APPLYING DESIGN THINKING IN PUBLIC POLICY FORMULATION AND IMPLICATIONS FOR VIETNAM

Nguyen Ha Thi Quynh Trang[1], Pham Thi Tham
National Institute for Science and Technology Policy and Strategy Studies

Pham Thi Linh
International and Graduate School,
Vietnam Institute of Science Technology and Innovation

Summary:

Design Thinking first emerged as a concept around the 1950s - 1960s of the 20th century. However, the role and contributions of design thinking have been recognized not only in the field of design but also in the progress of science, business management, and education... In the field of public policy, design thinking is considered an approach that can be employed to tackle complex issues, offering tools for managers to explore creative opportunities, streamline organizations, and manage resources more effectively. In the policy-making stages, design thinking is regarded as an approach to better understanding and structuring the policy issues. It is characterized by a creative process involving multiple stakeholders, especially policy beneficiaries. Besides systematizing the basic concept of design thinking, this paper will summarize the potential of applying design thinking in the public policy cycle and discuss its debates and limitations, thereby offering suggestions for Vietnam.

Keywords: Design thinking; Public policy formulation.

Code: 24102801

1. Introduction

DT is a relatively new concept that first emerged in the 50s - 60s of the 20th century. Its role and contributions have been recognized not only in the field of design but also in the advances of science, education and business administration *(Do Duc Lan et al., 2021),*... DT is considered one of the solutions that can be used to solve complex problems. DT provides tools that help managers explore creative opportunities, streamline organizations, and control resources. In the public policy cycle, DT is viewed as a way to better understand and structure the policy issue. It is characterized by a creative process and the participation of many stakeholders, especially policy beneficiaries. So, systematizing the basic concepts of DT and analyzing its potential applications in the public policy cycle will provide basic arguments for making the suggestions for its implementation in Vietnam.

---

[1] Author's contact: quynhtrangrudn2018@gmail.com

2. Basic concepts

According to Vietnamese documents currently circulating in Vietnam that the authors have accessed, Design Thinking (DT) is translated as " Tư duy thiết kế". In simple understanding, design thinking - "Tư duy thiết kế" - is an approach, a thinking framework that users can apply in many different fields. When it first appeared in the mid-20th century, after World War II, DT was used mainly to focus on the architecture and engineering context, which were considered to be the fields with great changes during this period. In the period after that, there was a trend, among the design community, to search for new design ways and methods to improve work efficiency. After a while, the search solutions did not show clear effectiveness, so designers shifted from searching for methods to searching the "ways of thinking" to create products. At that time, the term "design thinking" was still not popular but was understood only as how designers think creatively.
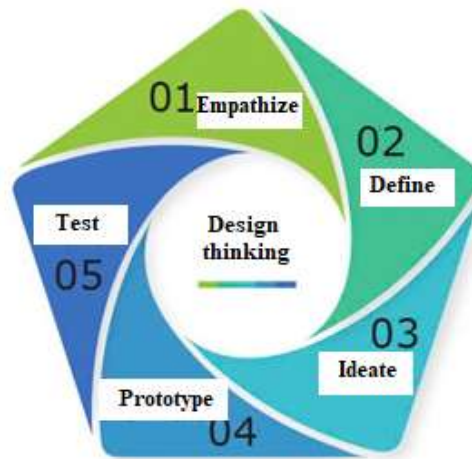
In 1969, in Herbert Simon's Nobel Prize-winning publication "The Science of the Artificial", the design was introduced as a problem-solving method, outlining the initial linear model of analysis-synthesis-evaluation (*cited in Yin et al., 2013*). In 1987, Rowe mentioned the term "design thinking" in his publication "Design Thinking", providing a systematic description of the design process in architecture and planning. Nearly 20 years later, in 2005, Stanford University established a d.school to promote interdisciplinary design thinking education. By 2005-2012, the term "design thinking" had been expanded and defined more clearly. Two researchers who contributed greatly to shaping the concept of design thinking were Brown (2009) and Martin (2009). When it comes to DT, people often think of a cyclical, iterative process for innovation, non-linearity, and continuous improvement in which the "designer" seeks to understand the "user" (customer or citizen), redefines problems to create creative solutions for prototyping and testing, and searches for strategies and alternatives[2] (*according to the Interaction Design Foundation*).

