Mapping Innovative Learning with Immersive VR/AR Technologies

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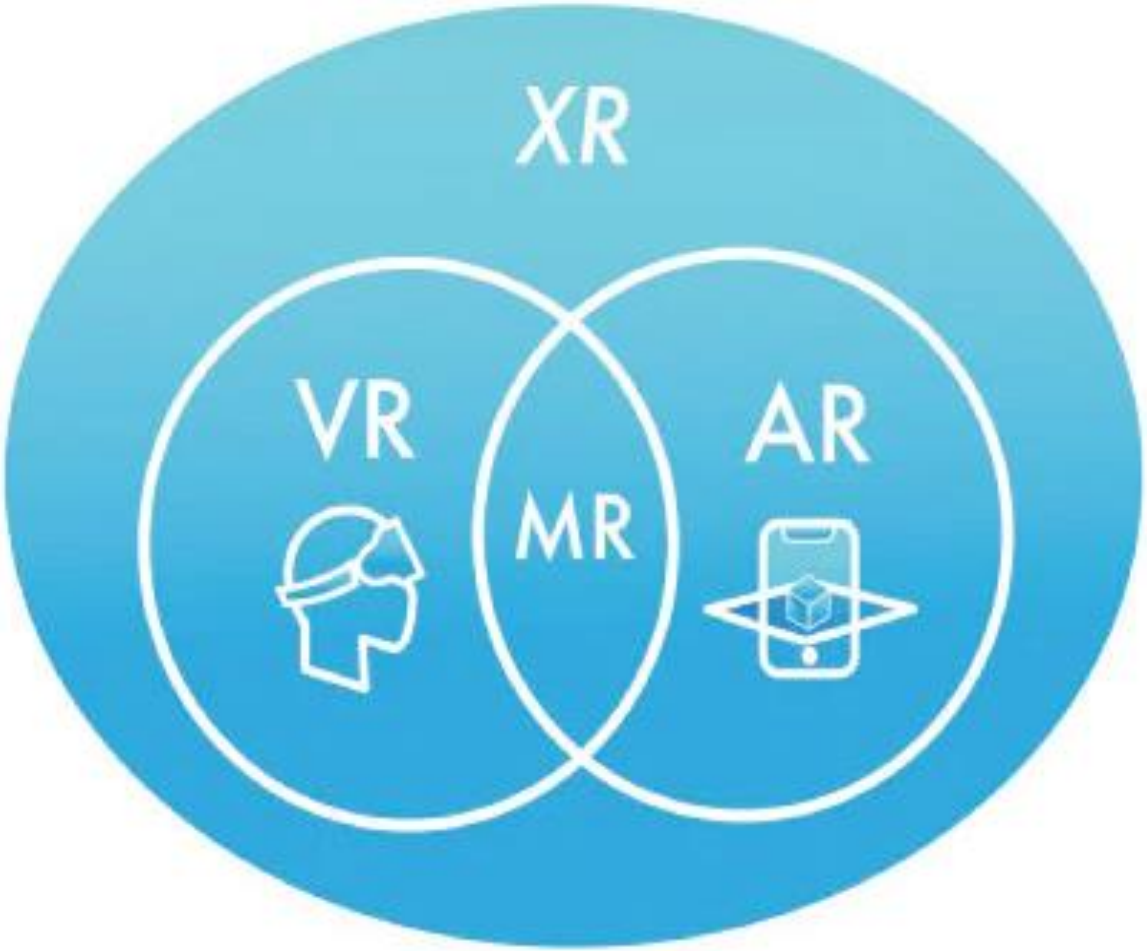
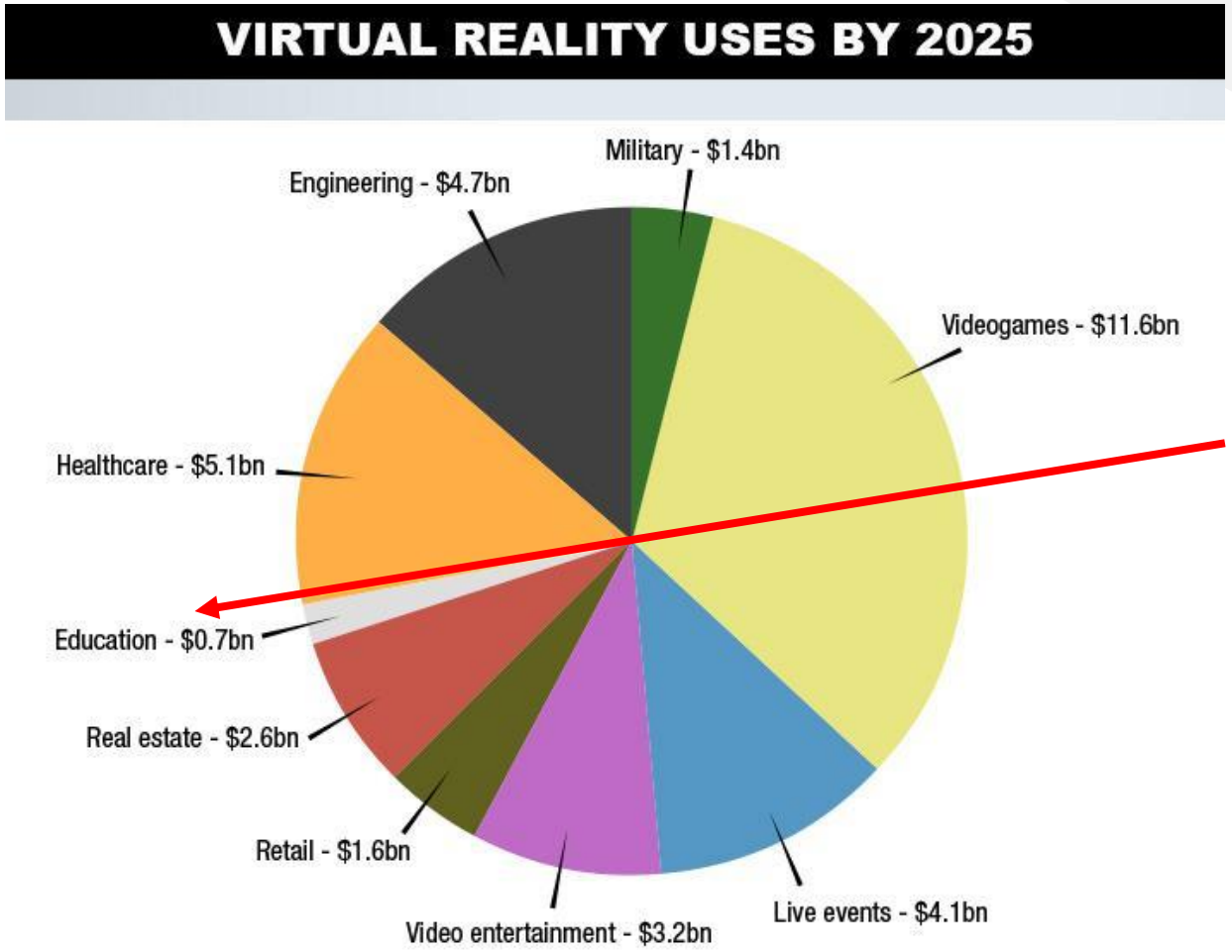
Difference Between VR/AR/MR



