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CONTENT AND STRUCTURE OF WEB-PLATFORM “PARTNER SPACE “015”

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Abstract.

Relevance: the need to develop a web platform for communication of participants in the educational process is determined by the objectives of balanced development and improvement of the system of vocational (technical) education on the basis of partnership and interaction.

Purpose: substantiation of the content and structure of the web platform "PARTNER SPACE "015".

Methods: theoretical (analysis, synthesis, generalization); empirical (methods of self-assessment; expert evaluation).

Results: the content was selected and the structure of the web platform was developed, which will contribute to the establishment of stable links of all participants of the educational process, building effective communication of teachers who implement educational programs to train teachers of vocational education, management and teaching staff of vocational institutions, applicants for education, improving the quality of education.

Conclusions: the developed structure of the web platform "Partner space "015" allows to implement a systematic approach to development of pedagogical interaction, meet the needs of participants in the educational

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process and other stakeholders. It will help to ensure multi-vector communication between students, teachers and stakeholders; implementation of mechanisms of interaction of stakeholders in the training of teachers of vocational education institutions; creating conditions for professional development of teachers and exchange of their experience. The presented platform provides the possibility for the interaction between students of higher education institutions in the specialty 015 "Vocational Education", teachers of higher education institutions, vocational and professional pre-higher education and employers - representatives of personnel services of enterprises, institutions, organizations, specialists who want to become teachers of vocational education and professional pre-higher education, representatives of state and local authorities, public organizations, heads of institutions of higher, professional (vocational and technical) and professional pre-higher education institutions.

**Keywords:** educational web platforms, vocational education, institutions of vocational education, educational environment.

**Introduction.** The success of training of future professionals in the institutions of vocational institutions necessitates continuous improvement of professional competence of teachers. To do this, it is important to reconcile the requests and expectations of vocational institutions, the motives of future teachers and competencies that are formed in the process of education, as well as the motives of professional development of teachers of vocational and professional pre-higher education (Radkevych, 2021). As a tool to solve this problem, governance is considered on the basis of partnership and interaction by involving vocational institutions in the development of modern educational programs or implementation of innovative teaching methods, which in turn can help create a governance model that goes beyond these two stakeholders (Radkevych and others, 2018; Androschuk, 2017). As decentralization is a key aspect of modern vocational policy and governance based on partnership in vocational teacher training is in line with the political factors. To do this, it is necessary to establish communication between all stakeholders, in particular, through the use of the web platform "Partner Space "015". The development of this platform is envisaged by the Project "PAGOSTE "New mechanisms of partnership-based governance and standardization of vocational teacher education in Ukraine" № 609536-EPP-1-2019-1-DE-EPPKA2-CHBE-SP), which aims to improve governance in the field of teacher training in Ukraine.

**Sources.** Theoretical analysis of this problem was carried out on the basis of scientific works on network interaction in the development of vocational education (Radkevych V., Borodiyenko O., Pukhovska L., Radkevych O., Bazelyuk N., Leu S.), as well as pedagogical interaction (Androschuk I.). The results of the authors' scientific research testify to the necessity and expediency of developing a web platform for communication between teachers of vocational education. During the development of the structure of the web platform, research on the development of digital culture of teachers, information and digital competence of future teachers of vocational training (Bazelyuk O., Artushyna M., Radkevych O.) was taken into account.

The purpose of the article is to substantiate the content and structure of the web platform "Partner Space "015", created for communication between teachers and students of educational institutions, and the prospects for its operation.

**Research methods:** theoretical (induction, deduction, synthesis and generalization; modeling); empirical (praximetric (study and analysis of the experience of interaction of vocational education institutions, institutions of professional pre-higher and higher education, which provide training for teachers), questionnaire and diagnostic (questionnaires, interviews, testing, interviews), self-assessment methods, expert evaluation).

**Results and discussion.** The purpose of the web platform is to improve the quality and relevance of training, retraining, professional development of teachers for vocational education in Ukraine. Web platform Partner space "015" is aimed at providing communication between students, teachers and stakeholders; creating conditions for professional development of teachers and exchange of experience; ensuring the implementation of mechanisms for the interaction of stakeholders in the training of teachers of vocational education.

