3.1. METHODOLOGY OF FORMING OF ENTREPRENEURIAL COMPETENCE OF FUTURE WEB DESIGNERS

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Представлено авторську методику розвитку підприємницької компетентності, що цілісно зорієнтована на виявлення й актуалізацію підприємницьких якостей майбутніх фахівців із веб-дизайну. Обґрунтовано, що застосування цієї методики уможливлює ефективну реалізацію здобувачами вищої дизайн-освіти власного потенціалу, набуття досвіду нетворкінгу, соціальної взаємодії із представниками малого і середнього бізнесу. Аргументовано, що в реалізації методики особливу увагу варто приділяти, по-перше, стимулюванню мотивації до засвоєння сутності підприємницької діяльності та прагнення до підвищення рівня бізнес-освіти на основі критичного опрацювання різнопланових інформаційних джерел; по-друге, формуванню здатності до ініціативності та самостійного прийняття рішень; по-третє, розвитку вмінь ефективно співпрацювати в команді та усвідомлення особистісної і групової відповідальності.

Застосовуючи методику розвитку підприємницької компетентності викладачам необхідно, з одного боку, передбачити можливість максимального розвою особистісних і професійних якостей, передовсім тих студентів, які воліли б у майбутньому займатися підприємництвом, а з іншого, – досягати позитивних зрушень у динаміці загальних підприємницьких навичок, у тому числі підприємливості у всіх майбутніх веб-дизайнерів.

An author's methodology for the development of entrepreneurial competence that is focused on the identification and mainstreaming of entrepreneurial qualities of future web design professionals is presented. It is substantiated that the application of this methodology enables the effective realization of the potential of higher design education students, acquisition of networking experience, and social interaction with representatives of small and medium-sized businesses. It is argued that in the implementation of the methodology, particular attention should be paid, firstly, to stimulating motivation for assimilating the essence of entrepreneurial activity and striving to improve the level of business education through critical processing of diverse information sources; secondly, to the formation of initiative and independent decisionmaking skills; thirdly, to the development of abilities for effective teamwork and awareness of personal and group responsibility.

It is concluded that in using the methodology for the development of entrepreneurial competence, educators need, on the one hand, to provide opportunities for the maximum development of personal and professional qualities, primarily for those students who would prefer to engage in entrepreneurship in the future, and on the other hand, to achieve positive shifts in the dynamics of general entrepreneurial skills, including entrepreneurial abilities in all future web designers.

In the context of the formation of a post-industrial society characterized by dynamic socio-economic transformations, including the development of the creative industry and the emergence of web design as an innovative field, there is a constant increase in demand and popularity in the modern market for services related to website creation, design layouts, information structuring, visual presentation of web pages, logo development, animations, etc. The main task of web design as a branch of graphic design is the design of logical page structures, the creation of user-friendly information presentation methods, and the artistic design of web projects. Considering this, there is a need for professional training of specialists in web design who are capable of not only generating unique ideas but also successfully implementing them in professional and entrepre- neurial activities. In this regard, there is an objective need to develop a methodology for the development of entrepreneurial competence for future professionals in the field of web design.

The problems of professional training of future design professionals have been the focus of scientific research for over two decades by scholars such as S. Alekseeva, Ye. Antonovich, V. Aronov, O. Banit, S. Bilevich, O. Boychuk, O. Genisaretskyy, V. Danilenko, A. Dizhur, I. Kornitska, A. Maksimova, L. Oruzha, V. Runge, V. Timenko, Kh. Thagapsoyev, O. Fursa, O. Shevniuk, H. Shkarupa, S. Chirchik, and others. The methodological, theoretical, and methodical foundations of design education as a complex multidimensional phenomenon have been substantiated by scholars. The historiogenesis of design has been characterized, and the trend features of design education functioning have been defined. The essential nature of professional activities of design professionals, particularly design planning, has been analyzed. The multidisciplinary essence of design and its significance for the development of national culture and post-war economic recovery in Ukraine has been clarified. The issues of web design and the training of professionals in this field are mostly addressed through the disclosure of the essence and mechanisms of virtual reality modeling in the works of J. Bird, A. Honcharov, P. McNail, Y. Nielsen, and others, as well as through the justification of concepts of understanding and comprehending the nature of virtual reality through the prism of contemporary culture in scientific publications by D. Borodaev, D. Kirsanov, A. Lebedev, V. Lukov, A. Ostannin, V. Parnenko, and others.

