The article presents the results of modeling the system of inclusive competence development of specialists in professional and technical education and practical aspects of the implementation of this model in the digital educational ecosystem of the Bila Tserkva Institute of Continuous Professional Education. In particular, the following aspects are highlighted: the content of specialist training for inclusive education of students with special educational needs in the course (attestation) period; the features of scientific methodical support of continuous professional development of teachers in the inter-course (inter-test) period; the possibilities of using the resources of the digital educational ecosystem of the Bila Tserkva Institute of Continuous Professional Education to study and spread the best educational practices of organizing inclusive education for students with special educational needs.

Keywords: competence, inclusive competence, inclusive education, education seekers with special educational needs.

Introduction. With the beginning of the large-scale war unleashed by the Russian Federation on the territory of Ukraine, the topic of inclusive education of students with special educational needs faces special relevance and new challenges. Today, the Vocational Education system is under extreme stress due to factors such as migration, dynamic economic changes caused by the war, and lack of funding, exacerbated by the country's defense needs.

Personnel of Vocational Education in practice are faced with the need to provide psychological and pedagogical support for young apprentices affected by military actions (internally displaced persons; persons who have survived violence or a psychotraumatic situation; lost loved ones; have a stressful reaction to events in the country, various psychological injuries, etc.). Personnel of Vocational Education also need to develop their own skills of endurance and stress resistance, this is a necessary condition for them to fulfill their professional duties in conditions of war and uncertainty.

Institutions of continuing professional education play a decisive role in the development of the inclusive competence of personnel of Vocational Education. The system of continuous professional education should make possible, firstly, to overcome the gap between the professional training of teachers in higher education institutions, which until recently did not provide for the training of inclusive knowledge and skills; secondly, to form and develop the skills of endurance and stress resistance of personnel of Vocational Education, which is a necessary condition for maintaining mental health and quality performance of their official functions.

The study of the problem of the development of inclusive competence of vocational education specialists in the conditions of martial law is carried out by the Department of Educational
Recent studies review. Theoretical and practical aspects of the problem of the development of inclusive competence of pedagogical workers as a component of their special (professional) competence served as the subject of many studies. Among them are the works of scientists such as O. Kazachiner, N. Figol, Y. Boychuk, O. Borodina, I. Kalinichenko, I. Kucherak, O. Mykytyuk, O. Savytska, Z. Udovych and others.

Inclusive competence is interpreted by them as the level of knowledge and skills necessary to perform professional functions in the conditions of inclusive education; as the necessary amount of knowledge and skills embodied in the ability to perform professional functions, taking into account the special needs of students with special educational needs, to integrate them into the environment of an educational institution, creating conditions for development and self-development; as an integral characteristic of a pedagogue (teacher, assistant), which affects the ability to solve professional tasks in the conditions of an inclusive approach to educational activity [1, 3, 5].

Y. Boychuk defines inclusive competence of a teacher as «an integrative and personal education that conditions the ability to perform professional functions in the process of inclusive education, taking into account the various educational needs of students with special educational needs, ensuring their inclusion in the educational environment, creating conditions for their development and self-development, full socialization» [1]. Thus, the inclusive competence of teachers belongs to the group of special (professional) competences.

However, taking into account the scientific literature and the practical aspects of the implementation of inclusion in the work of educational institutions, it is still necessary to state the need for additional study of this issue. It is especially important due to the updating of the regulatory support of inclusive education, the current challenges of today caused by military actions, and the uncertainty.

Purpose. The article presents the justification of directions and content of scientific and methodical support for the development of inclusive competence of Personnel of Vocational Education in the conditions of martial law.

Results. Improved readiness of personnel of Vocational Education for the inclusive education of students with special educational needs can become an important factor in the development of personal professional competence and the improvement of the quality of education, if: knowledge and skills in working with students with special educational needs are clearly defined and scientifically substantiated as a necessary component of special (professional) competence; the preparation of Personnel of Vocational Education for the inclusive education of students with special educational needs functions as a holistic system that includes professional development during the course (attestation) period, scientific and methodological support of continuous professional development of teachers in the inter-course period; teaching staff of the Vocational Education are included in the network educational digital space, which supports the provision of advisory and facilitative assistance.