The web platform target audience is students of higher education institutions in the specialty 015; teachers of institutions of higher, vocational and professional pre-higher education; employers (representatives of personnel services of enterprises, institutions, organizations); specialists who want to become teachers of vocational education, professional pre-higher education institutions; representatives of...
state and local authorities, public organizations; heads of institutions of higher, vocational and professional pre-higher education. To improve the quality of training of teachers for vocational and professional pre-higher education institutions, providing communication between students, teachers, employers on the web platform it is necessary to place information about: educational and professional programs of universities that train teachers for institutions of vocational and professional pre-higher education; educational programs for advanced training and internships of teachers of higher, vocational, professional pre-higher education; places of practice for students of higher, vocational and professional pre-higher education; institutions and organizations that provide training and internships for teachers; job search for students/teachers, cooperation with job search platforms; forum for exchange of experience and communications; publication of grant and project opportunities for teacher training, academic exchanges, internships; planning and coordination of communication activities related to education or professional development of pedagogical staff of educational institutions; providing feedback and suggestions for improving the training of teaching and non-teaching staff of educational institutions.

Given the above, the structure of the platform contains eight sections.

**Fig. 1. Example of header**

**Fig. 2. Example of the main page**
Section 1. "Home" (consists of elements in particular: slider (has a flexible setting of the event as a start and end date, transitions, hyperlinks, etc.), associated with a hyperlink to news or other important material for the administrator, four tiles with a graphic image and related to the relevant categories, calendar (can be both Google calendar and static with the ability to fill it by relevant user groups, news from certain categories, feedback forms and contact information) (see figures 1, 2).

Section 2. "For Students" contains:

- Educational, educational-professional programs (page with information about educational, educational-professional programs of educational institutions; (see fig.3);
- Trainings (the page where information about trainings is presented, has a calendar form) (see fig.4);
- Projects (the page on which the information about projects are presented (see Fig. 4, 5);

Grants (the page on which grants are submitted, has the form of a blog; the number of pages increases according to the amount of content; information about current grants is downloaded by administrators or editors. Information includes: images, text, hyperlinks and the ability to distribute content through social networks (social media distribution buttons) (see Fig.4, 5);
Internship (a page with information about places of practice. Authorized users (students) can send a request for an internship in the chosen place. Information includes: images, text, hyperlinks and the ability to distribute content through social networks (social media distribution buttons) (see Fig. 6); Job page will shows the current job search sites with quick links to them) (see Fig. 7).
Section 3 "For Teachers" contains information about:

- Advanced courses (the page where the information about the advanced courses is presented, has the form of a blog (see Fig.4);
- Trainings (the page where information about active trainings is presented has the form of a calendar (see Fig.4);
- Workshops (a page with information about active workshops has the form of a calendar (see Fig.4);
- Internship (the page with information about internship applications has the form of a blog divided into 5 columns and 4 lines (see Fig.4);
- Projects (the page on which the current projects are presented has the form of a blog (see Fig.4);
- Grants (the page on which information about grants are submitted has the form of a blog divided into 5 columns and 4 lines (see Fig.4);
- Work (at the top of the page the user can search by category, according to the specified search parameters; the information from current job search sites are highlighted (work.ua, robota.ua, jobs.ua) (see Fig.4).

Section 4 "Activities" contains information on the most important local and international educational events authorized for publication on the web platform (filter of events by tag, category, time; archive of events):

- Calendar (calendar with the ability to fill only by administrators or editors, with the ability to subscribe to events and share them on social networks via social buttons; at the top of the page the user can search by category; according to the search parameters the results are highlighted; it is also possible to show all events, which can be sorted by date, to show events up to a certain date) (see Fig.8);
– **News**. Dynamic content by topic (at the top of the page the user can search by category; according to the search parameters the results are highlighted). It is possible to filter by tag, time. Information includes: images, text, hyperlinks. The content is downloaded by administrators or editors (see Fig.9).

For any news should be able to be attached to static pages (categories). News provides several types of content, depending on which the appearance of their display in abbreviated and complete lists (video, photo or text information) should change.

Section 5 "**Partners**" contains general information about institutions of higher education, professional pre-higher, vocational education, institutions that have signed a memorandum of partnership (see Fig.10).

