

## USING DESIGN THINKING IN ESP TEACHING AND LEARNING

### ЗАСТОСУВАННЯ ДИЗАЙН МИСЛЕННЯ НА ЗАНЯТТЯХ З АНГЛІЙСЬКОЇ МОВИ ПРОФЕСІЙНОГО СПРЯМУВАННЯ

*Constant technological advancements trigger changes and developments in all sectors of life calling for new approaches to education that can equip learners with the up-to-date skills necessary to be a successful and sought-after professional. As a learner-centered approach, design thinking, integrated into the sphere of English for Special Purposes provides the tools that can enhance learners communicative, critical and analytical skills through solving design challenges. In the context of ESP, design thinking offers a fresh perspective that encourages students to become active participants in their learning journey, enhancing their English language proficiency and boosting confidence. The purpose of the article is to examine the possibilities of incorporating design thinking as a teaching approach to enhance critical thinking and communicative skills of public administration students in the ESP classroom. The article explores the historical development of design thinking and its gradual integration into various disciplines across different sectors. Unlike traditional teaching methods, which often focus on passive knowledge acquisition, the design thinking approach engages learners in real-world challenges. Theoretical justifications for defining design thinking as an "approach" in the educational context are provided. The study examines the specifics of each stage of the design thinking process and outlines a possible framework for its application in the ESP classroom for Public Administration students. Additionally, it is highlighted that at each stage both general competencies and language-specific abilities can be developed. The article also emphasizes the need for further research on the impact of design thinking on language fluency in ESP and calls for the development of methodological recommendations and instructional materials to ensure the effective implementation of this approach.*

**Key words:** design thinking, ESP, learner, critical thinking, public administration.

*Технологічний розвиток зумовлює зміни у всіх сферах життя, що вимагає нових підходів до освіти, яка б розвивала сучасні навички необхідні для успішної кар'єри.*

*Як студенто-центричний підхід, дизайн-мислення, інтегроване в англійську мову професійного спрямування, надає інструменти, які можуть покращити комунікативні, критичні та аналітичні навички студентів через розв'язання дизайнерських задач. У контексті англійської мови професійного спрямування дизайн-мислення пропонує свіжий погляд, який заохочує студентів ставати активними учасниками навчального процесу, покращуючи рівень володіння англійською мовою та підвищуючи впевненість у власних комунікативних навичках. Мета статті – дослідити можливості використання дизайн-мислення як навчального підходу для розвитку критичного мислення та комунікативних навичок студентів, які вивчають англійську мову за професійним спрямуванням, на заняттях з англійської мови професійного спрямування. Стаття досліджує історичний розвиток дизайн-мислення та його поступову інтеграцію в різні дисципліни та сфери діяльності. На відміну від традиційних методів навчання, які здебільшого зосереджені на пасивному засвоєнні знань, підхід дизайн-мислення залучає здобувачів освіти до розв'язання реальних проблем. У роботі наведено теоретичне обґрунтування визначення дизайн-мислення як «підходу» в освітньому контексті. Дослідження аналізує особливості кожного етапу процесу дизайн-мислення та пропонує можливий алгоритм його застосування на заняттях з англійської мови професійного спрямування для студентів спеціальності «Публічне управління та адміністрування». Особливо підкреслюється, що кожен етап сприяє розвитку як загальних компетентностей, так і мовних навичок. У статті також наголошується на необхідності подальших досліджень впливу дизайн-мислення на формування мовної компетентності в ESP і надається рекомендація щодо розробки методичних матеріалів для ефективного впровадження цього підходу.*

**Ключові слова:** дизайн мислення, англійська мова професійного спрямування, здобувач освіти, критичне мислення, публічне управління.

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**The problem statement.** Education in the 21st century has seen a boom in the development of various innovative approaches to learning and teaching: from the communicative approach [20; 21], aimed at interaction and real-world communication, to task-based learning [1], to flipped classrooms [5, 19]. Educators all over the world seem to be in constant search for strategies that can enhance learners' engagement and bring forward their autonomy. The need to incorporate new ESL approaches is mainly related to emerging technologies, such as language learning applications, virtual reality, artificial intelligence and adaptive learning platforms, which further expand the horizons of foreign language education, enabling more personalized, engaging and immersive

learning experiences while prioritizing creativity, collaboration, and practical problem-solving.