However, the question of the methodology for developing entrepreneurial competence of future web designers in professional training remains unexplored.

The aim of the subsection is to analyze the realities of professional training for future web designers in Ukraine and develop a methodology for developing entrepreneurial competence, taking into account the industry's specifics.

The increasing consumer demand for website creation services has led to a growing societal demand for the training of web designers. The theoretical analysis of scientific publications, socio-cultural practices, and digital transformation phenomena allows positioning web design as a field within the creative industry, a contemporary form of graphic design. Its main task involves designing web interfaces, websites, web applications, and creating a user-friendly structure for web resources to ensure convenience for con- sumers, among other things. It is important to note that web design services are provided not only by specialized design companies but also by individuals such as freelancers, web designers, or webmasters.

In the conditions of a state of war and with the goal of post-war economic reconstruction in Ukraine, an important part of resource design is seen in providing employment opportunities for individuals affected by the full-scale Russian aggression and involving them in the creative industry. Bringing the web resource in line with the standards of the World Wide Web Consortium (W3C) is also crucial. These standards ensure content accessibility for people with disabilities and users of portable devices, as well as cross-platform compatibility of resource layout. Web design contributes to marketing efforts by promoting and advertising the created resource, ensuring search engine optimization. Through visual means, various tasks can be addressed, such as increasing sales, building trust, and creating a positive image. Alt- hough there are technical differences between web design and graphic design, mainly related to aspects like exhibition stand development or outdoor advertising, many fundamental aspects are shared between these fields. One of the common key characteristics for web designers and graphic designers is the recognized need to acquire the basics of entrepreneurial activities.

In the conditions of the transformation of Ukraine's market economy, entrepreneurship is rightly positioned as the foundation of progressive state advancement, addressing many social problems, including unemployment, poverty, and ensuring a high standard of living for citizens (Alexeeva, 2020; Bazil, 2021). In solidarity with the majority of researchers, we believe that one of the psychological and pedagogical conditions for developing the entrepreneurial competence of future professionals is providing timely psychological and pedagogical support in shaping a positive attitude towards entrepreneurial activities and acquiring relevant knowledge, skills, and abilities to implement them in practical activities, including the creation of business projects (Bazil, Orlov, 2022).

In developing the methodology for the entrepreneurial competence development of future web designers in professional training, we were guided by the definition of entrepreneurship as a sustainable worldview position of an individual manifested in their lifestyle, cultural behavior, business activity, and creative approach to transforming the surrounding world, as well as the ability to independently satisfy their own and others needs. In this context, we find the reasoning of R. Kiyosaki relevant, stating that comprehensive realization of an individuals economic potential is possible in challenging socio-economic situations, particularly when facing financial difficulties. Therefore, anyone who strives not only to preserve but also to enhance their economic status should engage in entrepreneurial activities (Kiyosaki, 2014). For the development of the methodology for enhancing the entrepreneurial competence of future web designers, we identify the following statements by the economist as significant: 1) «Start your own business right now»...; 2) «...to confidently face the future, you need to build it yourself»...; 3) «...asserting responsibility for one's future life is advisable only if the person has developed the ability to control sources of income. And for that, you need your own business» (Kiyosaki, 2014).

Based on the analysis of educational practices in the professional training of future designers, it can be observed that the development of entrepreneurial qualities is included in the content of educational and professional programs, albeit sporadically, alongside the acquisition of specialized knowledge and specific skills. In light of this, we propose the following concepts to be used in exercises aimed at fostering individual-personal qualities of successful entrepreneurs in higher education design students: «personality», «assertiveness», «creativity», «entrepreneurship», and «divergent thinking». Additionally, the methodology should focus on comprehending the essential characteristics of entrepreneurship, emphasizing the key traits of entrepreneurial individuals and their role in satisfying personal and consumer needs. It should also analyze the mechanisms of developing entrepreneurial competence in web designers, construct character portraits of entrepreneurs, examine models of entrepreneurial behavior, differentiate between creativity and entrepreneurship, and emphasize their nature. Furthermore, self-assessment of personal achievements and developmental challenges should be encouraged. The central concepts for the content of the courses should include «individual traits of an entrepreneurial personality», «entrepreneurship», «motivation», «creativity», «goals of entrepreneurial activity», and «launching a business». Therefore, some potential themes and content for specific sessions within the educational and professional training courses for future web designers could be as follows: «Understanding Entrepreneurship: Characteristics of Entrepreneurial Individuals», «Who is an Entrepreneur? Functions of Entrepreneurship: Situational exercises on entrepreneurship», «Character Traits of an Entrepreneur: Identifying the type of person who can

