

EduVenture VR Workshop

Eric Luk

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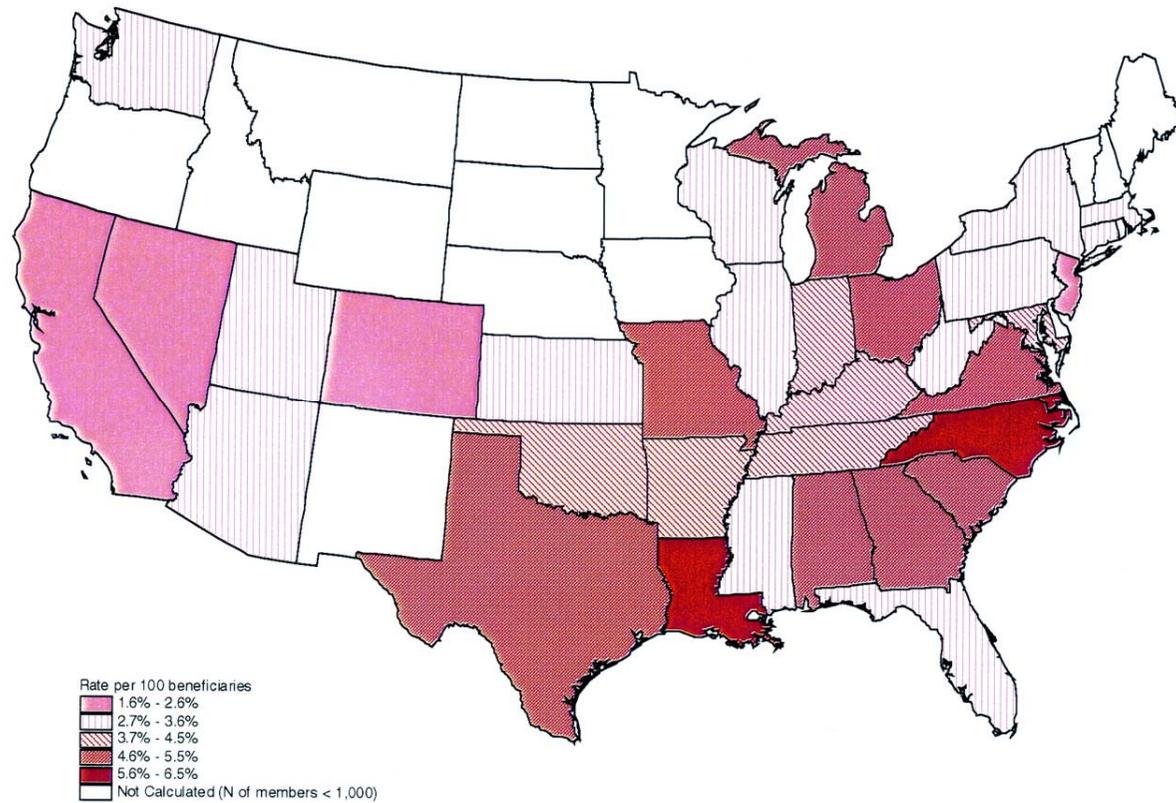
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Key Takeaways