In this article, *design thinking is often understood as a series of research, assumption testing, and problems redefining to find solutions or to build better strategies. Design thinking can be considered a method that helps find new, breakthrough solutions to solve a specific problem in an optimal way. This can be a cyclical process that can be repeated to innovate and continuously improve (Nguyen Ha Thi Quynh Trang et al., 2024).*

According to design thinking, the implementation process consists of *5 steps* (*according to Uebernickel and Brenner, 2020; Do Duc Lan et al., 2021*),

---

[2]Source:*https://www.interaction-design.org/literature/topics/design-thinking#:~:text=Design%20thinking%20is%20a%20non,solutions%20to%20prototype%20and%20test.*

which are: Empathizing; Problem defining; Ideating; Prototyping; and Testing (Figure 1).

Source: Authors, 2024

Figure 1. Design thinking implementation process

The birth of DT is considered one of the approaches to increase the ability to solve wicked problems that conventional solutions have difficulty or cannot solve (*Rittel, 1973*). Wicked problems are considered the focus of design thinking because of their complexity, and multidimensionality, require an integrated approach to deeply understand human needs, motivations, and behaviors. Up to now, design thinking has been considered one of the tools used to solve problems in many fields (*Buchanan, 1992*).

2.1. Policy and public policy

According to Harvard Law School[3]: "Policy is a course of action to solve a political problem. Policy making itself is a process, formed by public or private groups who formulate strategies related to a political problem, and carried out by government officials who implement policies as specific programs and actions. Therefore, policy-making does not only refer to the final results of policies but generally also analyzes government decisions and how different groups try to make government policymakers act in a particular way".

According to B. Guy Peter (2006), "*Public policy is the totality of state activities that directly or indirectly affect the lives of all citizens".* Thomas R. Dye (2016) said, "*Public policy is what a government chooses to do or not to*

---

[3]   Source: *https://hls.harvard.edu/bernard-koteen-office-of-public-interest-advising/about-opia/what-is-public-interest-law/public-interest-work-types/policy/*

do". According to William N. Dunn (2017), "*Public policy is a complex combination of interrelated choices, including decisions not to act, made by state agencies or state officials*". Public policy is also defined in the document on "Administrative Terminology" (National Academy of Public Administration) as "*the regulations on the state's response to issues arising in community life, and that are expressed in many different forms, to promote social development in a certain direction*" or "*a series of decisions and actions of the State to solve a common problem arising in socio-economic life according to a defined goal*".

In Vietnam, public policy is one of the basic tools used by the State to perform the state management function[4]. In this study, public policy can be understood as *the basic tool and method for the state to orient development and pursue the common interests of society. Public policy is proposed by the state* and *has a large scope of impact on political, economic, and social life at the national level, a locality, an industry, a group of people, or a social community.*

2.2. Public policy making process

The policy-making process, also known as the policy cycle, describes the logic of the formation and development of public policy, along with the roles and relationships of the subjects participating in this process (*Kraft, Fulong, 2015*).

According to many authors *(Nguyen Anh Phuong, 2020; Mintrom and Luetjens, 2016)*, the policy cycle includes three main stages: policy making, policy implementation, and policy analysis and evaluation. In chronological order, the steps can be divided as follows:

(1) Identifying and defining the problems arising in social life (Defining policy problems);

(2) Setting an agenda;

(3) Finding and proposing solutions - policy options;

(4) Policy formation;

(5) Policy adoption;

(6) Policy implementation;

(7) Policy analysis, evaluation, adjustment, and supplementation.

---

[4] Article 26, 1992 Constitution, amended in 2001: "The State unifies the management of the national economy through laws, plans, policies…".

Although divided chronologically, in reality, some scholars can group the steps, even the first 4 stages of the above-mentioned public policy cycle, to describe the creation of a complete (draft) policy, with many concepts used (with similar meanings), namely: Policy formulation/ Policy design/ Policy construction/ Policy planning/ Policy making...) *(according to Nguyen Anh Phuong, 2020).*

Policy formulation - in this study, this stage is called "*Public policy formulation*". *Public policy formulation is the entire process from setting the agenda to formulating and promulgating policies to solve a public problem*[5] (from step 1 to the end of step 5). In this article, the authors only focus on the application of DT in the stage of public policy formation or public policy formulation. This is the initial step in the policy cycle and is also a particularly important step.