become a successful entrepreneur: Content–oriented characterizations of entrepreneurs», and «The Ideal Entrepreneurial Candidate: Indicators of the ability to start and manage a business: Individual – personal qualities, abilities, inclinations, intentions, interests, values, motivations, goal orientations for launching a business, principles, and worldview beliefs regarding entrepreneurial activities».

The expected outcomes of such sessions are: conscious mastery by the participants of key entrepreneurial concepts within the educational process and their ability to apply them effectively in practice; understanding the importance of integrating professional training with the acquisition of entrepreneurial competence, which becomes evident during the development and implementation of business plans; proficiency in clearly formulating specific decisions that ensure their success in accordance with regional (local) needs; acquiring the ability to plan the stages of implementing generated business ideas; development of skills in coordinated teamwork, including decision-making and evaluation of work results; formation of the ability to characterize and prioritize the needs of individuals as well as the needs of social groups, users of various types of design services.

Based on my own experience and the survey results of instructors involved in the preparation of future graphic design professionals, discussions focusing on identifying potential directions and methods for developing entrepreneurial competence through monitoring studies in the design field and analyzing objects and types of professional activities have a positive effect on students' preparation for entrepreneurial activities. Additionally, coworking sessions that explore individuals resource capabilities in designing strategies for their own businesses, as well as lectures and discussions featuring successful entrepreneurs, contribute to this positive effect.

At the same time, it should be noted that web design work is characterized by specific rules and peculiarities. First and foremost, this includes a well-structured and logical website layout, convenient page arrangement, and intuitive navigation throughout the resource. The speed of page loading and simplicity of the navigation panel should be optimized for any visitor. Additionally, a visually appealing and cohesive geometric and color concept in design will satisfy the client, contributing to the entrepreneurial success of a web designer. Achieving success is influenced by the psychological factor of developing their entrepreneurial competence. Specifically, the ability of a web designer to actively listen to the client's requirements, understand their psychological profile through reflective actions, and incorporate the results of their own reflection into the design creation process. As the saying goes, «If you can't change the situation, change your attitude towards it». Difficulties that arise in entrepreneurial activities in the field of web design are often exaggerated. Usually, they result from inadequate coordination of previous

actions and unjustified decisions, which can be corrected through the use of reflection mechanisms.

Taking this into consideration, it is important to emphasize that web design professionals should not perceive their own existence and business as an endless overcoming of obstacles. Reflective practice can help dispel such notions. The algorithm of reflection is not complex, but it requires heightened attention, responsibility, and practice. By involving future designers in reflective evaluation of task outcomes and assessing the level of entrepreneurial competence, it is advisable to learn how to formulate questions correctly and provide answers to them. Such activities and reflective actions regarding their results motivate students in higher design education to critically analyze design projects in business, informational, and social domains, grasp the essence and mechanisms of information technologies, and master computer graphics. Consequently, a formed worldview and reflective position are affirmed, relevant skills are improved, and the experience of entrepreneurial attempts is reevaluated, leading to personal and professional self-development, self-improvement, and the application of a creative approach to tasks in the field of the creative industry.

It is important to emphasize that in the future, reflective tools will help graduates of higher education institutions establish business relationships with counterparts. In their work with clients, pro fessionals recommend using the modeling of a hierarchical value system, its prioritization, and determining priorities. The relationship between value orientations is analyzed, and based on the results, it characterizes the basic level of interpersonal relations and self-assessment of the web designer and the client of design services. In this regard, during the classes, it is advisable to consider several scenarios of such relationships:

1) Interaction usually does not even begin, except if the entrepreneur openly discusses issues that are wellknown to the client. In such a case, there is a chance for success.