VR Being Used in Education



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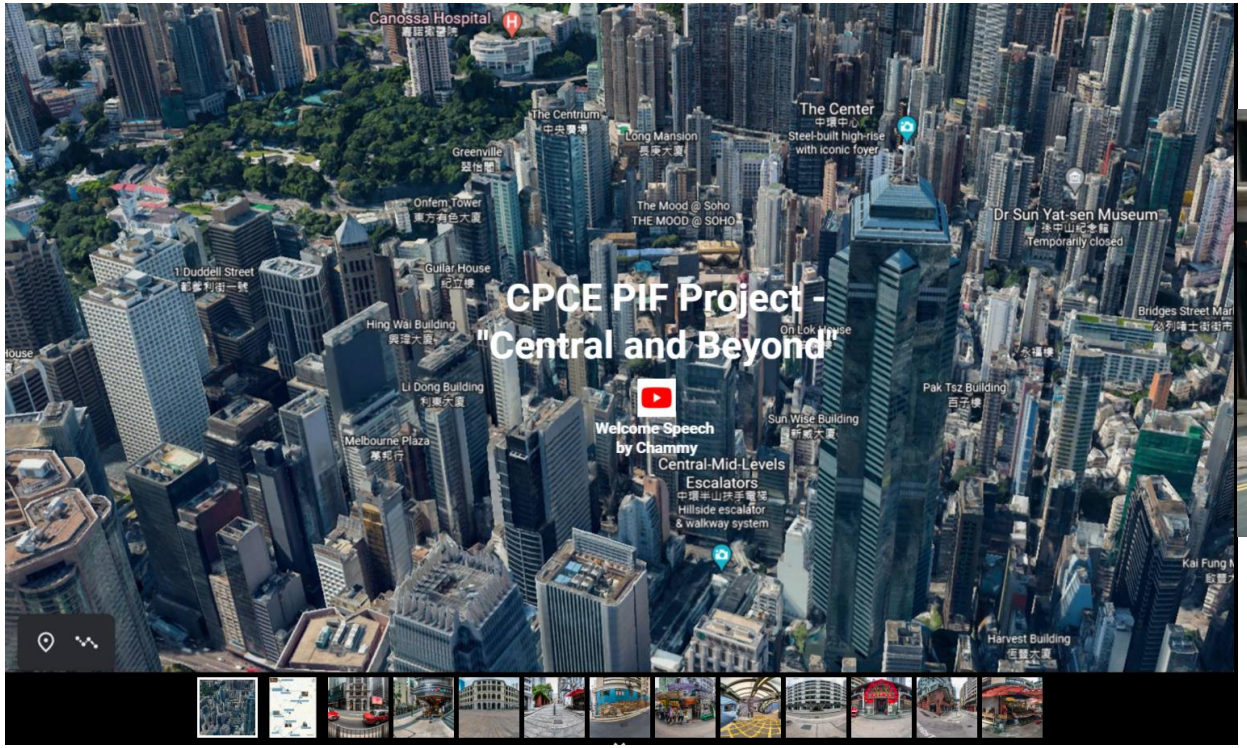
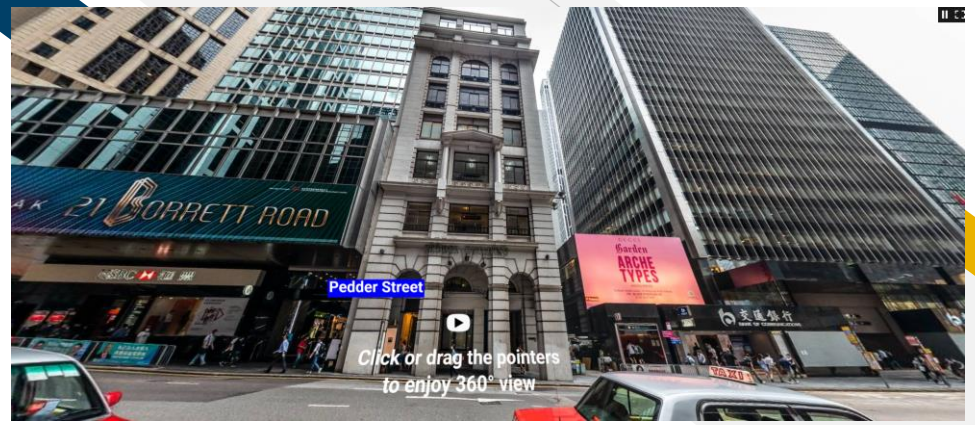
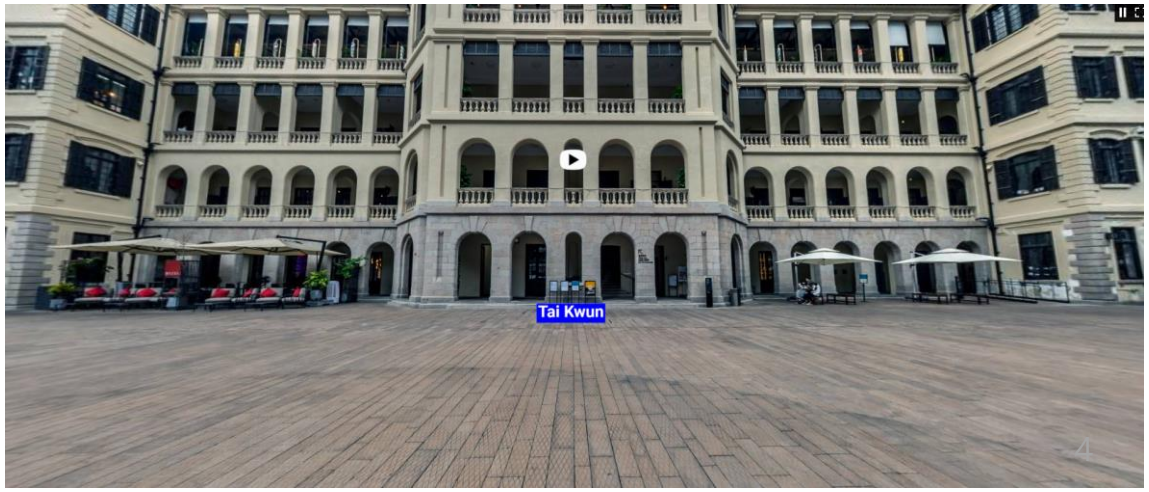
CPCE Example