Educational institutions can (by prior registration and verification) prepare for publication and publish their profiles. Users (guests) can view the profiles and information of educational institutions and add them to favorites (and receive by e-mail all the information generated by the educational institution).

An educational institution may create, publish, close, edit, view and delete information created by it.

– **Higher education institutions** (the page with information about higher education institutions looks like a blog divided into 5 columns and 4 lines (see Fig.11).
Institutions of professional pre-higher education (the page with information about institutions of professional pre-higher education has the form of a blog divided into 5 columns and 4 lines (see Fig.11);

Institutions of vocational education (the page, which presents information about institutions of vocational education, has the form of a blog divided into 5 columns and 4 lines (see Fig.11);

Institutions (the page where the information about the institution is presented, has the form of a blog divided into 5 columns and 4 lines (see Fig.11).

Section 6 "Association" is a section in which there will be an opportunity to create), edit, delete content by the super administrator (Association). It is possible to leave messages, comments, after registration and without registration (required fields: message, name, e-mail). Super administrators, administrators or editors can moderate a forum (create, modify, delete posts, sections) according to the category he/she can moderate.

Section 7 "Personal account" appears after user registration and contains:

Notification Center (notifications) (the ability to communicate with selected authorized users, super administrators, administrators or editors) (internal chat) (here come messages from the category Practice); Super administrators, administrators or editors are notified of the completion of the memorandum of cooperation. The notification center receives information about filling in the evaluation form of the educational, educational-professional program.

List of requests (from interested persons: authorized users, administrators or editors).

The personal account of the user of the web platform provides the following opportunities:

Register (both in the classic way and through social networks) or sign in if you have already been registered;

Subscribe to selected categories of news, features and other types of dynamic publications and receive notifications about their updates;
– comment on all available information on the site;
– receive other services on the web platform;
– register for an event or course.

The hierarchy of system users presupposes the presence of: external users - visitors of the web platform; internal users (authorized in the administrative panel) of the web platform:
– super-administrators (Ministry of Education and Science of Ukraine; Institute of Vocational Education of the National Academy of Pedagogical Sciences of Ukraine; Association);
– web platform administrators (registered users to whom the super administrator assigns the appropriate role);
– editors (registered users to whom the administrator assigns the appropriate role);
– authorized users.

The main responsibilities of the super-administrator are:
– Full management of accounts and user roles;
– Adding new administrators;
– Removal of administrators;
– Filling and adding new information (content) to the categories: Educational, educational and professional programs; Trainings; Projects; Grants; Practice; Training courses; Workshops; Internship; Calendar; News, etc.;
– Editing the information (content) created by other users;
– Deletion/transfer of the content to the archive;
– All types of settings that are provided by the functionality of the action system in any sections;
– View the log of actions of authorized users (administrators, editors).

The main responsibilities of the administrator are:
– Full management of accounts and roles of editors and authorized users;
– Adding editors with access to the categories: Educational, educational and professional programs; Trainings; Projects; Grants; Practice; Training courses; Workshops; Internship; Calendar; News, etc.;
– Editing the information (content) created by editors;
– Deletion/transfer to the archive of the information (content) created by editors;
– All types of settings that are provided by the functionality of the web platform within a certain category;
– View the action log of editors and authorized users of a certain section of the web platform.

The main responsibilities of editors are:
– Filling and adding new information (content) to the categories: Educational, educational and professional programs; Trainings; Projects; Grants; Practice; Training courses; Workshops; Internship; Calendar; News, etc.;
– Creation of new thematic tags, categories of publications, etc.;
– Editing the information (content) created by them;
– Deletion/transfer to the archive of the information (content) created by them.

The main possibilities for authorized users are:
– View all open content of the web platform;
– Send requests for practice;
– Comment on news and other information;
– Creating, editing and deleting their messages on the forum;
– Communication with selected authorized users, administrators, editors via internal chat (Message/Notification Center);
– View requests (from stakeholders: authorized users, administrators, editors).

In order to protect the information circulating on the web platform, it is planned to create a system of information protection. Information is protected by counteracting the threats that can be expected as a result of the violator's actions at all technological stages of its processing and in all modes of operation of the web platform, in accordance with the developed information protection plan.