2) The entrepreneur depends on the client who tries to take advantage of the situation and «play poker».

3) Interaction is possible, but additional dividends turn out to be insignificant.

4) Disregard from the client's side, which is related to the lack of incentives for resource mobilization or a high level of internal firm conflicts.

For web designers who plan to engage in entrepreneurial activities, it is important to realize that they are dealing with people, and this communication is the most valuable resource, as the success of entrepreneurial endeavors depends on the results of individual actions, reflection by service providers, and the client's input. Reflection contributes to understanding the origins, causes, and consequences of events that are often perceived as random. This understanding enables the development of a holistic, systemic perception of relationships with staff and external stakeholders. Reflexive-psychological tools facilitate diagnosing

the company's state and its development potential, analyzing external and internal communications, and identifying conflict and risk areas. Through reflection, it is possible to forecast the development of relationships and devise effective measures for their correction. Thus, based on reflection, it is possible to ensure innovation in business management within the creative industry.

One of the modern methods associated with selfactualization and reflective practices of design professionals is the preparation of an electronic portfolio as a system-forming tool for showcasing achievements and a foundation for defining new goals in terms of planning and implementing future activities. The purpose of creating an e-portfolio is to systematize one's understanding of personal achievements, professional competence level, personal qualities, and plans for employment and business development. The portfolio includes accomplishments during professional training at higher education institutions. The approximate structure of an e-portfolio includes the following sections:

– «Personal Information» (Resume, Presentation, Photo);

– «Official Documents» (diplomas, certificates, awards, appreciation letters, recommendation letters);

– «Portfolio» or «Achievements» (significant results of educational and design activities, creative works, research projects, coursework, reports from various types of internships, term papers);

– «Reviews, Plans, Impressions» (essays, plans).

The effectiveness of developing entrepreneurial competence among designers depends on the implementation of such forms, methods, and teaching technologies in the educational process that enable the performance of roles and tasks closely aligned with the realities of entrepreneurial activities in the creative industry. In other words, they stimulate problem-solving, encourage discoveries that are highly related to entrepreneurship, market research in the field of web design services, identifying competitive advantages of the planned firm, defining tasks and goals of its operations, creating and implementing business plans, developing marketing concepts, organizing the firm's structure, monitoring its activities, and analyzing its results, and so on.

To prepare web design professionals for entrepreneurial activities, it is advisable to utilize various forms and types of training that allow for planning changes and processes in modifying the mindset, behavioral patterns, and skills of individuals involved in the educational process. This can be achieved through the acquisition of learning experiences to effectively perform tasks related to small-scale entrepreneurship. Training sessions employ a combination of carefully selected exercises aimed at training entrepreneurship skills. One of the objectives is to teach future designers to make risky decisions and solve problems. To accomplish this, it is necessary to develop skills in generating creative ideas, familiarize oneself with effective research methods for different situations, and learn

to consider things and situations from different perspectives. The use of problem-solving exercises and decision-making exercises is beneficial. A creativity training component is also important, as it helps develop the skills and abilities for creative thinking and innovation, enabling future entrepreneurs in the creative industry to think and act in original, unconventional, and creative ways. It is supported by scholars that there is no single universal training approach. Therefore, training sessions are preferably conducted individually, employing various types of tasks and combinations of methods and trainings for different objectives (Romanovska, 2009).

One of the distinctive features of the professional training of designers specializing in «Entrepreneurial Activities in the Creative Industry» is the acquisition of fundamental knowledge in the field of design through the study of courses such as «Economics» and «Management». This enables the improvement and development of knowledge, skills, and abilities in modern information technologies in the creative industry. The training also focuses on acquiring knowledge and skills in applying contemporary information and communication technologies to solve research tasks and develop information retrieval skills from the Internet.