Despite the pedagogical search, challenges such as maintaining learners' attention, retaining their motivation, addressing their needs, and fostering critical thinking still remain prevalent in many ESL classrooms. Moreover, after years of COVID online learning and forced online learning due to the Russian-Ukrainian war, learners sometimes show some lack of interest in using technology in the classroom and long for interpersonal communication and collaboration, instead. For public administration employees the ability to think critically and communicate effectively is indispensable as these skills, along with analytical skills and fluency in a foreign language not only

shape effective governance but also determines the impact of public policies on communities. As global challenges grow increasingly complex, the need for innovative teaching methods that prepare future public administrators to address real-life issues has never been greater.

The search for effective and comprehensive teaching approaches, coupled with the fast-changing employment requirements, has triggered the rise of methodologies that go beyond traditional pedagogical practices. Among these, design thinking, as a human-centered approach to tackling issues and searching solutions in innovative and creative way, is relatively new to the foreign language teaching.

#### **Analysis of recent research and publications.**

Design thinking has traditionally been applied as a mindset for creative problem-solving in fields like architecture, product modelling and engineering. Therefore, there is an abundance of scientific publications and research on the use of design thinking in social marketing; software development, graphic design, industrial engineering and other art and technological fields. and others.

Design thinking has been given increasing traction in education in recent years. Thus, in American and Canadian scientific sphere it is represented by founders of IDEO D. Kelley and T. Brown, S. Gonen, (elaborating principles of design thinking in education) [14]; D. Scott & J. Lock (exploring the role of teachers in the design thinking process); W. R. Penuel (implementing design thinking in middle school classes); E. Han, R. Lex; in Europe by K. Tchimel [22] (DT as a tool for innovation in higher education), B. Lawson, S. Simone. In *Australia* design thinking has been researched in terms of its creativity, collaboration and culture stimuli by J. H. Lee, M. J. Ostwald, N. Gu.

The design thinking methodology has gained so much popularity that the renowned universities offer certified programmes (Stanford and Harvard Universities in the USA and Potsdam University) [7; 15; 16] and the teams of large publishing houses in the field of language teaching, such as Express Publishing, suggest implementing the design thinking methodology in English language teaching [11].

Design thinking as a pedagogical tool was researched by R. F. Dam [8], R. Hansil [15], C. Weiss, B. Kim & L. Tan (DT for ESL curriculum design); K. Tchimel studied DT as a teacher training approach [22].

In Ukraine design-thinking methodology has been researched in the works by K. Holubchak, T. Habrel (application of DT in architecture), M. Orliv (design thinking in public administration as a tool for competence development of civil servants), V. Petrenko & M. Liutyi (DT for leadership); N. Udrys (DT and design management in business); N. Sytnyk & S. Perminova (DT as a tool for organizational learning) and others. The number of publications on the use of design

thinking in foreign language teaching is still limited both in Ukraine and abroad. The issue has been studied by Y. Hryneva and M. Burlak T. Fursenko [4]; V. Luchkevych [2] in Ukraine.

**Outline of unresolved issues.** The overview of the literature and scientific publications available online from open sources has proven that there is lack of systematic examination of successful integration of design thinking methodology into teaching and learning a foreign language. As a result, learning resources and methodological guidelines on applying design thinking in ESP classroom are also scarce.

**The purpose of the article** is to explore the possibilities of using design thinking as a teaching and learning approach to enhance critical thinking and communicative skills of public administration students in the ESP classroom.

**Results and discussion.** Design thinking (DT), as an innovative method of creating new things, has been developing and shaping for several decades and includes the work of scientists from different disciplines, innovators and thought leaders. The 1969 work "The Sciences of the Artificial" by H. A. Simon is considered fundamental to design thinking, where design is first seen as a "way of thinking" and should be part of any professional training [3].

It is still debated who first coined the term "design thinking" due to its deep roots, but it has definitely evolved through times and industries. Some believe that some components of design thinking (prototyping and testing through observation) were introduced and developed by H. Simon [9]; the necessity for human-centeredness in the design thinking process and its iterative nature were pioneered Stanford University professor Rolf A. Faste [13], which allowed this approach to be used in business and education. However, the design thinking methodology gained popularity thanks to the work of the consulting company IDEO and its founder David Kelley and ideologist Tim Brown, who pointed out that design thinking is not so much about thinking about what to create as about creating to think clearly and clearly [9]. Later, the Stanford design school became the outpost of the formation and development of the design thinking methodology in the field of project-management and further expanded the method as a strategy and tool for identifying problems and finding the best solutions out of a range of options.

