



**MARATHA VIDYA PRASARAK SAMAJ'S**  
**Karmaveer Adv. Baburao Ganpatrao Thakare**  
**College of Engineering, Nashik**

Permanently Affiliated to Savitribai Phule Pune University Vide Letter No. : CA/1542 & Approved by AICTE New Delhi - Vide Letter No. : 740-89-32 (E) ET/98 AISHE Code - C-41622



## **Mechanical Engineering Department**

### **Innovative Teaching Method - Report**

Academic Year – 2023-24	Class: BE
Semester – I	Date : 26/10/2023
CO: CO3, CO4, CO5	PO: PO1, PO12

**1. Title of Innovation method/activity:** Cross word puzzle

**2. Name of Faculty:** Mr. N. V. Lokare

**3. Course:** Product Design And Development

#### **4. Objective of Method**

- Create the awareness of Product Design and Development Process
- Understand the importance of PDD process in Industry

#### **5. Topic Covered through Activity**

All Basic Term in Product Design And Development

#### **6. Description of method with Benefits (8 – 10 lines)**

## **Description of method**

The crossword puzzle is a kind of word game which can help students to extend their vocabulary knowledge. It helps students to memorize terminology, definitions, spelling, and pairing key concepts. A square or a rectangular grid of squares is formed in the crossword puzzle. Crossword puzzle is beneficial as self-correcting method due to the length of each word and the overlap of each answer with other answers.

## **Benefits of method**

### **1. Enhances Retention & Recall**

- Helps students remember key concepts, terminology, and principles of product design.
- Reinforces learning in an engaging and interactive way.

### **2. Encourages Active Learning**

- Promotes participation and involvement rather than passive learning.
- Students actively engage with product development terms and definitions.

### **3. Improves Problem-Solving Skills**

- Encourages students to think critically and make connections between concepts.
- Develops analytical skills needed for real-world product development.

### **4. Boosts Vocabulary & Technical Knowledge**

- Strengthens understanding of industry-specific terms (e.g., prototyping, ergonomics, CAD, iteration).
- Helps students learn and apply correct terminology.

### **5. Increases Motivation & Engagement**

- Adds an element of fun and competition, making learning enjoyable.
- Encourages teamwork when done in groups.

### **6. Reinforces Key Concepts**

- Can be used as a recap tool to review topics such as:
  - Design thinking process
  - Materials selection
  - Manufacturing methods
  - Market research & user needs

## 7. Roles and Responsibilities

- **Teacher**

- Develop awareness among the students about concept of PDD in Industry
- Develop awareness among the students about key term of PDD
- Remain available during the completion of task.
- Prepare assessment methodology.

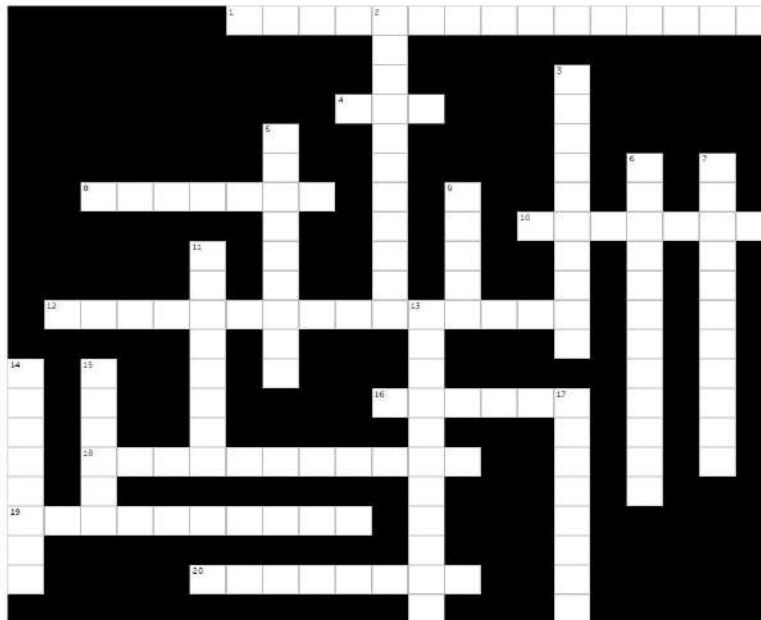
- **Student**

- Go through all the material provided on PDD.
- Need to understand details provided in ‘across’ and ‘down’ and identify the relevance.
- Completion of crossword table using required input given in the class.