An innovative and effective form of developing entrepreneurial competence in web designers at the integrative-adaptive, constructive-developmental, and results-oriented stages is through integrated sessions conducted by instructors of courses in the humanities and socio-economic training cycle, such as «Fundamentals of Economic Theory». Additionally, the content of the professional and practical training cycle, including «Continuous Propaedeutic Production Internship at an Enterprise» and «Production Internship at Enterprises», as well as the introductory course «Introduction to the Specialty» and the elective course «Management and Marketing in Design», contribute to this development. To achieve the goals of developing entrepre- neurial competence among designers, instructors can employ various teaching methods, including:

– Methods of developing critical thinking, fostering skills to analyze, evaluate, and generalize facts; for this purpose, brainstorming, SWOT analysis, lectures with presentations, textual source analysis, small group work, expert groups, and taskbased activities are used;

– Methods that promote the development of responsibility, implementation and evaluation of choices, as well as decision-making with an awareness of consequences; thus, discussions, debates, «six thinking hats», «criteria poker», rating discussions, and mind mapping are used;

– Methods that develop imagination, are based on emotions and personal experiences, and create conditions for action: drama, role-playing, modeling, «associative bush», and mind maps.

At the beginning of studying a new topic, it is advisable to create a problematic situation that surprises and arouses the interest and curiosity of future

web designers. It is desirable to use simple interactive exercises such as brainstorming, free microphone, idea circle, fishbowl, and others. The message prepared by students during the motivation of learning activities becomes a kind of «bridge» for understanding new material. In the next stage, it is useful to organize the work of educational participants in small groups. This fosters a sense of responsibility for the collective outcome and teaches future entrepreneurs to cooperate constructively, communicate with each other, be leaders and subordinates, engage in discussions, persuade, defend their own positions, and reach compromises, among other skills. To encourage active participation of future web designers during lecture sessions and to hear the opinions of each individual, techniques such as «Metaplan», «Sentence Completion», «Oxford Debates», discussions, and others are effective. Creative tasks like «Letter of Appeal», «Leave the Last Word for Me», and others also generate interest in studying the subject.

The use of various game-based technologies is successful for fostering the entrepreneurial skills of future web designers. It is during such activities that favorable conditions are created for the development of entrepreneurial qualities. Role-playing games and business simulations are quite effective in this regard, as they help future web designers envision themselves as experts and demonstrate their knowledge and skills, often acquired through the application of anticipatory task methods.

A significant effect in developing the entrepreneurial competence of web designers during their professional training is achieved through well-thought-out seminar and laboratory sessions. During these sessions, the focus is placed on completing various entrepreneurship-related tasks, including creating business plans with detailed justifications for each proposal. To facilitate this, it is advisable to utilize appropriate application software that allows the expert to simulate real-life situations in small business entrepreneurship as closely as possible.

It is worth noting that there is a specially created website on the Internet that functions as a service for simulating business processes («Free Business Process Simulation Modeling Software», dateless). In addition, the following simulators are used in practice to prepare professionals from various fields for entrepreneurial activities: Baton Simulations («Baton Simulations», dateless), Blue Ocean Strategy Simulation (BOSS) («Blue Ocean Strategy Simulation», dateless), Mikes-Bikes-Intro («Mikes-Bikes-Intro», dateless), Capsim – Business Simulation & Assessment Software («Capsim – Business Simulation & Assessment Software», dateless), General Business Management («General Business Management», dateless), Industry Masters («Industry Masters», dateless), RealityWorks Business Education Simulations («RealityWorks Business Education Simulations», dateless), The Business Strategy Game («The Business Strategy Game», dateless).

The development of entrepreneurial competence among web designers is partly facilitated not only by business simulators but also by business accelerators and business incubators based on the principles of self-education. Business accelerators are typically initiated by investment funds. Their goal is to collaboratively create an investment-attractive product at the working version or prototype level within a limited time frame, together with startups. The execution of a clearly defined program lasts from three to six months under the guidance of a mentor (an experienced professional, successful entrepreneur, or top manager) who provides advisory assistance, support, or necessary investments to realize entrepreneurial ideas. Individuals involved in the activities of a business accelerator typically work individually on a project that has passed a competition, attracting financial resources and experienced expert mentors. Such projects often receive venture financing from funds (Startup Incubators and Accelerators, 2021). The organizational mechanism for creating an accelerator is not complicated: startups (individuals with innovative thinking who prefer to create entirely new products or services) initiate their original ideas, involve three individuals with functional roles such as «producer», «marketer», and «financier» to implement them, and form a team of like-minded individuals. Typically, the role of a startup founder involves presenting the idea, clearly formulating tasks for other team members, establishing and supporting constructive interaction. The main task of the «producer» is to create an innovative product or technology. The role of the «marketer» involves determining the target audience for the new product or service, creating conditions for its successful implementation, ensuring product market entry, and generating demand for it. The tasks of the «financier» include attracting investments and financial planning (to plan expenses and actions in a way that ensures the received investments do not run out before the startup's establishment takes place).

