

The DICE process

DICE is a four-step communication process that combines design-thinking with communication and user-design principles to better apply creative and critical thinking to the communication process.

The Four Steps of DICE

1. Define the problem.
2. Ideate possible solutions. Design plans.
3. Create content and/or experiences.
4. Evaluate effects.

DICE can be applied to every communication challenge, big or small. The intent is to apply design thinking and user-design principles to communication opportunities to focus on achieving a desired end state.

Define the Problem

The first step of the DICE process is to define the problem. This is accomplished through understanding the assigned mission/task, the commander's intent, the desired end state and defining the problem with a concise problem statement.

Understanding the Mission/Task

Using the framework of the Military Decision-Making Process (MDMP), communicators need to understand their commander's stated mission and specified and implied tasks for the operation, mission or evolution.

The stated mission is what the commander expects to be accomplished. For media and communication professionals, the following are routine stated missions:

1. Inform the crew about the new <add name> policy
2. Pass the upcoming 3M assessments
3. Train the crew to increase ship survivability

Specified tasks. Specified tasks are those specifically assigned by either the commander or higher authority. For media and communication professionals, the following are examples of specified tasks:

1. Write news story
2. Publish daily at-sea newspaper
3. Create video

Implied tasks. Implied tasks are those that must be performed to accomplish a specified task, but are not stated. Implied tasks are derived from an analysis of the mission and specified tasks. Examples of implied tasks for the “Write news story” specified task are:

1. Schedule interview
2. Conduct interview
3. Copy edit story
4. Attain release approval for story

Essential tasks. After analyzing specified and implied tasks, essential tasks are ones *must* be executed to accomplish the mission.

Commander’s Intent

The commander’s intent is a clear, concise statement of what must be done to achieve the desired end state. It provides the link between the mission and the concept of operations by stating the key tasks that, along with the mission, are the basis for subordinates to exercise initiative when unanticipated opportunities arise or when the original concept of operations no longer applies.

If the commander wishes to explain a broader purpose beyond that of the mission statement, he may do so. Intent is normally expressed in four or five sentences and is mandatory for all orders. The mission and the commander’ intent must be understood two echelons down.

Understand what people need

Begin all projects by exploring and pinpointing the needs of the people who will use the service or product and the ways it will fit into their lives. Whether the users are members of the public or part of the Navy family, we must include real people in the design process from the beginning.

The needs of people — not constraints of government structures or silos — should inform technical and design decisions. We need to continually test the products we build with real people to keep us honest about what is important.

Checklist

- Early in the project, spend time with current and prospective users of the service
- Use a range of qualitative and quantitative research methods to determine people’s goals, needs, and behaviors; be thoughtful about the time spent
- Test prototypes of solutions with real people, in the field if possible
- Document the findings about user goals, needs, behaviors, and preferences
- Share findings with the team and agency leadership
- Create a prioritized list of tasks the user is trying to accomplish, also known as “user stories”
- As the digital service is being built, regularly test it with potential users to ensure it meets people’s needs

Key Questions

- Who are your primary users?
- What user needs will this service address?
- Why does the user want or need this service?

- Which people will have the most difficulty with the service?
- Which research methods were used?
- What were the key findings?
- How were the findings documented? Where can future team members access the documentation?
- How often are you testing with real people?

Define the audiences

- Define the target audiences
- Develop personas

(source: <https://playbook.cio.gov/#play1>)

Define the Problem

After gaining an understanding of the unit's current mission/task and the tasks required to achieve it, the next step is to define the problem.

Introduce the problem

This step is a pre-step brainstorming step where the team members state their perceptions of the problem and list the general goals of the group.

Define and analyze the problem

- Problem recognition (clarify the problem and provide evidence)
- Is there a core issue/problem?
- Separate problem from problem indicators
- Seek to understand root causes or potential root problems
- Developing a problem statement
- Exploration of the problem (break it down into smaller, manageable parts)
- Define the assumptions
- Replace assumptions with facts through research
- Consider what specific elements the solution to the problem must achieve or include
- Define the constraints

Write the Problem Statement and Criteria

- Write the problem statement
- Write the criteria the group agrees to follow in reaching a solution
 - Criteria are guidelines to follow
 - They establish standards and goals that have to be in place for an acceptable decision

Ideate Solutions and develop the plan

DICE can be applied to every communication challenge, big or small. The intent is to follow the process to gain a better understanding of the issue or problem to force the team or individual to think from different points of views.

Ideating Solutions is about brainstorming as many different solutions to the problem or issue without applying any constraints.

In the ideation phase, teams brainstorm ALL possible solutions. No solution should be evaluated or dismissed during brainstorming.