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CPCE VR Cave


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Utilization of VR in Education

How interactive and immersive?

Benefits of VR Education

- VR applications for education:
  - Visualize and interact with objects you can't see in reality.
  - Muti-angle on observing
  - Real-time interactive
  - Unlimited thinking
  - Investigate risky circumstances
  - Sustainable learning
  - Fun and cheer

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How Immersive?

Immersive Education - Teaching with VR

IE University immersive experiences: using VR in class

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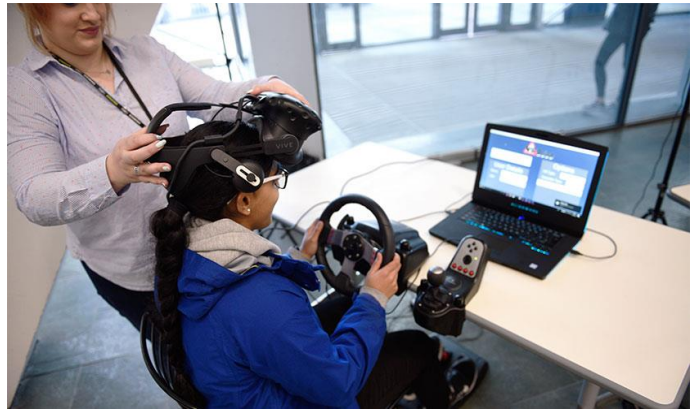
How Interactive?



How to Implement the VR Education?

