

## INNOVATIONS IN TEACHING AND LEARNING

**Subject:** Computer Network

**Class:** L.Y. BTech E&TC

**Topic:** TCP to DNS: Crossword Voyage

### **NAME OF THE ACTIVITY: Crossword**

**I. Concept:**

An interactive crossword puzzle based on Computer Networks was created to engage students with key concepts in a fun way. 50 important words from the syllabus, including protocols like TCP and UDP, devices like routers and switches, security concepts like firewalls and encryption, and OSI layers, were selected. The activity was designed to combine learning with a playful challenge to strengthen understanding.

**II. Objective (Goal):**

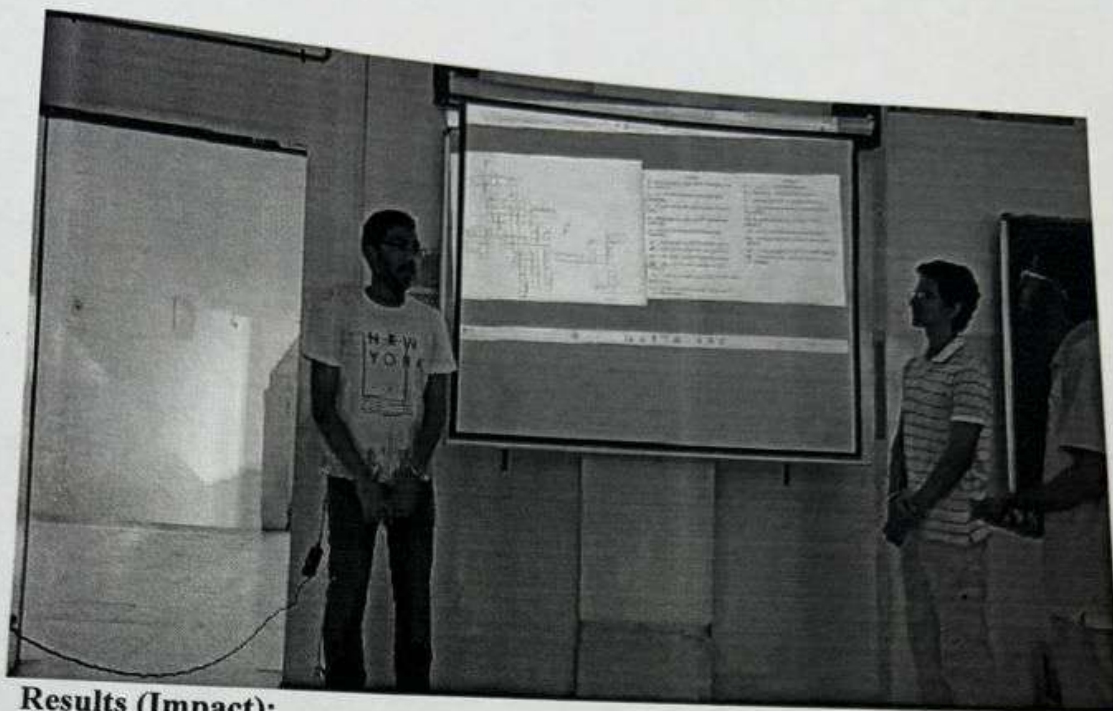
The main goal of the activity was to reinforce understanding of network terminology and improve recall of protocols, layers, and security concepts. By solving and explaining the crossword, confidence in applying networking concepts in practical or exam scenarios was expected to be gained.

**III. Appropriateness (Relevance of Selected Method):**

A crossword was chosen because it is an effective tool for active learning. By thinking about clues and recalling terms, key concepts could be memorized more effectively. Connections between definitions and real-world networking scenarios, such as TCP reliability or firewall packet filtering, were reinforced. The method was found to be highly relevant to the syllabus and learning objectives.

**IV. Effective Presentation (Implementation Details):**

The crossword was created using CrosswordLabs, and hints were prepared for each word. The activity was carried out individually first, followed by discussion of answers. A time limit of 20–30 minutes was applied to make the activity challenging..



V. **Results (Impact):**

Through the activity, key network terms were **retained more effectively**, and understanding of their practical significance was improved. Problem-solving and recall skills were enhanced, and confidence in discussing networking concepts was strengthened. The interactive approach made learning **engaging and memorable**.

VI. **Reproducibility and Reusability by Other Scholars for Further Development**

Sr.No	Innovation Used by	Details of User	Purpose of Reproducibility and Reusability
01	A.A. Tatugete	RSCOE	- we can go for more complex problems for this activity



## VII. PEER REVIEW AND CRITIQUE

**Category:** Internal/External/Interdepartmental

**Score: (1:Least 2: Moderate 3:Highly)**

**Question 1.** Is this Innovative Teaching and Learning Methodology useful during content delivery?

**Question 2.** Did this innovation increase student motivation or participation?

**Question 3.** Will it show improvement in student learning?

**Question 4.** Suggestions for improvement in future iterations.

Category	Name of Peer	Organization	Q.1	Q.2	Q.3	Q. 4 Suggestion/Critique
Internal	Mr. A.A. Tatugade	RSCOE	2	2	2	2 Need to Improve Q set

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