The structural and functional model of the development of the inclusive competence of Personnel of Vocational Education is a component of the single educational and digital ecosystem
created at BTICPE. The model ensures the organic integrity of the content of Personnel of Vocational Education training during the course (attestation) period, scientific and methodological support during the inter-course period, independent, research activities aimed at the development of inclusive professional competence of specialists and the implementation of inclusive education technologies for students with special educational needs.

The structural-functional model of the development of inclusive competence of the teaching staff of the Vocational Education combines the intellectual, scientific, professional, educational, technological potential of the subjects of the BTICPE network educational and digital environment, provides for the use of digital, andragogic and interactive technologies in the BTICPE virtual space.


In particular, we are talking about the features and main areas of professional development of the teaching staff of the Vocational Education: the formation of knowledge among students about the creation of a safe and inclusive educational environment, understanding the features (specificities) of inclusive education, providing additional support in the educational process of students with special educational needs; development of inclusive competence.

It should be noted that Personnel of Vocational Education, who have a general pedagogical education, should not duplicate the content of the training of special education teachers, because inclusive education is primarily provided by correctional (special) teachers. At the same time, vocational education specialists are members of the team of psychological and pedagogical support of persons with special needs studying in an educational institution, and this requires the formation of a corresponding component of their professional competence.

The preparation of Personnel of Vocational Education (masters of industrial training, senior masters, teachers of professional and theoretical training) for the implementation of inclusive education is a complex system of interaction of subjects of the educational process of professional development, aimed at the acquisition by students of special knowledge, abilities and skills in the theory and practice of inclusive education education, among which: regulatory and legal support for the organization of inclusive education in vocational education institutions, principles, tasks and modern technologies of inclusive education for students with special educational needs, technologies for creating a safe and inclusive educational environment; development of personal, professionally important qualities that will have a positive impact on various categories of students involved in inclusive education (tolerance, empathy, support, assistance, cooperation, teamwork skills, etc.).

The content of electronic training courses (ETC) (Table 1) is aimed at mastering the Personnel of Vocational Education of various organizational forms of inclusive education, developing practical skills regarding the order and algorithm of organizing inclusive education in vocational education institutions, providing psychological and pedagogical support for students with special educational needs, technologies for creating an inclusive educational environment, principles of universal design and smart adaptation.

Electronic training courses are offered for students of advanced training courses on issues of prevention of professional and emotional burnout, self-regulation of the mental state, the basics of conflict theory, etc.

Separate resources have been opened in the Electronic Library of the National Academy of Pedagogical Sciences of Ukraine: Bila Tserkva Institute of Continuous Education of State Higher Educational Institution «University of Educational Management» [https://lib.iitta.gov.ua/view/divisions/dppm/].
**Table 1**

<table>
<thead>
<tr>
<th>Name ETC</th>
<th>Task</th>
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| Creating a safe and inclusive educational environment in a professional education institution | - formation of a conscious understanding of the main provisions and conceptual foundations of inclusive education;  
- increasing the level of professional competence of teachers of vocational education institutions regarding the use of inclusive education technologies in educational activities;  
- development and improvement of practical abilities and skills of working with students with special educational needs;  
- awareness of the need for the growth of pedagogical skills, the formation of one's own inclusive competence. |
| Inclusive education. Work with students with special educational needs | - update and systematization of knowledge about negative socio-pedagogical phenomena in vocational and technical education institutions;  
- increasing the level of professional competence of pedagogical workers of vocational and technical education institutions regarding the diagnosis and prevention of negative socio-pedagogical phenomena |
| Provision of additional support in the educational process of applicants with special educational needs | - update and systematization of knowledge regarding professional and emotional burnout of teaching staff of vocational and technical education institutions;  
- increasing the level of professional competence of pedagogical workers of vocational and technical education institutions regarding the diagnosis and prevention of professional and emotional burnout |
| Socio-pedagogical work with students in vocational and technical education institutions | - update and systematization of knowledge regarding the development of mental self-regulation of employees of vocational education institutions;  
- increasing the level of mental self-regulation of teachers of vocational education institutions, the development of the ability to mental self-regulation in educational activities;  
- designing the educational process in vocational education institutions using relaxation exercises to achieve internal harmony and balance |
| Prevention of professional and emotional burnout of teaching staff of vocational and technical education institutions | - update and systematization of knowledge regarding the development of mental self-regulation of education seekers |

The content of the scientific and methodological support of continuous professional development of teachers in the inter-course period is aimed at the acquisition by specialists of vocational and technical education of additional professional competences that meet the social and personal needs and challenges of today.