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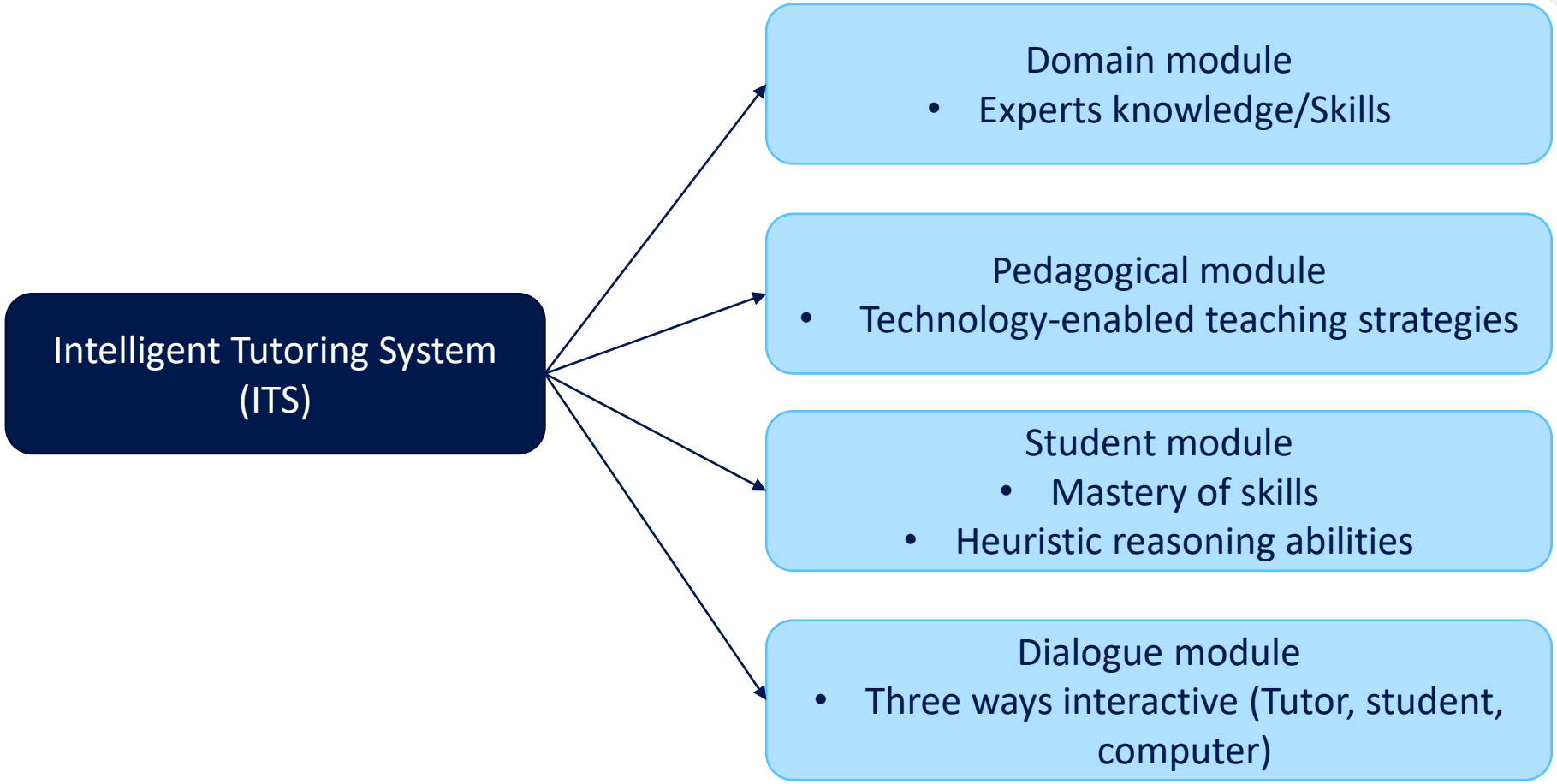
Intelligent Tutoring Systems (ITS)