3. Potentials of applying design thinking to public policy-making

In design thinking research, there are some common keywords, often mentioned as "user/beneficiary-centered", "prototype", and "stakeholder interaction"... In particular, design thinking focuses on users (products, services)/beneficiaries (policies), starting from the points of view of users/beneficiaries, and continuously assessing their needs, expectations, and behaviors. Through capturing and understanding the needs and actual experiences of users/beneficiaries, DT aims to provide more suitable products and services, to improve their satisfaction. Therefore, innovation is both a prominent feature, the center point, and the goal of DT, encouraging designers to break away from traditional thinking methods, looking towards and practicing creative, different, and intuitive approaches. Basically, DT is an open and non-linear model.

Because of the above characteristics, although DT initially appeared in the private sector (IDEO, Stanford School of Design, etc) but is now widely applied in the public sector, it is believed that: Strengthening connectivity and diffusion, helps to solve more effectively the socio-economic problems with increasing complexity (climate change, inequality,...), connecting stakeholders, managing interests and citizens, in which a topic of interest is that design becomes a strategy associated with innovation (*Brown, 2009*).

According to the tradition of theoretical research and teaching of public policy, design has long been considered a component of policy development

---

[5]Source:
https://hocvientuphap.edu.vn/boiduong/Lists/ThongBaoNhapHoc/Attachments/203/Tai%20lieu%20BD%20ngach %20CVC%20ban %20hanh%20theo%20Q%C4%90%20so%202720-%2028.12.2018%20cua%20BNV.pdf

(*Howlett, 2010; Lynn and Gould, 1980; Scheider and Ingram, 1997*). Policy implementation depends on product and service design (*Alford, 2009; Lipsky, 1980*). In practice, researchers have little information about how policymakers define problems, design criteria, methods used in the policy design process, and whether "design thinking" is transformed into policy activities (*Mintrom and Luetjens, 2016*).

As social challenges increase, governments are shifting from traditional policy approaches to flexible, collaborative methods such as design thinking. Design thinking is considered a new method of engagement in public policy and service design, combining creativity and imagination. Although DT is considered to have great potential for application in public policy making, there is still little research on this topic *(Yang and Wang, 2023).*

DT helps narrow the gap between public services provided by governments and those who benefit.

Researchers argue that design thinking is a tool that policymakers and governments need to consider because there are many gaps between the public services that governments provide and what citizens want. Shergold (2015) argues that: Good policy should exploit the views of those who are likely to be affected by the policy proposal.

DT helps solve wicked problems with creative thinking.

In today's turbulent times, governments are increasingly faced with many wicked problems such as climate change, migration, epidemics, national security, etc. (*Buchanan, 1992*). The characteristic of such problems is that there are many different stakeholders involved, with different goals, interests, and perceptions, solutions for one person or group of people can increase problems for others. At the same time, people's expectations for public services have increased. In this context, policy design methods are seen as one of the promising solutions that provide smart and appropriate ways to empathize with people and their problems, and simultaneously find opportunities and solutions that are mutually beneficial (*Bason, 2016; Mintrom and Luetjens, 2016*).

Developing from the five basic steps of the DT process, Mintrom and Luetjens (2016) propose five steps of the DT process in public policy making, which are: (i) Empathetically observing the target group; (ii) Explore the problem; (iii) Canvassing possible solutions; (iv) Developing a prototype solution; and (v) Testing the prototype with the target group (Figure 2).

The authors suggest that DT practitioners should empathically observe target groups to identify problems and outline possible solutions. Prototype

development and testing are carried out iteratively in collaboration with the target group to ensure that the proposed solution is fit for purpose. Mintrom and Luetjens (2016) also introduce five main strategies for applying DT to public policy-making, which are:

(1) Environmental Scanning: This strategy is supposed to explore the current behaviors of individuals or groups of individuals in a given locality and the outcomes that arise from those behaviors. This strategy also seeks to identify trends that may influence future outcomes (*Fahey and King, 1977*). Environmental scanning aims to fill the knowledge gaps. This strategy will help to gather the views and perspectives of users/beneficiaries and this in turn will help to enhance the empathy of policy developers towards policy beneficiaries. This strategy can be used when considering a new policy area or improving an existing policy.
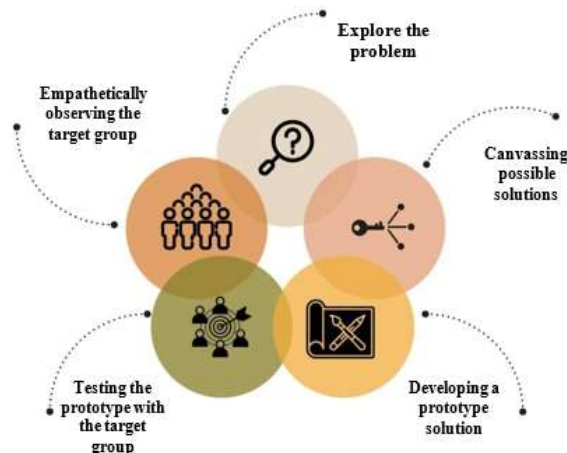

Figure 2. Design thinking process in public policy making

(2) Open-to-learning conversations: Having a diverse group of people involved in the policy-making process is important. Open conversations that encourage divergent thinking facilitate collaboration to come together to find creative solutions and new options. This is not a linear process.

(3) Participant Observation: This strategy refers to the ability to identify important and seemingly unimportant details to gather information. While Environmental Scanning facilitates broad exploration of a problem, Participant Observation requires engagement with people who experience specific problems.

(4) Sensemaking: This is an "action-oriented" process that people spontaneously go through to integrate experiences into their understanding of the world around them.

(5) Mapping: Mapping strategies help to understand how different ideas relate to each other. Mapping allows designers to visualize connections and discover emerging patterns. Mapping can be done by placing an idea or by putting the user at the center and developing a map.

The above five DT strategies are argued to be used in combination to enhance the goals, development, and implementation of public policies.

According to Wannawwijit (2021), DT is a creative problem-solving concept that integrates the user perspective. The focus is on actions to find solutions to human problems. *Design thinking can be applied to the public policy process in two stages*:

1*) Problem identification and agenda setting* (Steps 1+2): Use observation, interviews, and conversations with participants to better understand the target group (Empathize). Then, establish a problem framework (Define) to find solutions.

2*) Policy formulation* (Steps 3+4+5): Brainstorming (Ideate) can be applied in the process of analyzing policy alternatives by allowing different groups of people, including stakeholders, to come up with alternative solutions. Then, create a policy model (Prototype) and do the policy testing before announcing the policy. Applying design thinking to the public policy process will take the public policy process one more step further, namely a policy testing step, which will make the public policy development more accurately address the problems of the people.

Normally, policymaking incorporates stakeholder consultation late in the process, after the policy problem has been defined, policy options have been analyzed and policy challenges have been broadly accepted. DT emphasizes the value of early engagement of the stakeholders. Many scholars have highlighted the use of DT as a way to provide information for policy problem definition (*Buchanan, 1992; Dorst and Cross, 2001; Liedtka et al., 2013; Rowe, 1998*).

In fact, in recent years, many governments have been experimenting with policy labs and are applying design methods or design thinking to their core processes of policymaking, service provisioning, and decision-making. The emergence and growth of policy labs reflect governments' growing interest in evidence-based policymaking and the application of "design thinking" to the policy-making process.

There were over 100 policy labs worldwide *(Whicher, 2021).* These policy labs support governments and stakeholders to draw on scientific evidence, generated through pilots, prototypes, and simulations to help policymakers

and service providers refine their practices before implementation and scaling up nationally.

4. Implications for Vietnam

In Vietnam, the number of Vietnamese publications on DT is not much, mainly the translations of works by Ossann et al. (2020), Lewrick et al. (2022), and Lewrick et al. (2023), focusing mainly on businesses, providing additional tools to optimize production and operation processes. According to the authors' initial survey, apart from some updated online teaching materials of the Fulbright Vietnam Master of Public Policy Program, there are currently no publications in Vietnam on the topic of applying DT in public policy making. This indicates that in Vietnam, there are not many academic studies related to DT, some studies are mainly synthesizing foreign documents.

Trinh Thi Kieu Anh's research[6] suggests that the policy-making process in Vietnam is carried out sequentially through the following steps: Stating the reasons for policy-making; Drafting policy options; Selecting the best draft option; Finalizing the selected option; Appraising policy options; Deciding to issue the policy; Announcing the policy. In fact, Vietnam's public policies are mainly institutionalized by Government decisions, so the public policy-making process is carried out according to the provisions on issuing Government resolutions in Articles 59, 60, 61, 62, 63, and 64 of the Law on Promulgation of Legal Documents 1996, amended in 2002.