The set of means of information protection should provide software and hardware implementation of security policy in terms of:
– Prevention of attempts to affect the integrity, confidentiality and availability of information;
– Creation of a mechanism and conditions for prompt response to external and internal threats and prompt notification of web platform administrators about the facts of unauthorized access to information;
– Implementation of control over user actions by web platform administrators;
– Registration and processing of detailed data on events in the system related to information security;
– Ensuring the availability of web platform resources for authorized and unauthorized users.
To ensure security requirements, the structure of the information security system should include: user identification; means of protection of information from unauthorized access; access control and identification tools; means of control, management and identification for remote access to the System; system shielding means; antivirus protection tools in the System; means of anti-virus protection of the System's servers; means of protection against attacks; means of protection against DDOS; patch management process; password policy control; data encryption; detailed logging.

The web platform must comply with the security and other requirements for the websites of government agencies (see http://zakon3.rada.gov.ua/laws/show/z1022-02) and the audit requirements for compliance with the provisions on the protection of information of the State special communication and information protection services of Ukraine. The web platform must comply with the General Data Protection Regulation (EU) 2016/679 ("GDPR") - this is EU legislation on data protection and confidentiality for all persons in the European Union (EU) and the European Economic Area (EEA). This also applies to the export of personal data outside the EU and the EEA.

**Conclusions.** The developed structure of the web platform "Partner space "015" allows to implement a systematic approach to development of pedagogical interaction, meet the needs of participants in the educational process and other stakeholders. It will help to ensure multi-vector communication between students, teachers and stakeholders; implementation of mechanisms of interaction of stakeholders in the training of teachers of vocational education institutions; creating conditions for professional development of teachers and exchange of their experience. The presented platform provides the possibility for the interaction between students of higher education institutions in the specialty 015 "Vocational Education", teachers of higher education institutions, vocational and professional pre-higher education and employers - representatives of personnel services of enterprises, institutions, organizations, specialists who want to become teachers of vocational education and professional pre-higher education, representatives of state and local authorities, public organizations, heads of institutions of higher, professional (vocational and technical) and professional pre-higher education institutions.

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**Translated & Transliterated**


ЗМІСТ І СТРУКТУРА ВЕБ-ПЛАТФОРМИ «ПАРТНЕРСЬКИЙ ПРОСТІР «015»

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Реферат:

Актуальність: необхідність розроблення веб-платформи для комунікації учасників освітнього процесу визначається завданнями збалансованого розвитку й удосконалення системи професійної (професійно-технічної) освіти далі (П(ПТ)О) на основі партнерства та взаємодії.

Мета: обґрунтування змісту та структури веб-платформи «ПАРТНЕРСЬКИЙ ПРОСТІР «015»

Методи: теоретичні (аналіз, синтез, узагальнення); емпіричні (методи самооцінювання; експертного оцінювання).

Результати: виконано відбір змісту та розроблено структуру веб-платформи, що сприятиме налаштуванню стійких зв’язків усіх суб’єктів освітнього процесу, побудові ефективної комунікації педагогів, які реалізують освітні програми з підготовки викладачів професійної освіти, керівних кадрів та педагогічних працівників закладів П(ПТ)О і здобувачів освіти, підвищенню якості освіти.

Висновки: Розроблена структура веб-платформи «Партнерський простір «015»» дає змогу реалізувати системний підхід до побудови педагогічної взаємодії, задовольнити запити учасників освітнього процесу та інших зацікавлених сторін. Вона сприятиме забезпеченню різновекторної комунікації між студентами, педагогами та стейкхолдерами; реалізації механізмів взаємодії стейкхолдерів у підготовці педагогів закладів П(ПТ)О; створення умов для професійного розвитку педагогічних працівників та обміну досвідом. Представлена платформа передбачає участь в ній студентів закладів вищої освіти за спеціальністю 015 «Професійна освіта», викладачів закладів вищої, П(ПТ)О та фахової передвищої освіти і роботодавців, представників кадрових служб підприємств, установ, організацій; спеціалістів, які хочуть стати викладачами закладів П(ПТ)О, фахової передвищої освіти; представників органів державної та місцевої влади, громадських організацій; керівників закладів вищої, П(ПТ)О та фахової передвищої освіти.

Ключові слова: Ключові слова: освітні веб-платформи, професійна (професійно-технічна) освіта, заклади про-фесійної (професійно-технічної) освіти, освітнє середовище.

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