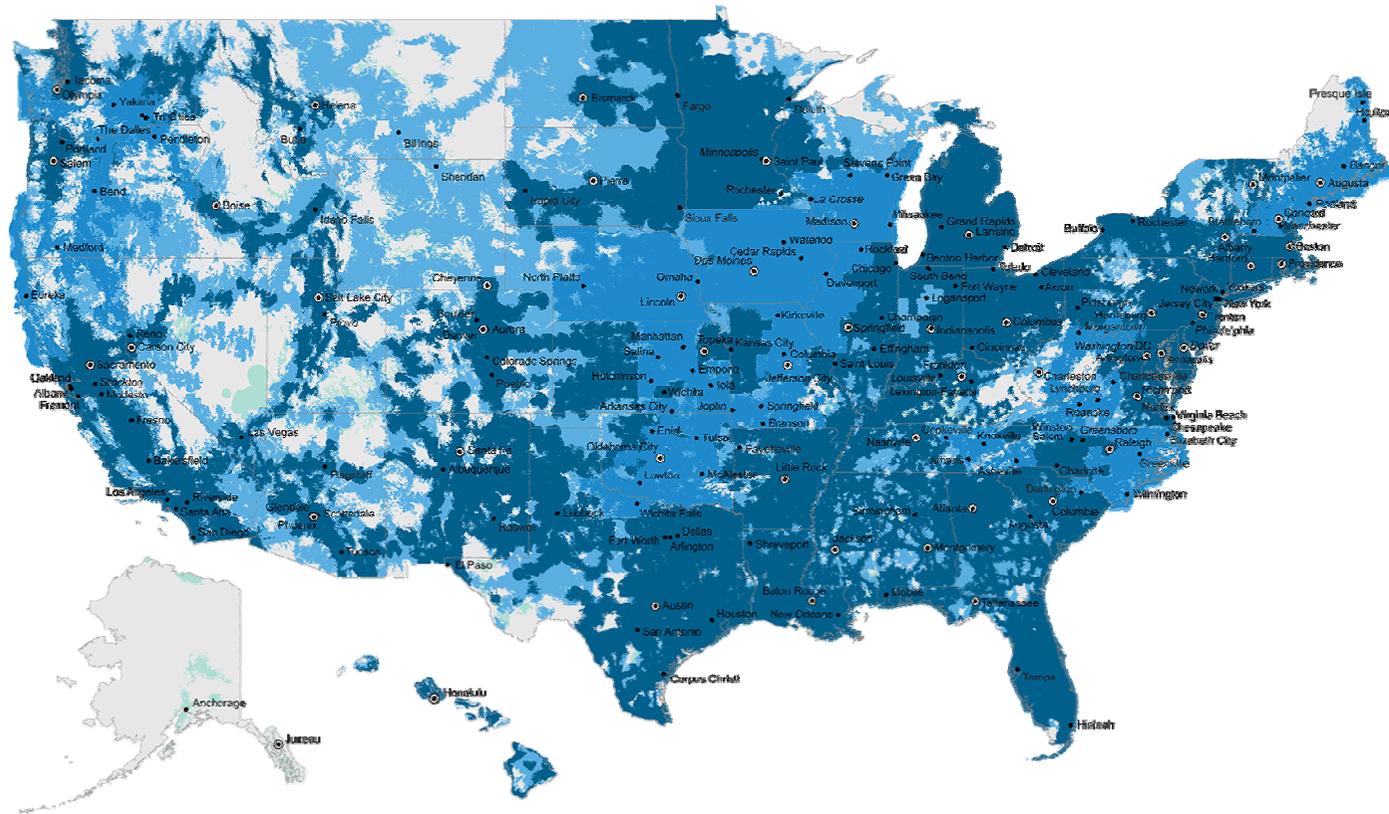
- Have fun
- Some details about VR
- What is EduVenture VR
- 0.1% Implementation
- Feel passionate about teaching... again





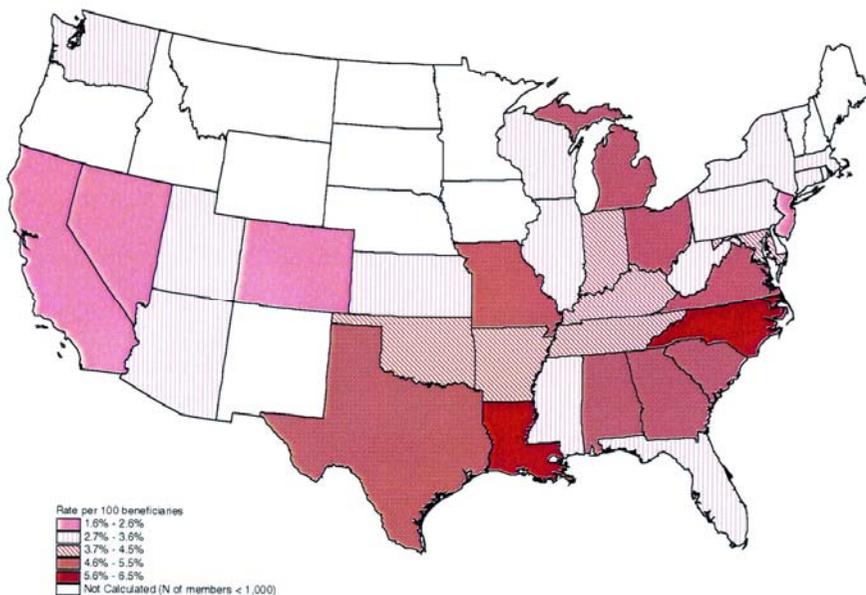
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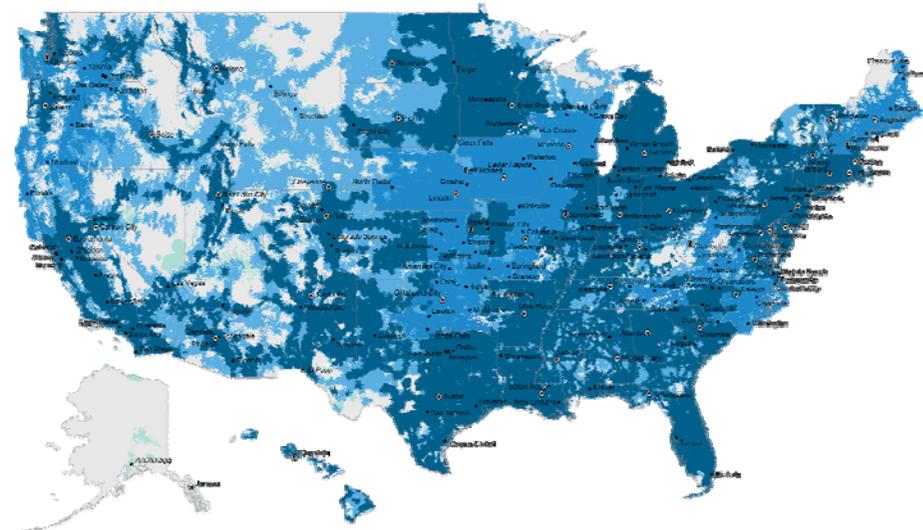


