

Theoretical perspectives of teaching Information Security in tertiary education

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Overview of the presentation

- **Introduction**
- **Theoretical perspectives and teaching style**
- **Application of theory to ISEC curriculum**
- **Conclusion**

Introduction

Importance of Information Security Course (ISEC) in tertiary level

- Fast growth of Information Technology (IT) in all the sectors
- Information Security is applicable many disciplines, including technical, business and management.

Introduction (contd...)

Importance of

- effective delivery of the ISEC course
- teacher's teaching style
- adoption of suitable teaching/learning models
- best suited approach to enhance the quality of the teaching

Theoretical perspectives and teaching style

According to Ramsden (2003) major teaching styles are

1. teaching as telling or transmission
2. teaching as organizing student activity
3. teaching as making learning possible

i) Teaching as telling or transmission

- the teacher's role is to transmit knowledge to students
- students are passive and the teacher is active.
- surface approach -superficial engagement with content (Ramsden, 2003)
- 'teacher-centered classrooms' (Garsha 1996)

Drawbacks, particularly in relation to teaching ISEC

- responsibility for learning is completely on the student's shoulders;
- the teacher does not carry any responsibility for involving students in the learning process,
- all students are treated as being at the same learning level, implying that they have an equal ability to grasp the knowledge
- a friendly teacher-student environment, is absent

ii) Teaching as organising student activity

- teaching is seen as a supervision process
- techniques designed to ensure that students learn
- leads to innovative higher education
- more learner-centered and less teacher-directed
- teaching is about taking part in the development of student learning (Ramsden 2003)

Teaching as organizing student activity (contd...)

- 'the facilitator/personal model for the classroom
- activities for social interactions and problem-solving situations
- facilitated to show initiation and accept responsibility (Garsha 1996)

Drawbacks, particularly in relation to teaching ISEC

- still leaves scope for improvement
- students need to understand the ISEC course content thoroughly with the subject matter
- teacher's role should be much more than merely acting as or someone who designates tasks.

iii) Teaching as making learning possible

- teaching is comprehended as a process of working cooperatively with learners to help them change their understanding
- teaching involves finding out about students' misunderstandings, intervening to change
- creating a context of learning (Ramsden 2003)

Teaching as making learning possible

(contd...)

- teacher as delegator/facilitator/expert
- students will have adequate knowledge and possess independent, collaborative and participant learning styles,
- teacher's role is to 'empower' students
Garsha (1996)
- free interchange between the teacher and the student
Westcott (2003)

Application of theory to ISEC curriculum

■ Curriculum development

The ISEC Curriculum should contain a variety of material and different task sequences to meet individual differences between learners

The ISEC curriculum would develop students' skills in these areas, aided by study tools and with links to real-world objects, events and situations.

Application of theory to ISEC curriculum (contd..)

- Curriculum promoting in-depth learning

In the ISEC curriculum 'concepts and strategies need to be identified, organized, prioritized and taught in-depth' to promote in-depth learning

Application of theory to ISEC curriculum (contd..)

- **Curriculum as a holistic teaching/learning process**

ISEC curriculum would be taught as a holistic process, rather than fragmenting the process

It would be developed to promote a sense of efficacy and confidence in students

Application of theory to ISEC curriculum (contd..)

- The ISEC curriculum would also be designed to allow for students' differing academic discipline backgrounds.
- ISEC curriculum's endeavors to provide students with a holistic learning process,

Conclusion

- Teachers' teaching styles and their commitment to curriculum development play important roles in helping students learn
- Teacher's personality and different roles played by the teacher in transmitting knowledge also influence the student's learning.

Conclusion (contd..)

- Each teacher's teaching style may differ based on his/her past experiences, knowledge and skills gained over a period of time.
- It is a hard task to name an overall best theory or method of teaching
- The theory of teaching that aims to 'make learning possible' is a useful model

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