There are hundreds different acceleration programs functioning in the global Internet network. For example, the «Kyiv IT Cluster» program («Kyiv IT Cluster», dateless) is aimed at fostering entrepreneurship and supporting innovative individuals in the development of innovative products and services. The key objectives of the program include the development of entrepreneurial skills among youth, facilitation of the creation of breakthrough competitive businesses, providing assistance to teams in improving their product, achieving wide-spread adoption in the Ukrainian market, and expanding into European markets.

An interesting approach is used in the acceleration programs of the Lviv center for entrepreneurship «Center for Entrepreneurship» («Center for Entrepreneurship», dateless), Investment Platform for participants of the venture market Startup.Network («Startup.Network», dateless), the educational portal «Build Your Own» («Build Your Own», dateless), the Acceleration Hub «Sector X» («Sector X», dateless) which combines acceleration and educational programs for startups, corporate innovation programs for businesses, as well as services for

venture investors. Participants are also offered online courses such as «How to Start Your Own Business?», «PR Strategy for Small Businesses», «Developing a Social Media Strategy», «Formula for Rapid Business Growth», «Effective Business Plan», «YouTube for Business» and more.

A crucial aspect of developing entrepreneurial competence is that future web designers acquire the ability to independently acquire knowledge and effectively apply it to create original products that not only satisfy their own needs but also improve the lives of others. In this regard, the development methodology of entrepreneurial competence for future designers involves the use of various types of business simulators. Among the most common in modern practice are thematic simulation-role or business games (tabletop group business simulations), which serve as a kind of game field (a simplified model of the main life cycle processes of a production company) for individuals performing the functions of top managers in different companies. By following provided textual instructions, they learn to make correct management decisions to increase the efficiency of their own business and the value of the company. This type of simulator is aimed at novice entrepreneurs and higher education seekers. Expert business simulators for crisis management operate on computer software platforms, allowing users to choose specific logical models for making management decisions. This type of simulator is primarily aimed at TOP managers of companies, as well as multidisciplinary crisis management professionals who provide services for crisis situations and bankruptcies. In addition to the mentioned simulators, specialized designtype simulators, such as Automated Workstations (AWS), are used in business practice. The development trend of these simulators is associated with the rapid dynamics and widespread adoption of process management. Their typical structure includes software elements for individual and group modeling of business processes, tools for creating business rules and their use in management, modules that enable the formation of IT infrastructure and its integration into real business processes, tools for managing various types of work (workflow), a repository of business process models, and an analysis and reporting module that allows for monitoring and reengineering of business processes. These simulators are useful for forming a corporate knowledge bank regarding the management system of any company. Currently, the use of interactive problem-oriented business simulators for distance learning (a kind of «serious games») that reproduce real business processes in an individual or group format is gaining popularity. These simulators diagnose and teach users. For example, in the interactive business simulator Virtonomics Entrepreneur («Virtonomics Entrepreneur», dateless), users can simulate a virtual small enterprise, practice various actions related to business process functioning and resource management, and compete in the market.

The proposed methodology for developing entrepreneurship skills in future web designers will contribute to their conscious understanding and solid grasp of

the essential characteristics of small business, types, methods, algorithms, and mechanisms of entrepreneurial activity. Since the productive work of higher education design students is possible through mutual learning, group work, discussions, and variative-comparative information processing, the main task of the instructor is to create an atmosphere of trust and comfortable conditions for constructive collaboration, development of business initiative, leadership qualities, and a sense of managerial responsibility for the group's activities. It is extremely important to provide necessary sources of information, prepare texts for discussion during classes and for independent creative activities of design students. The level of formation of key competencies for future web designers and successful entrepreneurs will depend on the scientific rigor and reliability of the information, appropriate text volume, properly formulated questions for its processing, and the developed action algorithm.

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