

# 6.2.2 Disciplinary Practice (DP)

For guidance on choosing disciplinary practice, refer to [Chapter 2.3 - Disciplinary Practice \(DP\)](#)

The course-level pattern **Engineer/Inventor (Engineering Design + Self-directed Learning)** has provided the the disciplinary practice details for you.



The screenshot displays the 'Disciplinary Practice' section within the 'Engineer/Inventor (Engineering Design + Self-directed Learning)' course. The interface is divided into three main panels:

- Navigation Panel (Left):** Contains a sidebar with menu items: Course Information, Learning Design Triangle, Intended Learning Outcomes, Disciplinary Practice (highlighted), Pedagogical Approach, Details of Learning Design, Curriculum Components, Course Overview, Designer Dashboard, iLAP Section Arrangement, and LD to iLAP Converter.
- Disciplinary Practice Details (Center):**
  - Name:** Engineering Design
  - Description:** The disciplinary practice of 'Engineering Design' supports our young learners to apply their knowledge and skills in developing effective solutions to real-world problems. Like engineers and inventors, learners will engage in identifying problems, then ideate, design, create, and optimize solutions to address those challenges.
  - Role of Learner:** Engineer, Inventor
  - Workflow steps:**
    1. Identify the problem
    2. Generate ideas for solutions
    3. Design the solution
    4. Construct a prototype
    5. Test the prototype's performance and optimize the product
- Information Window (Right):**
  - Intended Learning Outcomes Disciplinary Skills:**
    - Apply design thinking process - Empathize with users
    - Apply design thinking process - Define design problems
    - Apply design thinking process - Ideate innovative solutions
    - Apply design thinking process - Build prototype
    - Apply design thinking process - Test solution
    - Apply design thinking process - Optimize solution
  - Generic Skills:**
    - Apply self-directed learning strategies (Goal setting) in the learning process

At the bottom of the interface, there are two buttons: 'MANAGE INTENDED LEARNING OUTCOMES' and 'MANAGE PEDAGOGICAL APPROACH'. A red box highlights the '+ ADD' button in the top right corner of the Disciplinary Practice details panel.

Figure 6.19 Learning Design Triangle Section - Disciplinary Practice


## 1. Editing or Creating a DP

- By clicking the  or  button, you can access the DP builder to modify the DP information.

**Name \*** : Engineering Design

**Description :** The disciplinary practice of 'Engineering Design' supports our young learners to apply their knowledge and skills in developing effective solutions to real-world problems. Like engineers and inventors, learners will engage in identifying problems, then ideate, design, create, and optimize solutions to address those challenges.

**Role of Learner:** Engineer, Inventor

**Workflow steps :** 

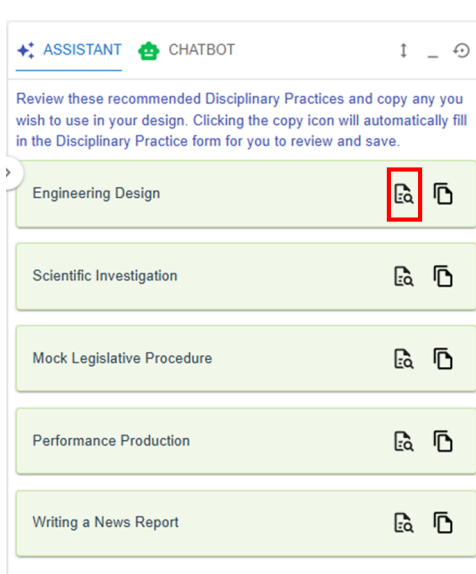





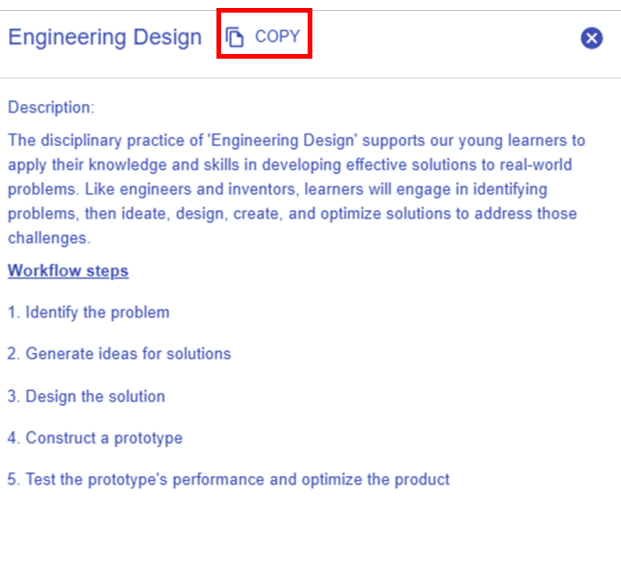

1. Identify the problem ✕
2. Generate ideas for solutions ✕
3. Design the solution ✕
4. Construct a prototype ✕
5. Test the prototype's performance and optimize the product ✕



SAVE
CANCEL

Figure 6.20: Editing/Creating a DP

## 2. Learning Design Facilitator

- In the Learning Design Facilitator, there are DP Patterns that we have designed for you to copy and use in your own design.

 <p>ASSISTANT CHATBOT</p> <p>Review these recommended Disciplinary Practices and copy any you wish to use in your design. Clicking the copy icon will automatically fill in the Disciplinary Practice form for you to review and save.</p> <ul style="list-style-type: none"> <li>Engineering Design </li> <li>Scientific Investigation </li> <li>Mock Legislative Procedure </li> <li>Performance Production </li> <li>Writing a News Report </li> </ul>	 <p>Engineering Design </p> <p><b>Description:</b> The disciplinary practice of 'Engineering Design' supports our young learners to apply their knowledge and skills in developing effective solutions to real-world problems. Like engineers and inventors, learners will engage in identifying problems, then ideate, design, create, and optimize solutions to address those challenges.</p> <p><b>Workflow steps</b></p> <ol style="list-style-type: none"> <li>1. Identify the problem</li> <li>2. Generate ideas for solutions</li> <li>3. Design the solution</li> <li>4. Construct a prototype</li> <li>5. Test the prototype's performance and optimize the product</li> </ol>
<p>Figure 6.21: The DP Patterns in the Learning Design Facilitator</p>	<p>Figure 6.22: Details of the Targeted DP Pattern</p>

- By clicking the  button, you can explore the details of the targeted DP pattern.
- You can use the targeted DP pattern directly by clicking "**COPY**" button in the pop-up window, or by clicking the  button in the Learning Design Facilitator. The DP pattern details will be automatically appear in the LDS.

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