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Source: ADHD drug prescription
Ken Robinson on reforming education

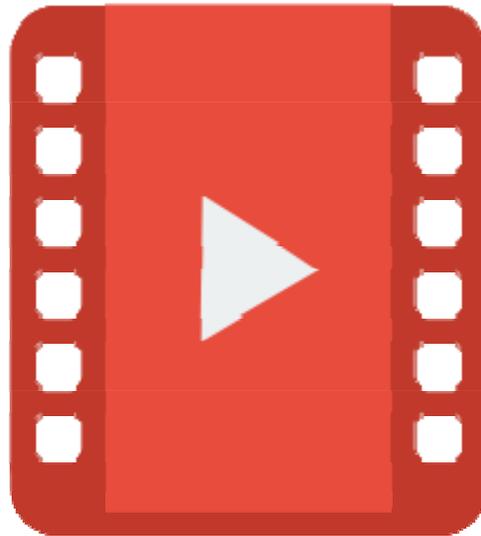


Source: Voice and Data Map in US
<https://www.uscellular.com/coverage-map/voice-and-data-maps.html>

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What is VR



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A Real VR Gaming Story



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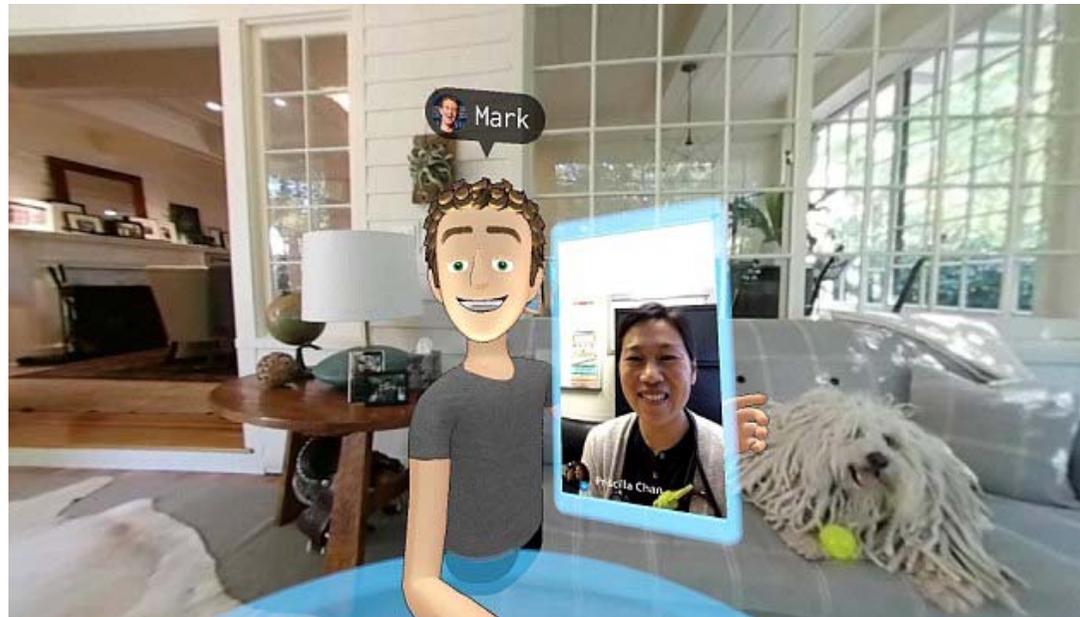
Who think VR game is easier?