To meet the professional requests and needs of specialists of vocational and technical education regarding the implementation of modern technologies of inclusive education, the Bila Tserkva Institute of Continuous Education has developed and implemented a system of short-term thematic courses (Table 2). Forms of training on short-term courses: distance, face-to-face, face-to-face distance. The number of training hours is 30 (15), depending on the requests and needs of vocational education specialists.

An important means of assimilating the content of advanced training programs for teachers of vocational and theoretical training, masters of industrial training, senior masters of vocational and technical education institutions is independent educational activity, which is organized and comprehensively provided for any form of education, at all stages of advanced training.
### Short-term thematic courses  BTICPE

<table>
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<tr>
<th>Name of the course</th>
<th>Knowledge, understanding, skills, competences</th>
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| Inclusive education in a professional education institution. Technologies for supporting students with special educational needs | Knowledge, understanding:  
- categorization of persons with special educational needs;  
- the content and features of the implementation of psychological and pedagogical support for students with special educational needs;  
- technologies for creating an inclusive educational environment taking into account the principles of Universal Design and Smart Adaptation;  

skills:  
- apply of technologies in inclusive education to the educational process of vocational education institutions;  
- to design the educational and cognitive activities of students with special educational needs using the technologies of inclusive education;  
- comply with the requirements for the organization of an inclusive educational environment, taking into account the principles of Universal Design and reasonable accommodation |
| Methods of inclusive education of students with different nosologies               | - the ability to plan and organize the educational process taking into account the structure and peculiarities of violations of the psychophysical development of the students;  
- the ability to implement educational technologies in working with students with special educational needs;  
- the ability to comply with the requirements for the organization of an inclusive environment;  
- the ability to build harmonious relationships with persons with psychophysical developmental disabilities and their families |
| Implementation of an inclusive environment in a professional education institution  | - knowledge of regulatory and legal provision of an inclusive educational in a professional education institution;  
- understanding the principles, forms, methods and essence of the organization of inclusive education in a professional education institution;  
- the ability to form an individual development program and an individual educational plan for a student with special educational needs in accordance with the level of support determined by the inclusive resource center |
| Support for students with special educational needs and their parents in emergency situations | - the ability to plan and organize the educational process taking into account the specifics of violations of the psychophysical development of students;  
- the ability to implement educational technologies in working with students with special educational needs;  
- the ability to comply with the requirements for organizing an inclusive educational environment |
| Innovative forms and methods of correctional work with teenagers with deviant behavior | - the ability to use modern educational technologies in a professional education institution;  
- the ability to manage one's emotional state and create a favorable atmosphere for cooperation;  
- to understand the influence of favorable organizational conditions on the effectiveness of the educational process, to design preventive educational activities in the vocational education institution;  
- the ability to apply innovative forms and methods of correction of deviant behavior of students in preventive pedagogy |
Health-saving technologies in the educational process of a teacher of professional education

- the ability to use health-preserving techniques to strengthen one's own health and the health of students;
- the ability to select modern techniques to support the health of teachers and students during wartime

Psychological well-being of participants in the educational process

- self-regulation (control of impulses and management of emotions, expression of emotions, blocking of negative emotional states);
- regulation of mutual relations (social skills, ability to build relationships with others);
- reflection (self-awareness, rational understanding of emotions, identification of own motives)

Reflective management: opportunities for development and protection of participants in the educational process

- the ability to plan and organize the educational process taking into account reflexive influences;
- the ability to effectively and adequately carry out process of development and self-development, contribute to a creative approach to the professional activity of teachers of an educational institution;
- the ability to improve the methods of corrective work for the development of the teacher's potential;
- the ability to develop cognitive skills and use opportunities to protect against manipulation

Graduation work is one of the forms of independent creative educational activity of pedagogical workers. It encourages the study of scientific and methodological literature, normative documents and advanced pedagogical experience, promotes the formation of competences in working with literature, teaches to analyze theoretical and factual data of practical experience.