Since its emergence, DT has evolved into a methodology with various interpretations and adaptations depending on the discipline where it is used or its definitive purpose. Thus, some design schools define DT as a four-steps process [15], while other scientists emphasize the importance of including the sixth step (Implement) in addition to the five-step design used by Stanford University [8].

The traditional model of design thinking methodology, developed by the Hasso Plattner Institute

of Design at Stanford University (also known as the d.school), involves a five-step process of creative problem-solving. These five steps are [7; 8; 12; 16]:

1) *empathizing* – this stage involves familiarizing the participants with a design challenge at hand and building empathy as the set problem is usually not their own or may not resonate with them;

2) *defining* – The define stage presupposes grounding the interview findings to describe the essence of the problem. and state group's "point of view" [12];

3) *ideating* is considered to be a transitioning stage when designers move from having a problem to resolving it. At the ideate stage, participants create a pool of as many ideas as possible. This stage is the most creative one as the participants are invited to express even the wildest ideas and be superlative to address the problem since the most unexpected solutions arise from the wildest ideas. It is important at this stage not to prohibit "bad" behaviour [12] but at the same time to choose the most appropriate idea out of the pool;

4) *prototyping* involves creating a physical representation of selected ideas which may lead to a feasible solution. As stated by Sunyoung Lee-Ellis and James Bernhardt in [17], it is a "quick unpolished example of the imagined solution to a problem";

5) *testing* is the final stage and involves testing previously created prototypes, checking them for compliance with the needs of the people interviewed, and refining the prototype.

Obviously, the adaptability of the DT process reflects its versatility and applicability to almost any sphere – from business and technology to healthcare to education. As an approach with an individual in mind, it aligns closely with the goals of English language teaching frameworks, where fostering communication, critical thinking, and creativity are paramount. The use of design thinking in the educational process also complies with the skills identified by the World Economic Forum as crucial for future employment, namely citizenship skills, innovation and creativity skills, technological and digital skills, and interpersonal skills [10].

It is worth noting that design thinking is usually referred to as a methodology or method. In the work "Approaches and Methods in Language Teaching," Richards and Rodgers define an approach as "a set of correlative assumptions dealing with the nature of language teaching and learning" [20], while a method is described as "a general plan for the orderly presentation of language material" [20, p. 54]. As we can see, there is a distinctive difference between approaches and methods, where the former constitute a more general notion, and the latter describes a way of implementing the approach through syllabus, progression, learning materials [6]. Therefore, in our research, design thinking is viewed as an approach

rather than a method, as it is a broad problem-solving mindset that can be applied across disciplines rather than a strict, step-by-step teaching method. However, within the context of ESP teaching, it can provide a basis for specific methods and techniques used in the classroom.

It is worth noting that to effectively incorporate the design thinking approach in the process of teaching a foreign language, it is advisable to adapt the traditional stages of DT. The expediency lies in the fact that completing all 5 stages (according to the Stanford University methodology [7]) may take from 3 to 5 hours or even more, depending on the task, which is difficult to implement given the available classroom time. Therefore, we suggest that the design approach be applied to foreign language learning by simplifying it, or breaking it into chunks where part of work is assigned as an individual or group homework.

In the process of ESP teaching and learning that incorporates design thinking, the focus is not solely on the final outcome or design solution but rather on the process of establishing meaningful contact among participants and the quality of their interaction and collaboration [14]. After all, if students do not come up with a final solution to a design challenge, the very process of searching for solutions can yield valuable results as active involvement in communication and collaboration allows students to apply their knowledge and language skills in situations that closely resemble real-life contexts. Moreover, this approach "espouses positivity and eliminates the fear of failure while maximizing input and participation from the participant" [18].

It is important to understand that while design thinking promotes a creative thought-provoking process, when applied in foreign language lessons, the teacher as a guiding supervisor must thoroughly design additional supporting tasks, activities and questions for each stage. Therefore, we propose to further examine the specifics of implementing design thinking for ESP lessons at some stages.

