SRI VASAVI
INSTITUTE OF ENGINEERING & TECHNOLOGY
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An ISO 9001:2015 Certified Institute
Department of Computer Science & Engineering

Innovative Teaching Practice: Self Learning

Faculty Name	SVC GUPTA
Course Name	Cryptography and Network Security
Academic Year	2022-23
Class	IV-I SEM
Topic	System Security : Users, Trusted Systems

Objective of the Activity: In the innovative teaching and learning process, self-learning empowers students to take ownership of their learning journey, identifying their needs, setting goals, and actively seeking resources, fostering autonomy and deeper understanding. This model encourages students to explore the relationship between studying and real-world applications like work, citizenship, and personal growth.

Pre-Class Preparation:

Self- learning is a method that puts learners in control of their educational journey, allowing them to take the lead in how they acquire knowledge. In this approach, learners define their own objectives, choose the resources they'll use, and decide on the methods that work best for them. They actively pursue new skills or knowledge and later reflect on their progress.

When a tutor or instructor is involved, their role is more of a facilitator than a traditional teacher. They might help outline a learning goal, but the responsibility for navigating the path lies with the student. The tutor steps in mainly to offer guidance or support if the learner encounters challenges. This type of learning often happens naturally in daily life but can be purposefully integrated into various educational settings, such as schools, universities, and even corporate environments.

In-Class Activity:

Part 1: Research & Reflect (15–20 mins)

Students will individually (or in pairs) explore the following:

1. What is a **Trusted Computing Base (TCB)**?
2. How do **trusted systems enforce access control**?
3. Common **authentication methods** for users (passwords, biometrics, tokens, MFA).
4. Real-world examples of **trusted systems** (e.g., SELinux, TPM, BitLocker).

Part 2: Scenario-Based Analysis (20 mins)

Tasks:

- Define at least 3 user roles and their permissions.
- Identify potential threats and how the system will defend against them.

- Propose how trusted computing principles can be applied (e.g., auditing, secure boot, mandatory access control).

Time Allotted for Activity:

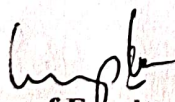- Pre-class preparation:50Minutes
- In-Class Activity:30 Minutes

Images / Screenshot of the practice

Activity on Quiz	

Benefits of Self Learning practice:

These learners enhance their abilities in:

- Researching

- Making informed decisions

- Solving problems independently

- Staying organised

- Motivating themselves

- Building resilience

- Managing their time effectively

Signature of Faculty Member

HOD