Graduation work is not only a certain stage in the acquisition of scientific knowledge, but also involves mastering the skills of research work using the acquired knowledge. Completion of the final graduation thesis is a mandatory component of the independent work of students of advanced training courses of the Bila Tserkva Institute of Continuous Professional Education, which determines the level of development of competence in inclusive education during the period of advanced training, as well as the skills of scientific research, methodical or managerial work.

BTICPE departments have developed practical advisors for teachers of professional and theoretical training, masters of industrial training, senior masters for the completion of graduation theses. Approximate topics and content of works on issues of inclusive education of students with special educational needs in a professional education institution are presented in the Table 3.

**Table 3**

<table>
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<th>The topic of the work</th>
<th>Approximate content</th>
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| Psychological and pedagogical support and support for students with special educational needs | I. Theoretical part. Theoretical aspects of psychological and pedagogical support and support for students with special educational needs (according to nosologies) in vocational education institutions  
1. Regulatory and legal provision of psychological and pedagogical support and support for students with special educational needs. Terminological definitions  
2. The essence and content of pedagogical support for students with special educational needs in the conditions of professional education |
| Use of modifications and adaptations in work with students with special educational needs | I. Theoretical part. Theoretical aspects of adaptation and modification in the conditions of vocational education  
1. Regulatory and legal provision of inclusive education of persons with special educational needs in the conditions of a professional education institution. Categorical definitions  
2. The essence, principles and tasks of modification and adaptation  
3. Psychological and pedagogical adaptations and modifications in the conditions of professional education  
4. Modifications and adaptations of the content of the educational program (integrated course)  
5. Environmental adaptations. Use of special equipment  
II. The practical part. Practical aspects of the use of adaptation and modification in a professional education institution  
2.1. Develop adaptations and (or, if necessary) modifications of the curriculum (integrated course) for a specific student. What are the challenges and risks of using adaptation and modification for vocational education? Why is it necessary to approach the implementation of adaptation and modification in vocational education institutions with extreme caution? Give a detailed, reasoned answer. |
| Development and evaluation of an inclusive environment. Universal design | I. Theoretical part. Theoretical aspects of the development of an inclusive environment in a professional education institution  
1. Modern regulatory and legal provision of inclusive education in the conditions of a professional education institution. Principles of equal opportunities and accessibility  
2. Basic terminological definitions and features of the organization of an inclusive environment in an educational institution  
3. Barriers in education  
4. Principles and strategies of universal design and smart adaptation  
5. Adaptations and modifications as a condition for the development of an inclusive environment  
6. Evaluation of the inclusive environment. Index of inclusion  
II. The practical part. Practical aspects of development and evaluation of an inclusive educational environment in a professional education institution. |
2.1. Give and justify examples of barriers that prevent the creation of a safe and inclusive educational environment in a professional education institution: physical, informational, institutional, mental. How can universal design technology overcome these barriers? Give and justify examples.

2.2. Give examples of the use of adaptation and modification to remove barriers to learning for students with special educational needs.

2.3. Based on the Inclusion Index methodology, draw up an evaluation plan and evaluate the level of development of the inclusive environment of your institution.

Graduation work can be presented in the form of: creative work; description of own experience; author's project; presentation of own sites or blogs with analysis of the materials contained in them, which relate to the problem of the courses.

BTICPE has created a single educational-digital ecosystem that combines the intellectual, scientific, professional, educational, technological potential of subjects of the network educational-digital environment, provides for the use of digital, andragogic and interactive technologies in the virtual educational space.

