

AUGMENTED REALITY: Future of Learning in OUM

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OPEN EDUCATION

The Essence:

- An education system that is open to everyone.
- Involves diverse group of learners.
- Provides a student-centered learning environment.
- Promises quality education through effective usage of technology and pedagogy;
- Promotes active learning and increases one's motivation.

OUM's Learning Environment

Blended Mode of Learning:

- Based on **self-directed learning**
- Collaborative learning via face-to-face tutorials and online forum.

Learners and ICT Skills

- Learners are introduced to basic ICT skills
- A tracer study by the Ministry of Higher Education Malaysia and OUM in 2008 showed that 80.4% of OUM's graduates were able to use software applications (CSM; MOHE, 2008).
- A study by OUM's Mobile Learning Research Group also shows OUM's learner's readiness to receive learning content in various technological features.

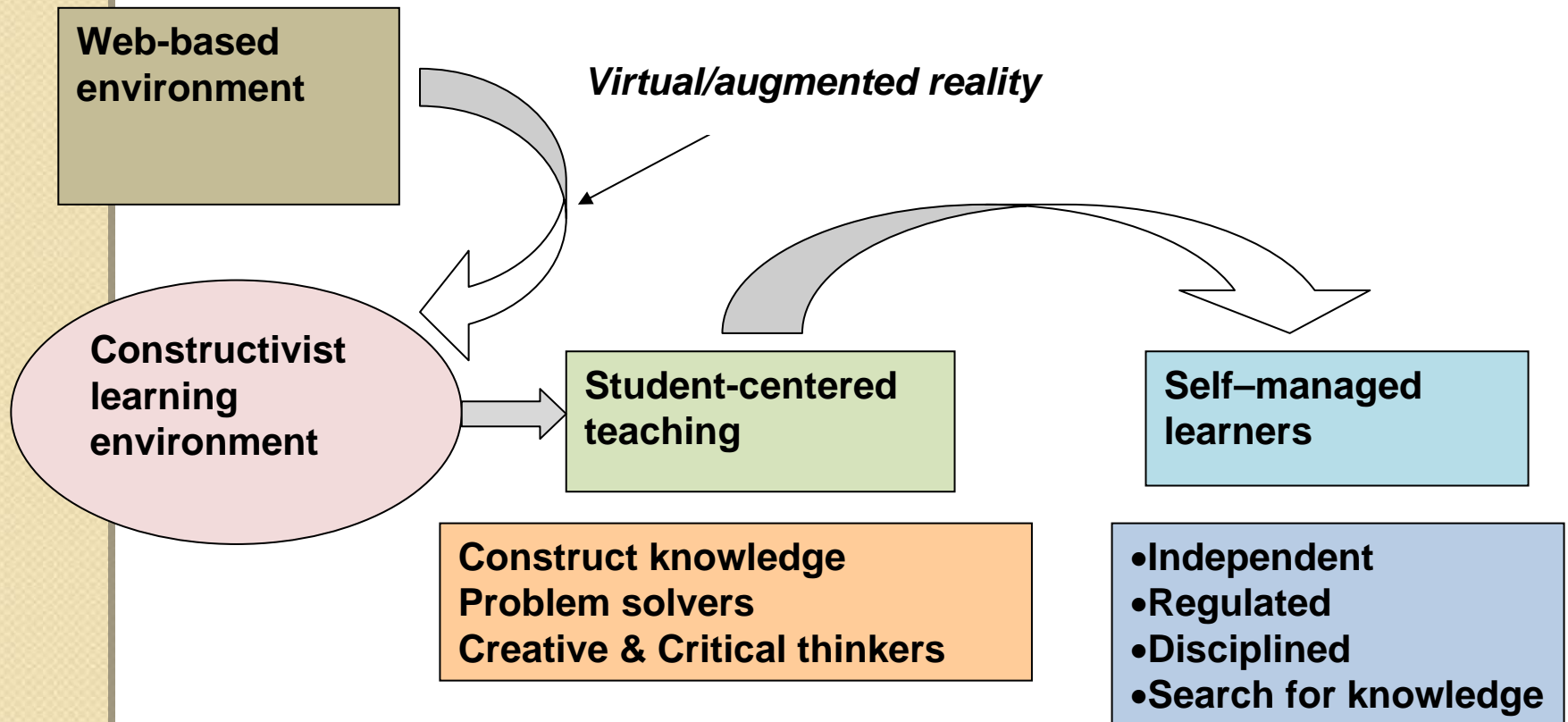
Teaching and Learning Style in The New-age

- Teaching and learning based on constructivist learning theory which encourage growth in the ZPD.
- Student-centred learning → independent learners
- Geared towards producing graduates who are versatile and with excellent problem-solving ability.