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The Mark Zuckerberg Facebook VR Demo



Try Search “facebook vr” in Google

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What VR is telling us

- It's changing our real-reality
- A new medium
- More creativity needed
- The 3-Minutes-Problem
- Content is way more important than technology



To VR or not to VR

- Is the journey impossible?
- Is the cost unaffordable?
- Is there any meaningful learning experience because of VR?
- Can student explore and self learn?



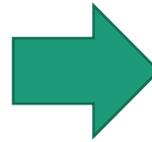
Why EduVenture VR

- Explore and investigate
- Interaction (Question Types)
- Assessment
- School-based Teaching Material



How VR Works

Raw: Ricoh Theta S
LG 360

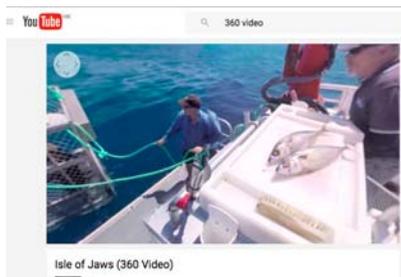


2D Transformed:



Software Output

App Input



360 Player
or App

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Google Cardboard

Taobao Headset

Google Daydream View

Samsung Gear VR

HTC Vive

HK\$10

HK\$50-200

HK\$690

HK\$510

HK\$6,750

For all phones
Glasses: Merely

For all phones
Glasses: OK

Androids
Glasses: OK

New Samsung Phones
Glasses: OK

For PC only
Glasses: Merely OK

- Cheap
- Light
- Acceptable FOV
- Poor build quality
- Limited life span
- Discomfort
- Poor light isolation
- Nausea

- Focal length and pupillary distance customizable
- Low FOV in some models
- Limited light isolation
- Heavy
- Hair Style Tangle

- Good light isolation
- Good FOV
- High cost
- Only works on Androids

- Perfect light isolation
- Good FOV
- High cost
- Only works on particular Samsung phones
- "hacking" needed for 3rd party apps

- Perfect light isolation
- Good FOV
- Highly Immersive
- Extreme High cost
- Extra space needed for installation
- Hard to setup and maintain





LG 360

Cheap

Low image quality



Ricoh Theta S / SC

Comprehensive user experience

Build-in memory



Samsung 360

Comprehensive user experience

Androids only



Nikon KeyMission 360

Good image quality
4K Video

Buggy App and image merge
(Might have improved)



Pilot Schools

中學:



仁濟醫院
羅陳楚思
中學



嘉諾撒
聖心書院



梁文燕
紀念中學
(沙田)



裘錦秋中學
(元朗)



聖公會
諸聖中學



閩僑中學



靈糧堂
怡文中學



聖公會
白約翰
會督中學



中華基金
中學



保良局
羅傑承
(一九八三)
中學



天主教
新民書院



明愛粉嶺
陳震夏中學



東莞學校



聖母院書院



伊利沙伯
中學舊生會



保良局
胡忠中學



炮台山
循道衛理
中學



香港四邑
商工總會
陳南昌
紀念中學



香港
紅卍字會
大埔卍慈
中學

小學:



孔教學院
大成小學



東莞
工商總會
張煌偉小學



仁濟醫院
蔡衍濤小學



博愛醫院
歷屆總理
聯誼會
梁省德學校



樂善堂
梁鍊瑤學校
分校



油麻地
天主教小學

特殊學校:



慈恩學校



禮賢會
恩慈學校



道慈佛社
楊日霖
紀念學校



匡智翠林
農商學校



Teaching Materials Created by Sec. School Teachers



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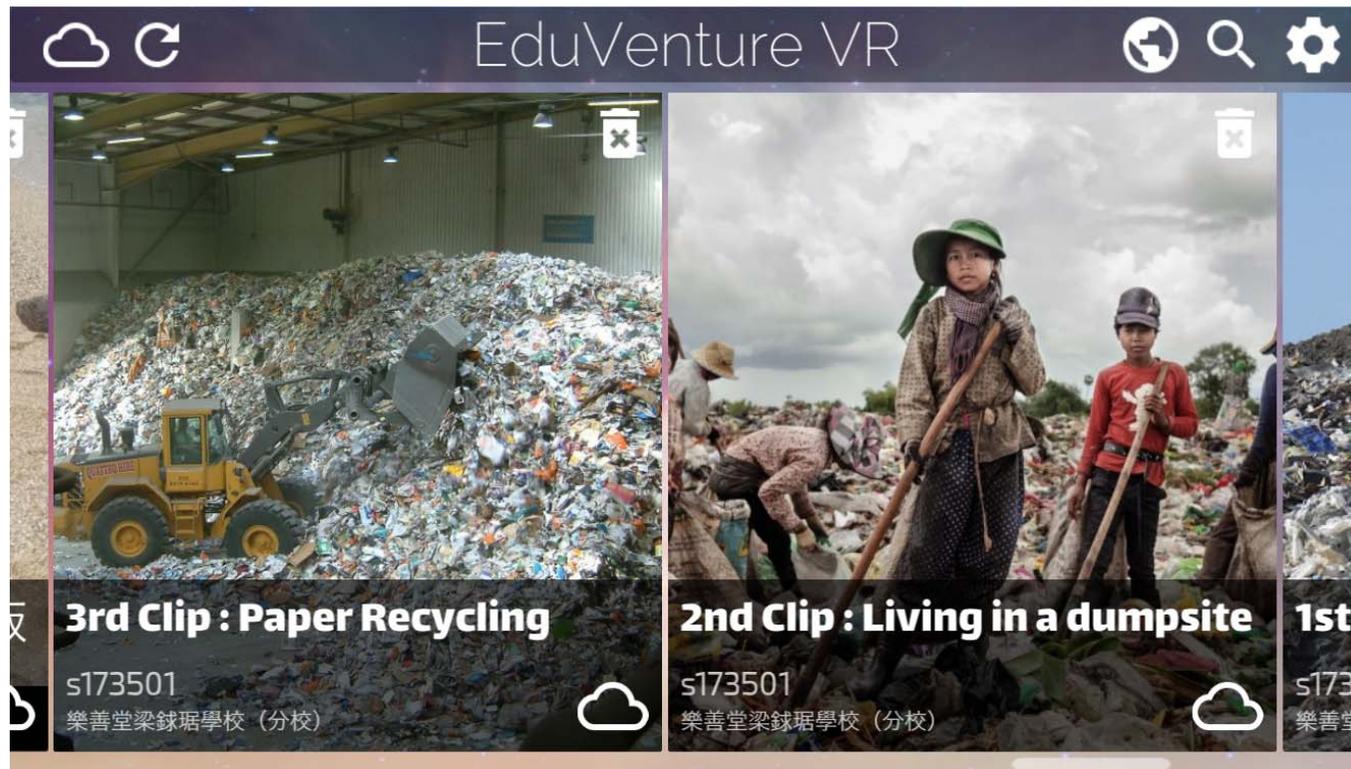
Teaching Materials Created by Sec. School Teachers



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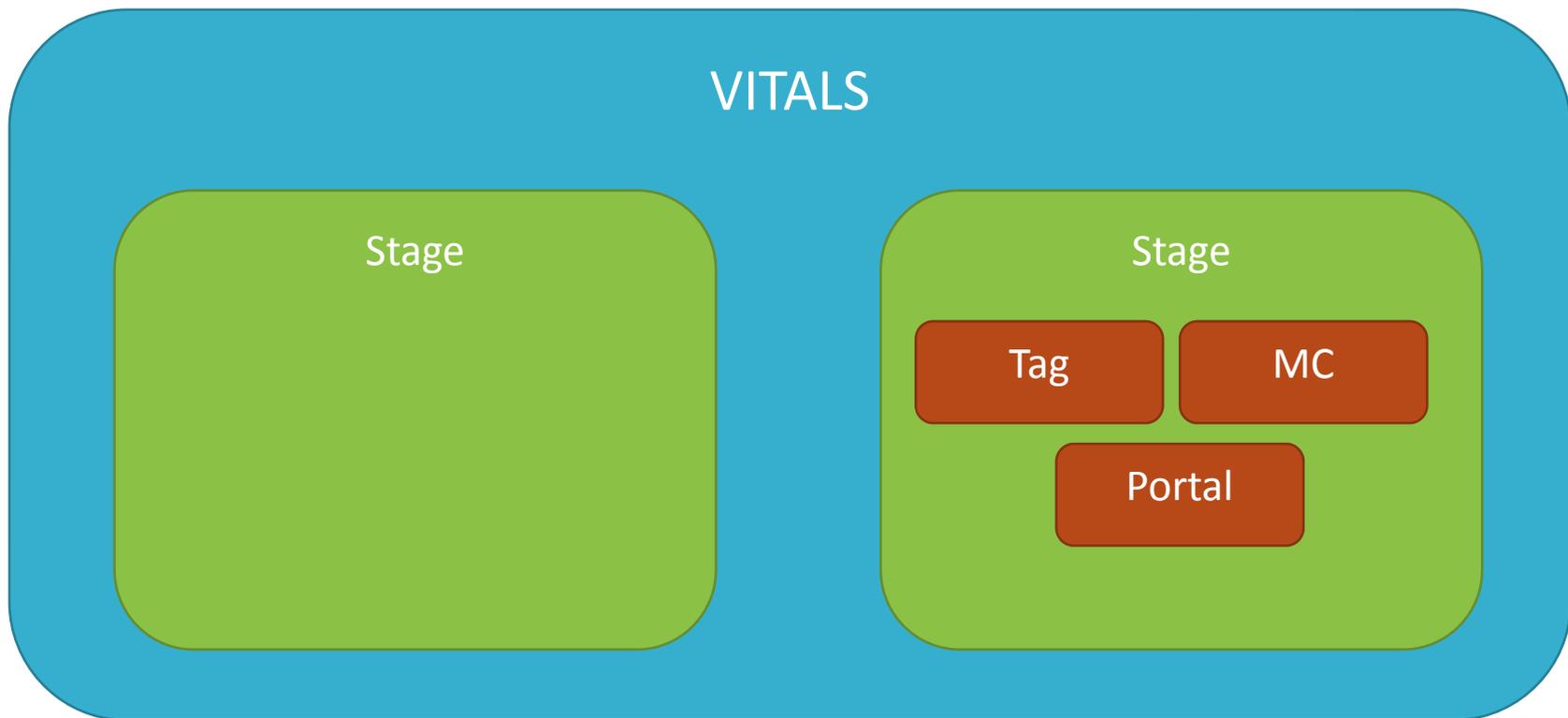