The single educational and digital ecosystem of BTICPE includes: LMS «Profosvita» (https://profosvita.org/, more than 8000 registered participants), the Microsoft Teams cloud service of the Office 365 platform (more than 4000 registered), the School of Pedagogical Coaching and its digital counterpart - Virtual School of Pedagogical Coaching, Consulting Center, online consultation center «Latest production technologies», informational and analytical resource "Methodical Treasury", online psychological support center "ReVita", online Academy of Digital Technologies, BTICPE digital library, digital training courses, digital software and methodical complexes, personal web resources of teachers, BTICPE's own website (https://binpo.com.ua/), own YouTube channel (https://t1p.de/six2k), Telegram channel (https://t.me/binpo_uno), virtual sections on the BTICPE website for informal education and professional development specialists.

The Consulting Center «Newest Pedagogical and Production Technologies» was established at BTICPE to train and improve the qualifications of specialists in the conditions of mixed education. The activity of the Center provides scientific and methodological support for the continuous professional development of teachers in the conditions of informal and informal education and the provision of advisory, facilitative assistance, the dissemination of the best educational practices. The content of consulting assistance includes: presentation of the results of the implementation of the latest pedagogical and production technologies in the practice of professional education institutions; presentation of materials of pedagogical experience and best educational practices; familiarization with modern equipment, machinery, tools and technologies (based on the materials of specialized exhibitions).

In order to provide scientific and methodological support for improving the qualifications of pedagogical workers, providing them with methodical, organizational and advisory assistance regarding the implementation of pedagogical innovations, summarizing prospective pedagogical experience, and mastering the latest production technologies, the information and analytical resource «Methodical Treasury» was created.

The online psychological support center "ReVita" provides solutions to specific personal problems in situations of uncertainty, related to the preservation of mental health in crisis conditions and conditions of martial law.

**Conclusion.** The structural and functional model of the development of the inclusive competence of vocational education specialists as a component of the Unified educational and digital ecosystem BTICPE ensures the organic integrity of the content of teacher training in the course (attestation) period, scientific and methodological support in the inter-course period, independent, research activities, aimed at the development of inclusive professional competence of vocational education specialists and the implementation of inclusive education technologies for students with special educational needs.
The structural-functional model of the development of inclusive competence of vocational education specialists combines the intellectual, scientific, professional, educational, technological potential of the subjects of the network educational and digital environment, provides for the use of digital, andragogic and interactive technologies in the virtual space of BTICPE.

Educational classes at the advanced training courses of Bila Tserkva Institute of Continuous Education are aimed at developing the teacher's readiness to implement practical ideas of inclusion, the use of inclusive education technologies for students with special educational needs, and the formation of a safe and inclusive environment. The content of training classes is differentiated according to the content and specifics of the pedagogical activity of vocational education specialists.

To meet the professional requests and needs of vocational education specialists regarding the introduction of modern technologies of inclusive education, BTICPE has developed and implemented scientific and methodological support for the continuous professional development of teachers in the inter-course period. Content-oriented and targeted scientific and methodological support for teachers of vocational education is provided by the implementation of short-term thematic courses.

Continuous professional development of vocational education specialists in the inter-course period takes place through a complex of scientific and methodological activities: scientific and practical seminars, Internet conferences, educational trainings, forums, festivals, interactive communication of temporary creative teams. Pedagogical workers of vocational and technical education are included in the network space of the Unified BTICPE ecosystem, which provides for the provision of advisory, advisory and facilitative assistance, the study and dissemination of the best educational practices of the organization of inclusive education in vocational and technical education.

References


НАУКОВО-МЕТОДИЧНИЙ СУПРОВІД РОЗВИТКУ ІНКЛЮЗИВНОЇ КОМПЕТЕНТНОСТІ ФАХІВЦІВ ПРОФЕСІЙНО-ТЕХНІЧНОЇ ОСВІТИ В УМОВАХ ВОЄННОГО СТАНУ

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Білоцерківський інститут неперервної професійної освіти
Проблема. Зважаючи на аналіз наукової літератури та практичні аспекти впровадження інклюзії в роботу закладів професійної (професійно-технічної освіти), доводиться констатувати потребу у додатковому вивченні питання змісту та організації науково-методичного супроводу неперервного професійного розвитку фахівців ЗПІП(П)О, насамперед, беручи до уваги оновлення нормативно-правового забезпечення інклюзивного навчання, актуальні вислики сьогодення, обумовлені воннімі діями та станом невизначеності.