THE WAY FORWARD

The strength of an ODL institution lies in its ability to develop **independent learners**.

OPEN DISTANCE LEARNING ENVIRONMENT



THE WAY FORWARD

*Learner-centered collaborative environment can be established through a web-based learning setting, learners play an active role in their construction and building of knowledge.

*Instructors or teachers role is minimized mainly focusing on organization of information or scaffolding learning situations in order to engage learners' interest (Hanley 1994).

*Web-based environment foster a learning environment where students develop problem-solving skills, reasoning skills and critical thinking skills.

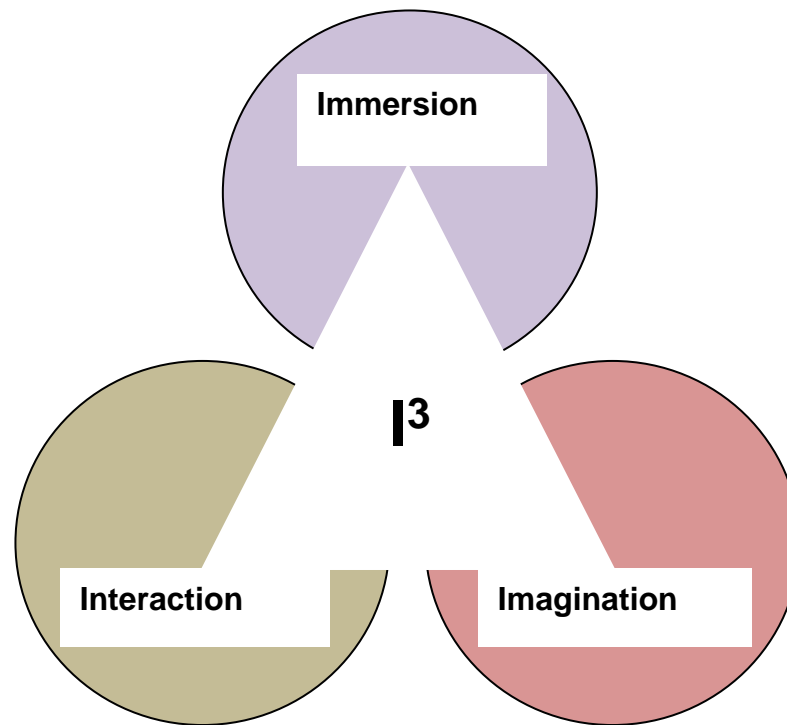
Technology in Education

- Technology opens a whole new world - a world without borders, especially in education-providing education for all but access to technology is a critical factor and can be an obstacle.
- Quality education when it is integrated into a rich, meaningful-centered curriculum.
- But too much technology can affect the pedagogical component of the learning process.

Virtual Reality

- Virtual Reality (VR) is an artificial environment, computer simulated environment that can simulate places in the real world as well as in imaginary worlds
- created and presented in such a way that the user suspends belief and accepts it as a real environment
- Users can interact with a virtual environment using a keyboard, a controller/gaming device or a mouse
- It assumes that the make-to-be world is not static but responds to the user's input (gesture, verbal command etc).
- Interactivity contributes to the feeling of immersion, of being part of the action on the screen.

Burdea's Model of virtual reality (2003): 3 I's (immersion-interaction-imagination)



Augmented Reality

- One of the latest feature in VR is Augmented Reality (AR).
- Aims to enhance a person's perception of the surrounding world.
- Real time virtual computer generated display and is in semantic context with environmental elements
- Interaction of superimposed graphics, audio and other sense enhancements over a real-world environment (Shelton, 2010)
- Smartphones are prospective platforms

Augmented Reality



S & T Education

- Reports on the best method in teaching and learning of science and technical courses suggest that visualization mediated through virtual reality in simulation activities in which computer graphics is used to create a realistic-looking world is an effective method (Khoo ,1998; Pea 1993; Suppes & Morningstar, 1968).
- How can we do it – It can be done through VR & AR
 - offers the possibility of engaging the learners.
 - learning through real-world contexts and solving real problems.
 - increases the ability of learners to transfer knowledge to application.
 - increase their motivation to learn.



The effectiveness of visualization tools is dependent on:

i. The instruction method

ii. The content or topic to be delivered

iii. The type of learners in the classroom

iv. The educational goal to be achieved



THANK YOU