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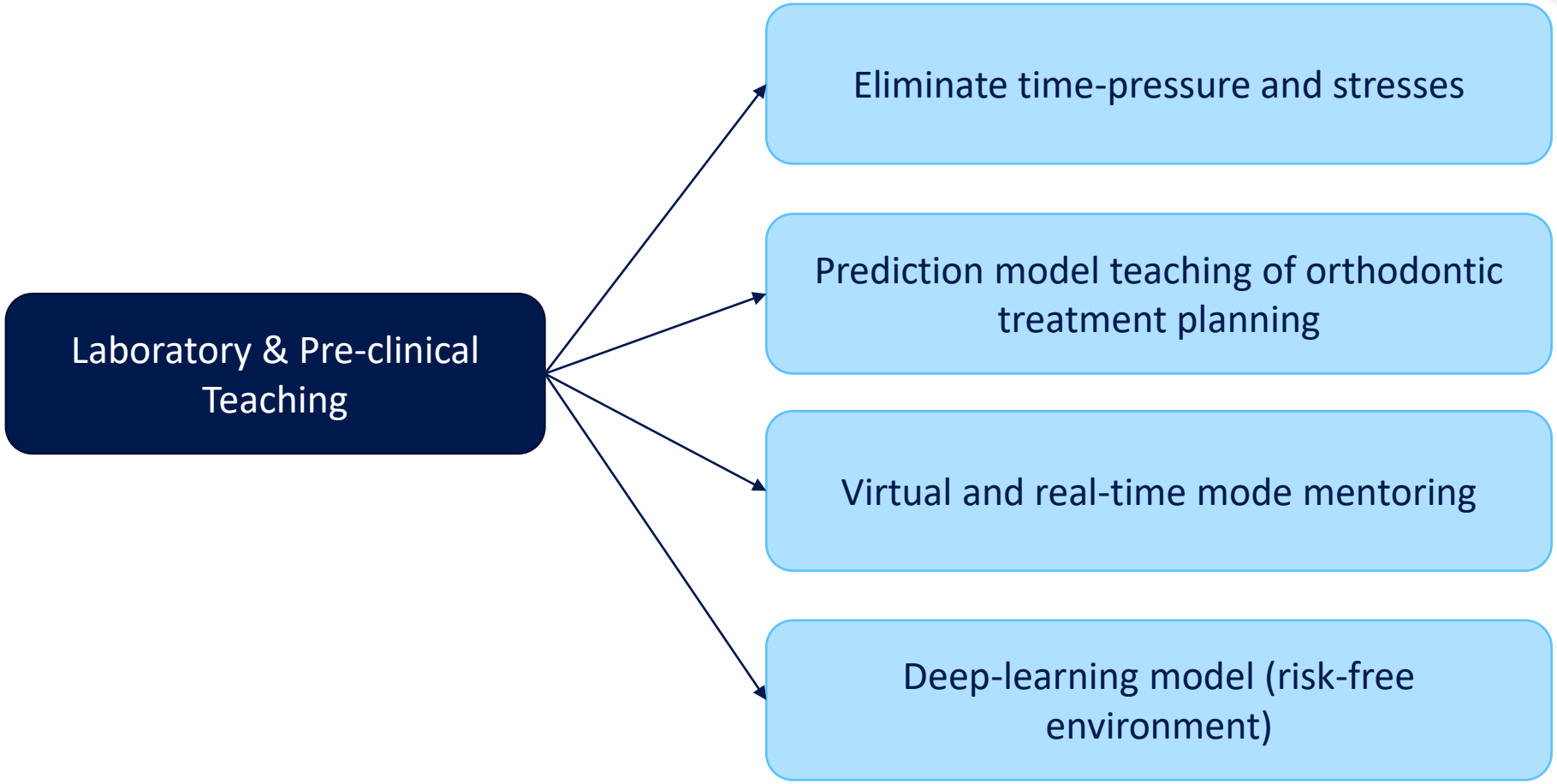
Laboratory & Pre-clinical Teaching