According to Thomas Kelley and Jonathan Littman in *“The Art of Innovation: Lessons in Creativity from IDEO, America’s Leading Design Firm,”* there are seven secrets to conduct better brainstorming sessions:

1. **Sharpen the Focus.** Start with a statement of the problem or a specific question.
2. **Playful Rules.** Don’t critique or debate ideas. At IDEO, the company sometimes posts rules like, “Go for Quantity,” “Encourage Wild Ideas,” or “Be Visual.”
3. **Number Your Ideas.**
4. **Build and Jump.** Build on a brainstorming idea for a while and then as momentum slows, jump to another idea or idea chain.
5. **The Space Remembers.** Write the flow of ideas down in a visible medium so the entire group can see.
6. **Stretch Your Mental Muscles.** Group warm-up exercises can help clear the mind and set the right tone for the brainstorming session. Warm-ups can be almost anything from word games the group plays in the beginning of the session to discussions about pre-assigned homework.
7. **Get Physical.** Brainstorming sessions are supposed to be visual. Sketches, mind maps, diagrams, flow charts and stick figures should all be used to help communicate ideas.

Selecting Ideas to develop into plans

After brainstorming, the team must then identify which ideas should be turned into a plan and executed.

Use SMART Objectives to move brainstorming ideas into action. SMART Objectives are:

- **Specific:** Concrete, detailed, and well defined so that you know where you are going and what to expect when you arrive
- **Measurable:** Numbers and quantities provide means of measurement and comparison
- **Achievable:** feasible and easy to put into action
- **Realistic:** Considers constraints such as resources, personnel, cost, and time frame
- **Time-Bound:** A time frame helps to set boundaries around the objective

Create Content and Experiences

The third step of the DICE process is to create the content and/or experience. Content is created using User Experience principles.

User Experience Basics

User experience (UX) focuses on having a deep understanding of users, what they need, what they value, their abilities, and also their limitations. It also takes into account the business goals and objectives of the group managing the project. UX best practices promote improving the quality of the user's interaction with and perceptions of your product and any related services.

Factors that Influence UX

At the core of UX is ensuring that users find value in what you are providing to them. Peter Morville represents this through his [User Experience Honeycomb](#).

He notes that in order for there to be a meaningful and valuable user experience, information must be:

- **Useful:** Your content should be original and fulfill a need
- **Usable:** Site must be easy to use
- **Desirable:** Image, identity, brand, and other design elements are used to evoke emotion and appreciation
- **Findable:** Content needs to be navigable and locatable onsite and offsite
- **Accessible:** Content needs to be accessible to people with disabilities
- **Credible:** Users must trust and believe what you tell them



Best Practices for Creating Meaningful Content

To create meaningful and relevant content, each piece of should:

- Reflect your organization's goals and user's needs. You can discover your user's needs through conducting market research, user research, and analyzing web metrics.
- Understand how user's think and speak about a subject. Content should then be created and structured based on that. Doing this will also help you with search engine optimization (SEO).
- Communicate to people in a way that they understand. Embracing plain writing principles helps with this.
- Be useful. By being purposeful in the content that you include, omit the needless.

- Stay up-to-date and remain factual. When new information becomes available, update your content or archive it.
- Be accessible to all people. You have a responsibility to make sure that all people can access and benefit from your information.
- Be consistent. Following style guides, both for language and design, helps people understand and learn what you are trying to communicate.
- Be able to be found. Make sure that users can find your content both through internally through navigation and also externally through search engines.
- Help define the requirements for the overall site. Content should drive design, structure, etc.

Sources:

<https://www.usability.gov/what-and-why/content-strategy.html>

<https://www.usability.gov/what-and-why/user-experience.html>

Evaluate Effects

The fourth step of the DICE process is to evaluate effects. You should conduct evaluation that is relevant and meaningful for what you are trying to achieve and the methods used.

There are four main evaluation types we are interested in collecting. Not all campaigns, content or experience productions require using the four evaluation types. Use the evaluation type most aligned with your communication plan and objective.

The four evaluation types are: Formative evaluations, Process evaluations, Outcome evaluations and Impact evaluations. Evaluating Impact is the most difficult type to collect, but it is also the most important evaluation type.

Evaluation Type	Purpose	Sample Questions
<i>Formative</i>	Assesses the strengths and weaknesses of campaign materials and strategies, and their (likely) translation into practice before or during campaign implementation.	How does the campaign's target audience think about the issue? What messages work with what audiences? Who are the best messengers? What outcomes are being achieved?
<i>Process</i> (summative)	Examines campaign implementation, measuring effort and the direct outputs - what and how much was accomplished.	How many materials have been put out? What has been the campaign's reach? How many people have been reached?
<i>Outcome</i> (summative)	Measures effects and changes that result from the campaign. Assesses outcomes in the target audiences that come about as a result of campaign strategies and activities.	Has there been any affective change (beliefs, attitudes, social norms)? Has there been any behavior-change? Have any policies changed?
<i>Outcome</i> (customer)	Measures the satisfaction of the campaign customer.	Did the campaign meet your expectations? Was the campaign content or experiences professionally produced?
<i>Impact</i> (summative)	Measures community-level change or longer-term results achieved as a result of the campaign's aggregate effects on individuals' behavior and the sustainability of the behavior. Attempts to determine whether the campaign caused the effects.	Has the behavior-change resulted in its intended outcomes (e.g., lower cancer rates, less violence in schools) Has there been any systems-level change?