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VITALS

Virtual Interactive Teleporting Active Learning Space



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Stage (A Standing Point)

- 360 Movie Clip
- Static 360 Photo

Examples:

- Street corner
- Museum Entrance
- 聚星樓



Element (Questions)

Ready:

- Tag (買菜牌)
- MC
- Large Photo
- Voice Tag
- Portal

In progress:

- Voice Q&A



What a VITALS can be?

- Linear Tour
- Branching Tour
- Voice over photos
- Drama
- Role Play Game

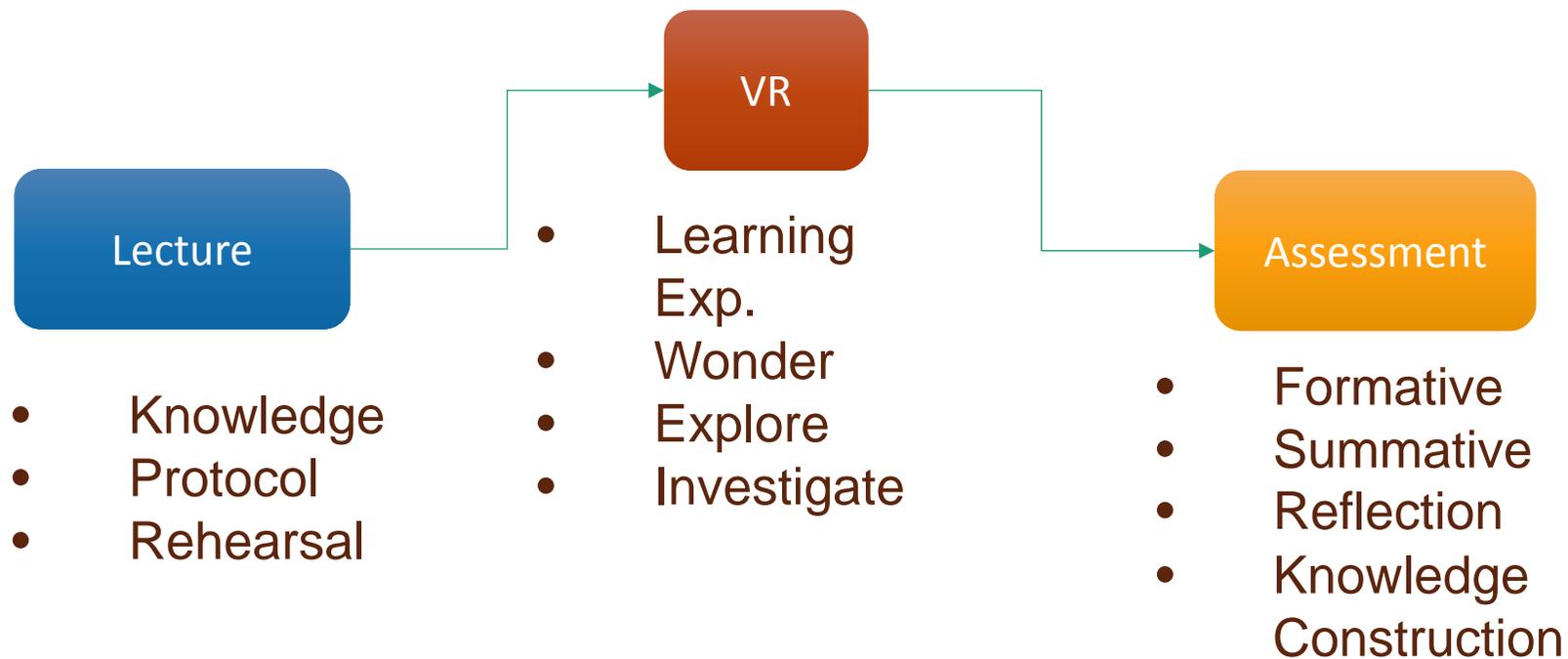


VR Lesson Implementation Questions to ask

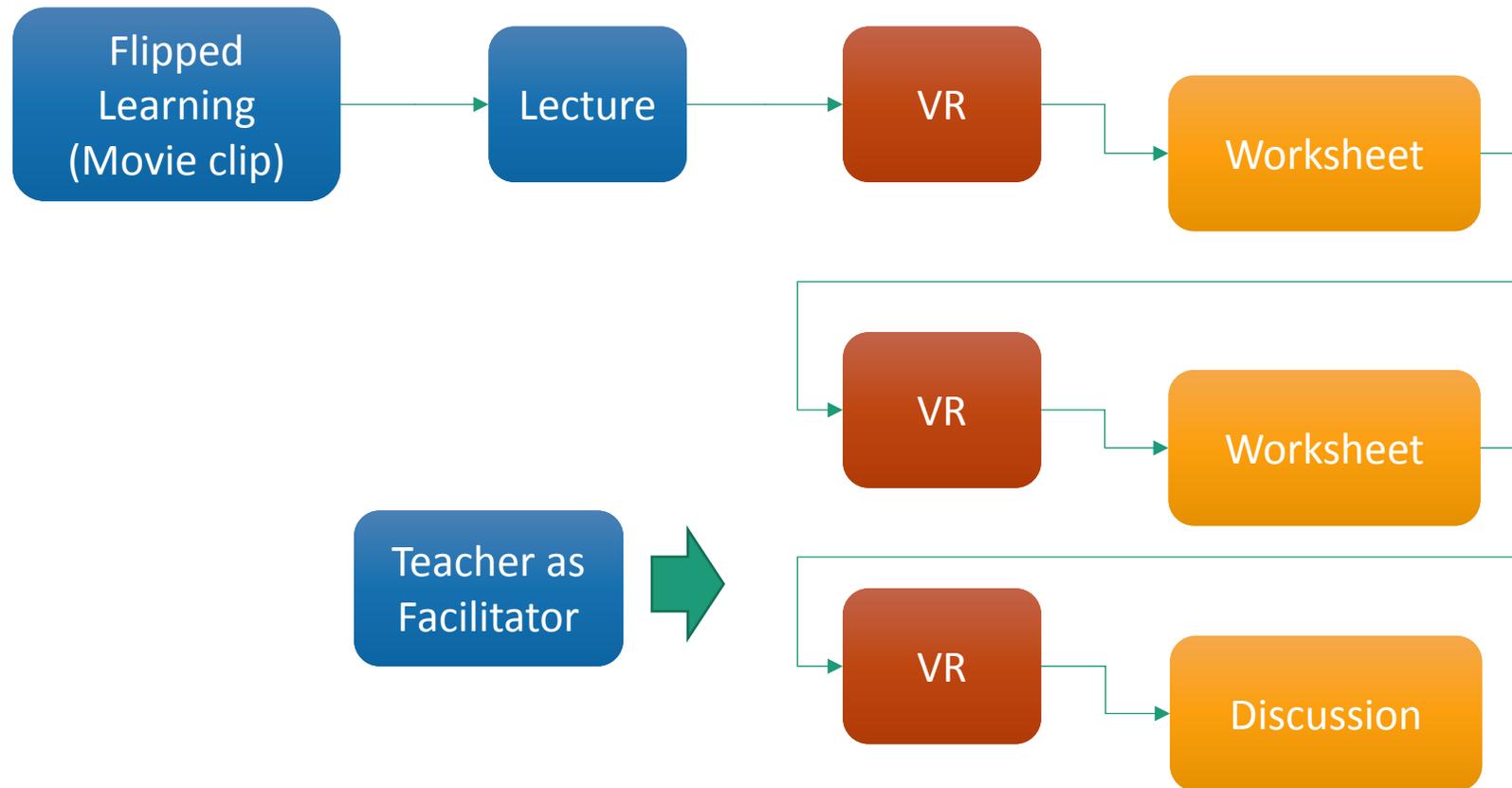
- Is all the mobile devices ready?
- To stream or not to stream?
- Are students skills-ready?
- Are students knowledge-ready?
- Are students protocol-ready?