At the '*empathize*' stage, learners work in teams with assigned roles. Their main task is to brainstorm as many interview questions that a design challenge poses as possible in order to better understand the Persona who will be the center of their ideation and prototyping stages. If time allows, at this stage learners are asked to conduct interviews to collect information related to the stated design challenge.

At this stage students can be assigned slightly different problems to analyze for conducting interviews [2]. For example, for the topic "Digital Governance", the design challenge can be to improve access to digital services among different walks of society. Students then can be divided into 'citizens' and 'civil servants' and view the challenge from different perspectives; or both groups can be 'civil servants' who have a different government system to examine

(‘healthcare’ vs ‘job centers’). This way, learners can take turns interviewing their peers from another group to gather personal opinions and insights for subsequent analysis and empathy building. This approach is suggested for several reasons: 1) there may not be enough time available for interviewing outsiders; 2) outsiders may not have sufficient English proficiency, which could hinder realization of the intended educational objective of the approach.

As an option, students can conduct the interview part as a home assignment [2] or interview peers from other academic groups, provided it does not disrupt the educational process. The latter option offers multiple benefits to both groups as it expands the range of responses, allows generating more diverse ideas for further discussion, and, most importantly, fosters social interaction. By communicating with students outside their immediate group, learners can gradually overcome anxiety about using English with unfamiliar individuals, thereby improving both their language skills and confidence in real-life communication.

At the *define* stage, students within their groups analyze and summarize the information, opinions and stories that they collected during the previous stage to clearly define the core problem and determine who is at the center of their design challenge and who they want to help, that is what kind of person gains most benefits from the designed solution. From the language learning perspective, this stage allows students to practice both active listening and reproducing the information they have just heard; they learn to generalize, summarize, and express opinions.

At the *ideate* stage, the group task is to think of as many possible solutions as possible. It is important not to restrain students from expressing unconventional, even seemingly weird ideas. As students work in groups to generate ideas, they engage in real-time discussions, negotiate meanings, and justify their proposals. This stage helps students practice brainstorming technique and making suggestions (*What if we tried...? How about...? Another option could be...*); keep track of ideas by taking notes, which supports listening and writing development. By actively ideating in the ESP classroom, students evoke their higher order thinking, put into practice vocabulary that they may otherwise rarely use.

At the *prototype* stage students have to construct a prototype, which in the context of English for Public Administration can take the form of written reports, memos, draft policies, proposals of digital service, or mock presentations for government initiatives. As suggested by Luchkevych, this stage often overlaps with traditional academic tasks and is familiar to students, but differs by being become more creative and interactive, requiring students not only to analyze theoretical knowledge but to translate it into practical solutions [2].

At the *test* stage, students are asked to present or pitch their final prototypes to their peers from an opposing group. As an extension activity, the opposing group can be tasked with giving feedback, asking follow-up questions to prove the feasibility, clarity, and practicality of the proposed solutions or suggesting modifications or improvements to the proposal.

This way, the activities mimic professional public sector decision-making, where proposals undergo scrutiny before implementation and allow learners to polish their negotiating, public speaking and debating skills.

**Conclusions.** Incorporating design thinking approach into ESP classroom provides an educational shift in teaching approaches thanks to its promoting students’ practical engagement as compared to passive acquisition of knowledge. Design thinking in ESP has a potential to become beneficial to both – teachers, who get more chances to create motivating and inspiring learning scenarios for students; and students who can develop their communicative skills in a relaxing and at the same time challenging environment, apply specific language and vocabulary in situations close to real-life. Furthermore, by solving design challenges, students can advance in their ability to think critically and analytically, while actively using a foreign language, cultivating tolerance to the views and opinions of others, and embracing innovative ways of taking up and resolving professional challenges, which is an increasingly sought-after employment skill.

Besides developing skills – critical thinking, analytical and problem-solving for the future employment, each of the stages of the design thinking process gives opportunities to enhance various language learning aspects, which are essential for a confident English-language speaker: questioning techniques, summarizing, problem statement, presenting, negotiating, debating and giving constructive feedback.

Further research should be aimed at 1) examining the effectiveness of using design thinking in the context of enhancing language fluency and 2) developing methodological resources and practical guidelines for seamless learning-designing experience and efficient time management.

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