## 8. Assessment Tools

Crossword table and related input (shown in Table 1) are provided to the students for the assessment.

**Table 1: Crossword Puzzle table and related details**



**Across**

- 1 Its help in establishing the interchangeability of the product
- 4 First phase of S-Curve Product performance is
- 8 Widely accepted and currently popular style in specific or given field of art is called
- 10 The process of evaluation the attributes or performance of the product or measuring its characteristics is ....
- 12 In which of the type of product the manufacturing cost may go up
- 16 Which is not a part of product design
- 18 \_\_\_\_\_ is the first phase of product design
- 19 Tools for gathering customer needs
- 20 The goods which are purchased by the customer only after comparing their quality, price and other thing are called

**Down**

- 2 Segmentation is based on age, sex, education, occupation, annual income status of a family
- 3 \_\_\_\_\_ is the last phase of product design
- 5 Catalogues, sponsored events, and digital media presence are closely associated with the marketing mix activity of?
- 6 The marketer focuses on product awareness, trial, and expansion in this stage of the product life cycle?
- 7 The product that are sold through wide spread distribution network are classified as
- 9 A new product development process consists of details steps and no of steps are
- 11 The market offering that is essentially intangible is called
- 13 The agency provide marketing services such as assistant different companies in preparing , planning , implementing and evaluating advertising program is call
- 14 The simplicity to operate and easy to understand of the product is concerned with the its aspect
- 15 Which are main organization objective that should be consider while preparing the plan
- 17 customers visit the store regularly

**9. Evaluation sheet of attendee**

Sr. No.	Roll No.	Name of students	Score out of 20
1	80	Saliq Maniyar	20
2	74	Aditya Kuyate	20
3	72	Abhishek Kumar	20
4	47	Rutuja Gojare	13
5	48	Vishal Gupta	13
6	51	Aniket Hire	18
7	52	Sushant Hode	18
8	59	Yogita Jungare	17
9	70	Kshirsagar Umesh	20
10	71	Kulthe Prathamesh	20
11	11	Augom Chaudhary	20

12	132	Vedant Pingale	20
13	131	Ishwar Vaidya	20
14	125	Renuka Sonawane	20
15	123	Durgesh Sonawane	20
16	126	Yog Sonawane	20
17	76	Rohit Mahajan	20
18	01	Chinmay Adhe	16
19	02	Rohan Adke	20
20	14	Aditya Bagul	20
21	31	Nashiket Deore	20
22	37	Dikshant Patil	18
23	41	Akash Gadhave	19
24	45	Bhushan Ghuge	15

#### 10. Impact Analysis

Sr. No.	3- High/Excellent	2 - Moderate /Average	1- Slight/Poor
1. Did you understand and cover the objective of the activity?	88.9%	11.1%	--
2. Do you find that methodology is helpful in pairing the key concepts of topic?	85.2%	14.8%	--
3. Does this method helps to stimulate your thinking capacity?	85.2%	14.8%	--

**11. Activity Picture**  
**Answer Key**



**12. For review and critique contact: e-mail address of faculty and HOD**

[lokare.nitin@kbtcoe.org](mailto:lokare.nitin@kbtcoe.org), [hod.mech@kbtcoe.org](mailto:hod.mech@kbtcoe.org)

Mr. N. V. Lokare  
Subject In charge

HoD

Mr. M. S. Patil  
Subject In charge

Coordinator