Researches by Phung Thi Phuong Thao (2016) and Trinh Thi Kieu Anh both analyze the shortcomings of the public policy-making process in Vietnam, focusing on the following issues: the current policy-making process is closed; there is still little consultation with subjects directly affected by the policy; there is no good information channel to receive the opinions of these subjects. In addition, the State does not have specific regulations to mobilize the intelligence of the people, experts, and scientists to participate in policymaking, which invisibly limits the way to perceive and solve problems.

Meanwhile, economic and social life are having urgent issues that have not been affected by State policies, thereby creating gaps in management activities. Legal documents are frequently changed; in some areas, many regulations are changing continuously, causing difficulties for beneficiaries and the policy implementation process. Some policies have been issued but for various reasons have not been effective in practice. In addition, many policies still lack rationalities. Phung Thi Phuong Thao (2016) believes that

---

[6] Source: *https://moha.gov.vn/Media_Share/BoNoiVu/Uploads/News.081214/2555/attachs/vi.bai%204.doc*

some of the reasons leading to these shortcomings are: limitations in the organization of the policy-making apparatus; the policy-making capacity of civil servants needs to be improved; lack of participation of citizens and interest groups in the policy-making process; lack of information channels for dialogue between the Government and organizations and individuals.

In that context, applying DT is also a good consideration for public policy-making activities in Vietnam. However, in addition to good practices in Australia (Australian Tax Office - ATO; Australian Centre for Social Innovation - TACSI; Australian Education, Employment and Workplace Relations Agency - H2W; NSW Health Service Reconstruction Program - CSRP), New Zealand, Denmark, the United States, India... that a developing country like Vietnam can learn from, it is also necessary to consider the following points:

- Design thinking is not always feasible and needs to take into account the institutional constraints, policy-making capacity, time, and resource limitations to implement the DT process. It is undeniable that design thinking requires skills that developing countries may find particularly difficult to exploit in public decision-making. One of the questions is that it is not clear who will participate in the DT process. The readiness of stakeholders is also a major issue that needs to be considered;

- If DT becomes part of the policy-making toolkit, it will be necessary to consider also the issues of trust, efficiency, representativeness, etc;

- Each policy does not stand alone, policy designs are not a single, discrete structure but are integrated, sometimes overlapping and complexly interwoven and compatible with other surrounding policy designs;

- It is necessary to consider whether such a model can create new problems in public management and whether integrating DT and implementing human-centered models can bring better results.

Therefore, in the context of a developing country like Vietnam, at present, the scope of support of design thinking in public policy making may be considered to focus on the policy problem defining and policy mechanism designing stages./.

REFERENCES

1. Alford J. (2009). Engaging Public Sector Clients: From Service Delivery to Co-Production. Houndmills, UK: Palgrave Macmillan.

2. B. Guy Peter (2006). Handbook of Public Policy. SAGE Publications. London. 2006.

3.   Bason C. (2016). Design for Policy. Routledge. 270p.

4.   Brown Tim (2009). Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation.

5.   Buchanan Richard (1992). Wicked Problems in Design Thinking. Design Issues 8(2):5 21.

6.   Do Duc Lan, Bui Dieu Quynh, Nguyen Sy Nam, Bui Thi Dien (2021). Design thinking in environmental protection education through STEM activities. Vietnam Journal of Educational Sciences. No. 44, August 2021. 1-6p

7.   Dorst, Kees, and Nigel Cross (2001). Creativity in the Design Process: Co-Evolution of Problem Solution. Design Studies 22(5):425-437.

8.   Fahey, Liam, and William R. King (1977). Environmental Scanning for Corporate Planning. Business Horizons 20(4):61-71.

9.   Fuller, M. and Lochard, A. (2016) Public policy labs in European Union member states, Luxemburg: Publications Office of the European Union.

10. Public policy planning textbook, National Academy of Public Administration, p. 21.

11. Howlett M. (2010). Designing Public Policies: Principles and Instruments. NewYork: Routledge.

12. Kraft, M & Furlong, S (2015). Public policy: politics, analysis, and alternatives, 5th ed, CQ Press.

13. Lewrick M., Link P., Leifer L. (2023). Design Thinking Toolkit (translated by Huynh Huu Tai, Le Ngoc Tuyen). Alpha Book Company. Industry and Trade Publishing House. 2023. 312 pages.