Мета. У статті обґрунтовано напрями та зміст науково-методичного супроводу розвитку інклюзивної компетентності фахівців професійної (професійно-технічної освіти) в умовах вонніго стану.

Основні результати дослідження. Розвиток готовності фахівців ЗПІП(П)О до інклюзивного навчання здобувачів освіти з особливими освітніми потребами може стати важливим фактором розвитку особистої професійної компетентності та підвищення якості освіти, якщо: знання і вміння щодо роботи із здобувачами освіти з особливими освітніми потребами будуть чітко визначені та науково-обґрунтовані як необхідна складова спеціальної (фахової) компетентності; підготовка фахівців ЗПІП(П)О до інклюзивного навчання здобувачів освіти з особливими освітніми потребами буде функціонувати як цілісна система, яка охоплює підвищення кваліфікації в курсовий (атестаційний) період, науково-методичний супровід безперервного професійного розвитку педагогів у міжкурсовий (міжсеместровий) період; педагогічні працівники ЗПІП(П)О будуть включені до мережевого освітньо-цифрового простору, який передбачає надання дорадницької консультативної фасилітативної допомоги.

Наукова новизна результатів дослідження. Структурно-функціональна модель розвитку інклюзивної компетентності фахівців ЗПІП(П)О є складовою єдиної освітньо-цифрової екосистеми, створеної у БІНПО. Представлена модель забезпечує органічну цілісність змісту підвищення кваліфікації педагогів ЗПІП(П)О в курсовий (атестаційний) період, науково-методичного супроводу у міжкурсовий (міжсеместровий) період, самостійної, дослідницької діяльності, спрямованої на розвиток інклюзивної професійної компетентності фахівців та впровадження технологій інклюзивного навчання здобувачів освіти з особливими освітніми потребами. Структурно-функціональна модель розвитку інклюзивної компетентності фахівців ЗПІП(П)О поєднує інтелектуальний, науковий, професійний, освітній, технологічний потенціал суб’єктів мережевого освітньо-цифрового середовища БІНПО, передбачає використання цифрових, андрагогічних та інтерактивних технологій у віртуальному просторі БІНПО.

Висновки та конкретні пропозиції автора. Навчальні заняття на курсах підвищення кваліфікації Білоцерківського інституту неперервної професійної освіти спрямовано на розвиток готовності педагогів до втілення практичних ідей інклюзії, застосування технологій інклюзивного навчання здобувачів освіти з особливими освітніми потребами, формування безпечного та інклюзивного освітнього середовища. Зміст навчальних занять є диференційованим відповідно до змісту та специфіки педагогічної діяльності фахівців ЗПІП(П)О. Для задоволення професійних потреб та потреб фахівців ЗПІП(П)О стосовно впровадження сучасних технологій інклюзивного навчання БІНПО розроблено та впроваджено науково-методичний супровід безперервного професійного розвитку педагогів у міжкурсовий (міжсеместровий) період. Змістовна та адресна науково-методична підтримка педагогічним працівникам ЗПІП(П)О забезпечується впровадженням короткострокових тематичних курсів. Безперервний професійний розвиток фахівців ЗПІП(П)О у міжкурсовий (міжсеместровий) період відбувається через комплекс науково-методичних заходів: науково-практичні семінари, Інтернет-конференції (ЧАТи, вебінари), навчальні тренінги, форуми, фестивалі, інтерактивні спілкування тимчасових творчих колективів. Педагогічні працівники ЗПІП(П)О включені до мережевого простору Єдиної екосистеми БІНПО, що передбачає надання дорадницької консультативної фасилітативної допомоги, вивчення й поширення кращих освітніх практик організації інклюзивного навчання в ЗПІП(П)О.
Ключові слова: компетентність, інклюзивна компетентність, інклюзивна освіта, здобувачі освіти з особливыми освітніми потребами.

Список використаної літератури
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