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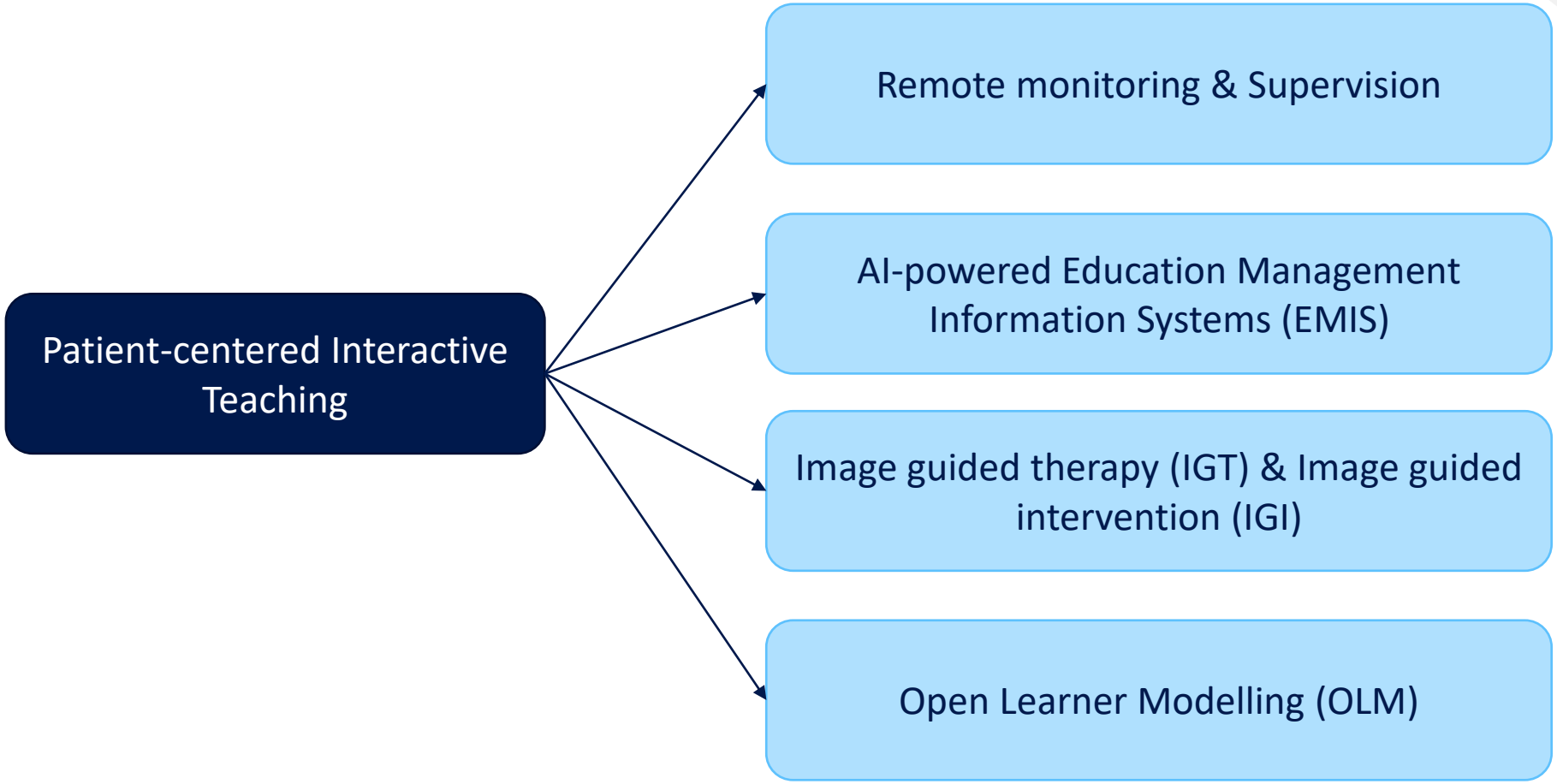
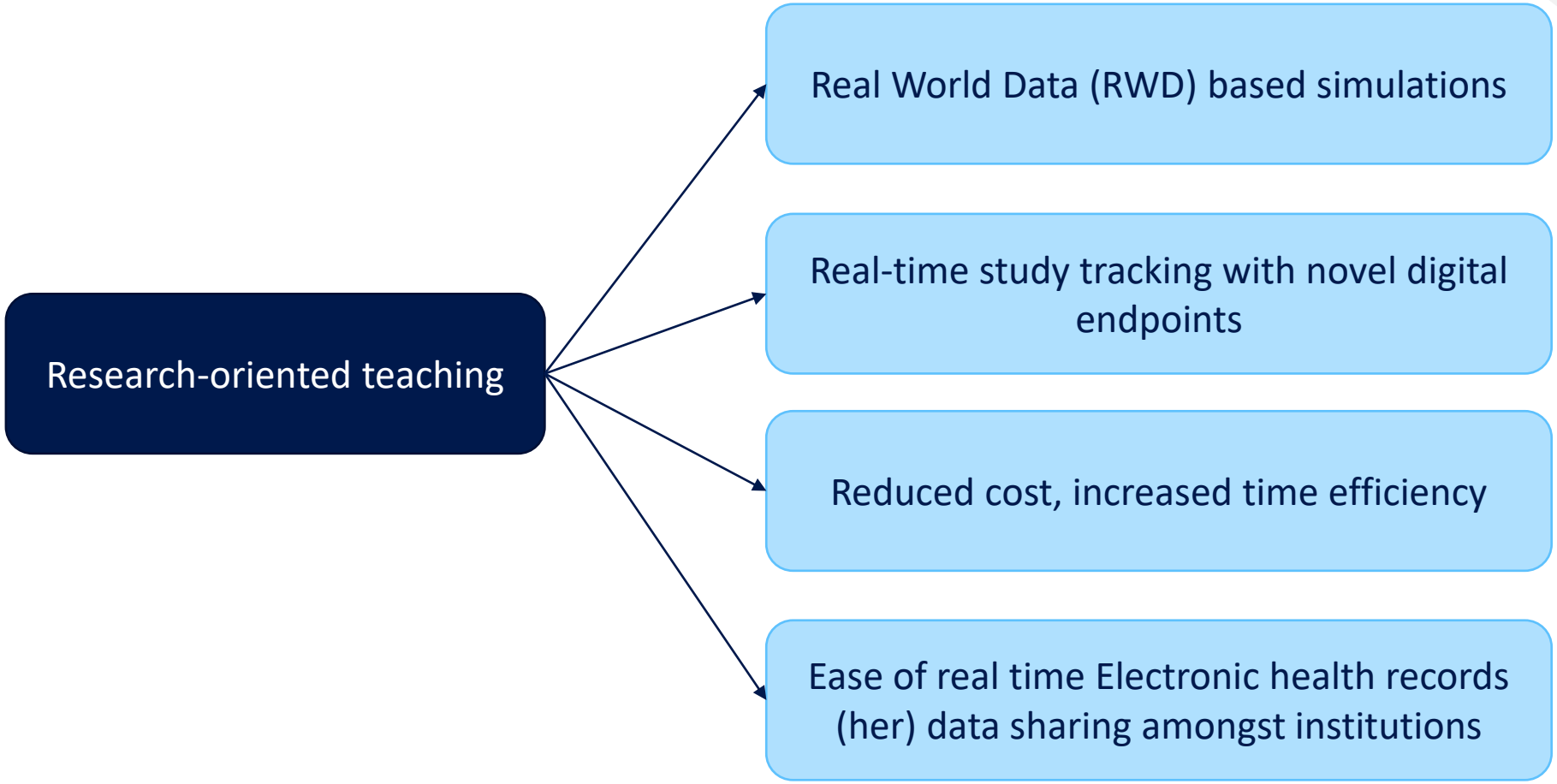
Patient-centered Interactive Teaching



Research-oriented teaching



How to Implement the VR Education?

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Intelligent Tutoring System (ITS)	Laboratory & Pre-clinical Teaching	Patient-centered Interactive Teaching	Research-oriented teaching
Domain module • Experts knowledge/Skills	Eliminate time-pressure and stresses	Remote monitoring & Supervision	Real World Data (RWD) based simulations
Pedagogical module • Technology-enabled teaching strategies	Prediction model teaching of orthodontic treatment planning	AI-powered Education Management Information Systems (EMIS)	Real-time study tracking with novel digital endpoints
Student module • Mastery of skills • Heuristic reasoning abilities	Virtual and real-time mode mentoring	Image guided therapy (IGT) & Image guided intervention (IGI)	Reduced cost, increased time efficiency
Dialogue module • Three ways interactive (Tutor, student, computer)	Deep-learning model (risk-free environment)	Open Learner Modelling (OLM)	Ease of real time Electronic health records (her) data sharing amongst institutions


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Thank you!