14. Lewrick M., Thommen J.P., Leifer L. (2022). Applying design thinking in life (translated by Huynh Huu Tai, Nguyen Thanh Thao). Alpha Book Company. Industry and Trade Publishing House. 2022. 256 pages.

15. Li Y., Liu H., Li M., Yuan P. (2017). Review on research of design thinking. Journal of Mechanical Engineering, 53(15): 1-20.

16. Liedtka, Jeanne, Andrew King, and Kevin Bennett (2013). Solving Problems with Design Thinking: Ten Stores of What Works. NewYork, NY: Columbia University Press.

17. Lipsky M. (1980). Street-Level Bureaucracy: Dilemmas of the Individual in Public Services. NewYork: Russel Sage Foundation.

18. Lynn L.E., Gould S. G. (1980). Design Public Policy: A Casebook on the Role of Policy Analysis. Santa Monica, CA: Goodyear Publishing Company.

19. Martin Roger (2009). Design of Business: Why Design thinking is the next competitive advantage. Havard Business Press.

20. Mintrom M., Luetjens J. (2016). Design Thinking in Policy Making Processes: Opportunities and Challenges: Mintrom and Luetjens. Australian Journal of Public Administration. 2016

21. Nguyen Anh Phuong. (2020). "Public policy cycle, policy-making process, policy process", <https://chinhsach.vn/chu-trinh-chinh-sach-cong-quy-trinh-hoach-dinh-chinh-sach-qua-trinh-chinh-sach/>.

22. Nguyen Ha Thi Quynh Trang, Nguyen Thu Trang, Cao Dinh Trong (2024). STEAM education - From theory to practice (Volume 1). 244 pages.

23. Osann I., Mayer L., Wiele I. (2020). *Simple and effective design thinking* (translated by Hoang Di). The Gioi Publishing House. 2021. 129 pages.

24. Phung Thi Phuong Thao (2016). Public policy making in Vietnam: Current situation and solutions. <https://tcnn.vn/news/detail/34239/Hoach-dinh-chinh-sach-cong-o-Viet-Nam-thuc-trang-va-giai-phap.html>.

25. Rittel H. W. J, Webber M. M. (1973). "Dilemmas in a General Theory of Planning", *Policy Sciences*, Vol. 4, No. 2 (Jun. 1973), pp. 155-169

26. Rowe Peter G. (1987). *Design Thinking*. MIT Press. Cambridge. 240p.

27. Rowe, Peter. (1998). *Design Thinking*. Cambridge, MA: MITPress.

28. Schneider A.L., Ingram H.M. (1997). *Policy Design for Democracy*. Lawrence KS. University Press of Kansas.

29. Shergold P. (2015). Learning from failures: Why large Government Policy Initiatives Have Gone So Badly Wrong in the past and How the Changes of Success in the Future Can be Improved. Canberra: Australian Public Service Commission.

30. Thomas R. Dye (2016). "Politics, Economics, and the Public: Policy Outcomes in the American States". Administrative Terminology, National Academy of Public Administration, p. 53.

31. Uebernickel, F. and W. Brenner. (2020). Design Thinking: The Handbook, World Scientific.

32. Wannawijit Y. (2021). "Application of Design Thinking in Public Policy Process". <https://so03.tci-thaijo.org/index.php/jssr/article/view/255046/174675>.

33. Whicher A. (2021). Evolution of policy labs and use of design for policy in UK government, Policy Design and Practice, DOI: 10.1080/25741292.2021.1883834 To link to this article: <https://doi.org/10.1080/25741292.2021.1883834>. Published by Informa UK Limited, trading as Taylor & Francis Group. Published online: 18 Mar 2021

34. William N. Dunn (2017). *Public Policy Analysis: An Integrated Approach*. 6th Edition. 498 Pages 102 B/W Illustrations

35. Yang F., Wang L., (2023). "Design Thinking in Public Policy Design: A Typological Study". *Proceedings of the International Conference on Global Politics and Socio-Humanities* DOI: 10.54254/2753-7048/26/20230877

36. Yin B., Li Y., Xiong Y., Li X. (2013). "Current research situation and development tendency of design thinking". *Computer Integrated Manufacturing Systems*, 19(06): p.1165-1176.