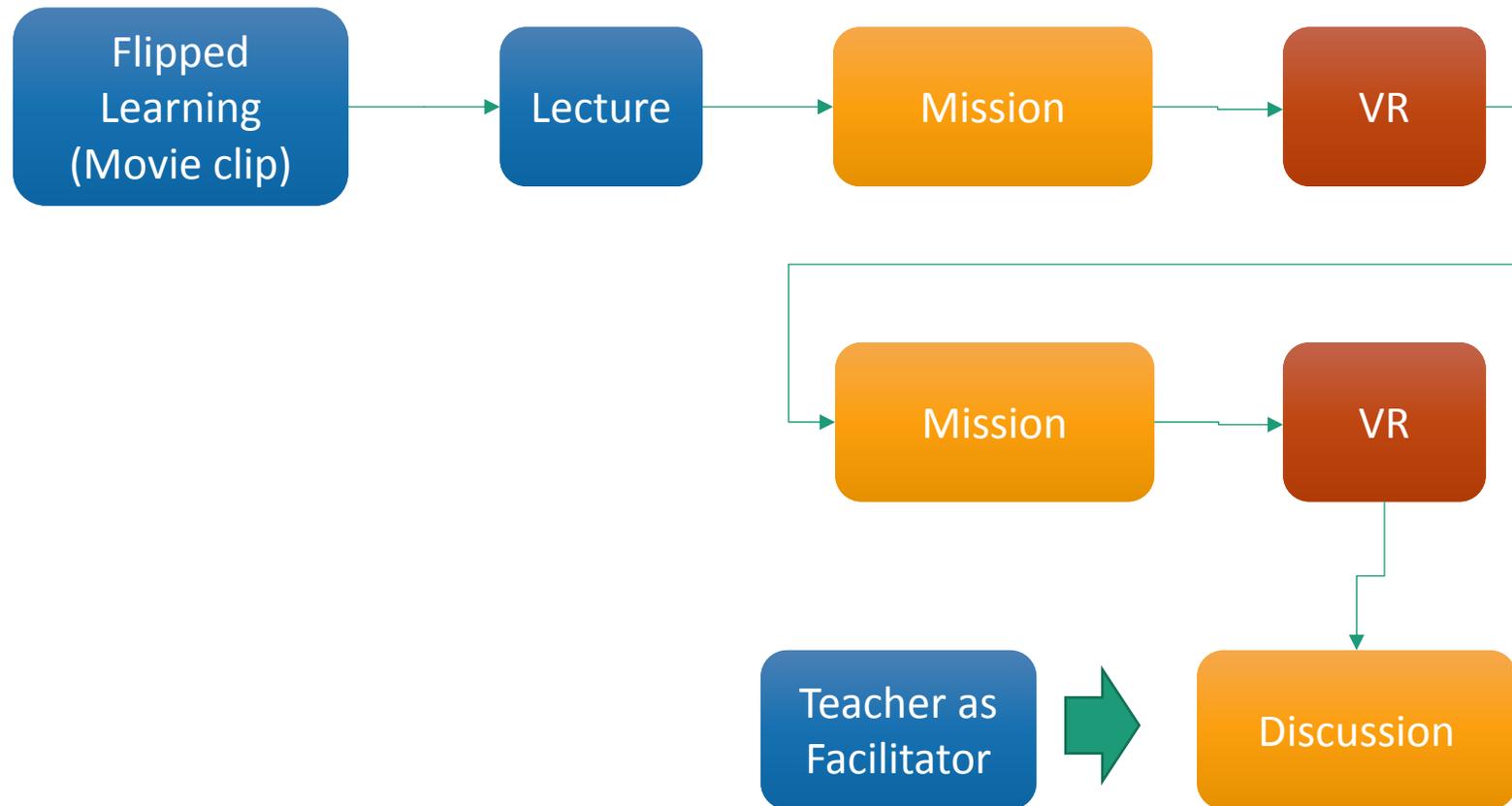
VR Lesson Implementation



VR Lesson Implementation



VR Lesson Implementation



VR Lesson Implementation

- <10 mins for each VR session
- Students' viewport projection
- Use movie only when necessary
- Combine with other tools: Padlet / Kahoot

