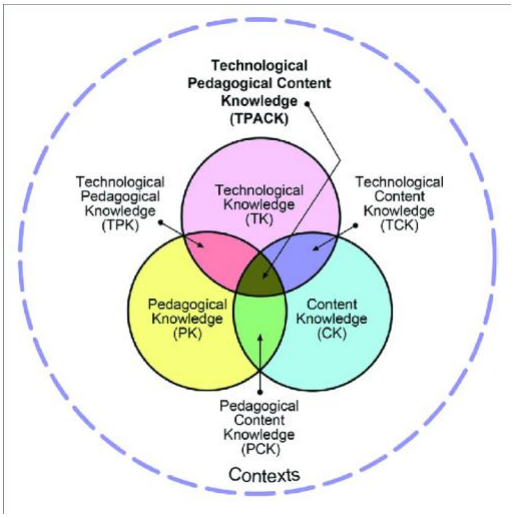
EDUC 261 STUDY NOTES

Week 1: Technology Integration as an Educational Imperative

Key drivers of technology Integration

1. ***Motivating and engaging learners***
   - Several studies indicate that using technology can increase motivation and engagement. *However, we need to adopt a critical approach to using technology in education. For instance:*
     - *Mo*ving beyond the myth of 'digital natives'
     - Avoiding 'technological determinism'
2. ***Access to learning***
   - Resources etc
3. ***Improve learning outcomes***
   - Personalized learning pathways
   - Collaborative learning
   - Data collection and representation
   - Active learning
   - Authentic assessment
   - Catering to special needs
   - Communication outside the classroom
   - Simulations and gamification
   - Intelligent feedback
   - Peer support networks
4. ***Digital learning skills***
5. ***Curriculum and policy documents***
   - ACARA includes 'Information and Communication technology capability' as one of the seven general capabilities

TPACK Model (Technology Pedagogy and Content) and its Implications



TPACK issues

- Research indicates that design tasks are an excellent way to develop TPACK capabilities
- Instruments have been developed to measure TPACK, however, there are concerns regarding;
  - Whether the components of the model can be clearly distinguished
  - Whether self reporting is an accurate way to measure TPACK
  - Whether quantitative measures are adequately explanatory
- Limitations of the TPACK model include;
  - It provides no guidance on how to effectively design learning tasks
  - It is general and so is not tailored for particular disciplines or contexts
  - It measures knowledge and not practise

Note:

- TPACK is a useful conceptual framework for considering the interconnected dimensions of technology, pedagogy and content that are needed for designing technology-enhanced learning activities
- We should adopt a critical perspective of TPACK in practice, using it judiciously and understanding its limitations

Week 2: Pedagogies of Technology Enhanced Learning

Pedagogy can operate at different levels

1. Perspectives (theories/paradigms): "I adopt a constructivist pedagogy in all of my classes"
2. Approaches: "I used problem-based learning tasks for students to understand the laws of motion"
3. Strategies: "I deconstructed the process into steps so students can understand how to complete it"

Pedagogical perspectives

1. Behaviourism
   - Learning is a chance in overt behaviour
   - Changes in behaviour are the result of an individual's response to events that occur in the environment
   - *Implication:* practise should take the form of question (stimulus) - answer (response) - with associated feedback to expose students to the subject in gradual steps
2. Cognitivism
   - Focuses on what happens in the mind, for instance, stages of cognition required for learning; capturing attention, selection, retrieval, comprehension, synthesis, memorising, abstraction
   - *Implication:* learning should be designed to account for the stages of cognition
3. Constructivism