students’ knowledge of teacher’s professional self-improvement. Study process was organized in the form of conference lecture, business game «Steps to Methodic Mastery»; methods of analysis and self-analysis were used, own methodical portfolio were presented. In the process of continuous pedagogical practice in school students observed teachers’ masterclasses, took part in meetings of methodical boards, analyzed advanced pedagogical experience, formed professional self-development plan.

Outcomes of empirical research

Experimental testing of effectiveness of the model proved positive changes in the levels of formation of methodic culture of would-be elementary school teachers (Table 1).

<table>
<thead>
<tr>
<th>Level of formation</th>
<th>Control group (CG)</th>
<th>Experimental group (EG)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Before experiment</td>
<td>After experiment</td>
</tr>
<tr>
<td></td>
<td>people %</td>
<td>people %</td>
</tr>
<tr>
<td>Integrative-creative</td>
<td>11 5,89</td>
<td>16 8,25</td>
</tr>
</tbody>
</table>
Analysis of the received results proves that percentage of students in the EG with integrative-creative (from 6.02% to 13.21% (+7.19%)), systemic-productive (from 20.64% to 39.23% (+18.59%)) and reproductive (from 33.58% to 40.5% (+6.94%)) levels of formation of methodical culture has risen whereas percentage of those with adaptive-repetitive level has fallen (from 39.76% to 7.06% (−32.7%)). In student from CG corresponding values did not show significant changes: +2.36%, +0.79%, +1.96, −4.71%.

Certainly of the generalized results has been tested with the help of Pearson criterion: $\chi^2 = 25.466$, the value exceeds critical meaning, which confirms the hypothesis of the research. It has been discovered that difference in levels of formation of methodical culture in students of the EG and CG is statistically significant, which proves effectiveness of the model of formation of methodical culture of would-be elementary school teachers in the process of professional training.

**Pic.2.** Levels of formation of methodical culture in would-be elementary school teachers based on the results of the forming experiment

### 5. Conclusions

Formation of methodical culture of would-be elementary school teachers in the process of professional training is an aimed influence on
personality with the purpose of development and improvement of their value orientations, professional qualities, knowledge, abilities and skills, ability for conducting effective professional-methodic activity. The described process is complicated, multifaceted, pedagogically oriented, characterized by controllability, organizability, predictability and completeness of the results and is viewed on from the position of culturological, axiological, competence, systemic and personality and action scientific approaches. It has been defined that «methodic culture of an elementary school teacher” is a combination of his/her professional and personal values and qualities, methodical competence and methodical mastery, which allows to perform creatively professional-methodical activity on the basis of reflection, acquired experience and self-development with taking into account normative standards. Its structural components are: value and motivational, cognitive and praxeological, personality and creative, reflective and evaluational. It has been proven that raising levels of formation of methodical culture of would-be elementary school teachers will be effective with implementation of the elaborated and experimentally proven model and creation of appropriate pedagogical conditions.

**Prospects for further research.** We consider it relevant to include in further directions of scientific search formation of methodical culture of elementary school teachers in the conditions of implementing the new State Standard of Elementary Education; studying experience of formation of methodical culture of elementary school teachers in foreign countries.

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