

SIMULATIONS

An Emergent Tool in Education supporting paradigm shift in Teaching and Learning

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LEARNING OUTCOMES

- Explore the Paradigm shift in Teaching and Learning
- Understand difference between old mode Teaching and new way Learning
- Understand how simulation promotes and develop competency based Learning.
- Understand the technology and facilities challenges to support simulations

Paradigm Shift



EVOLVING

PEDAGOGIES

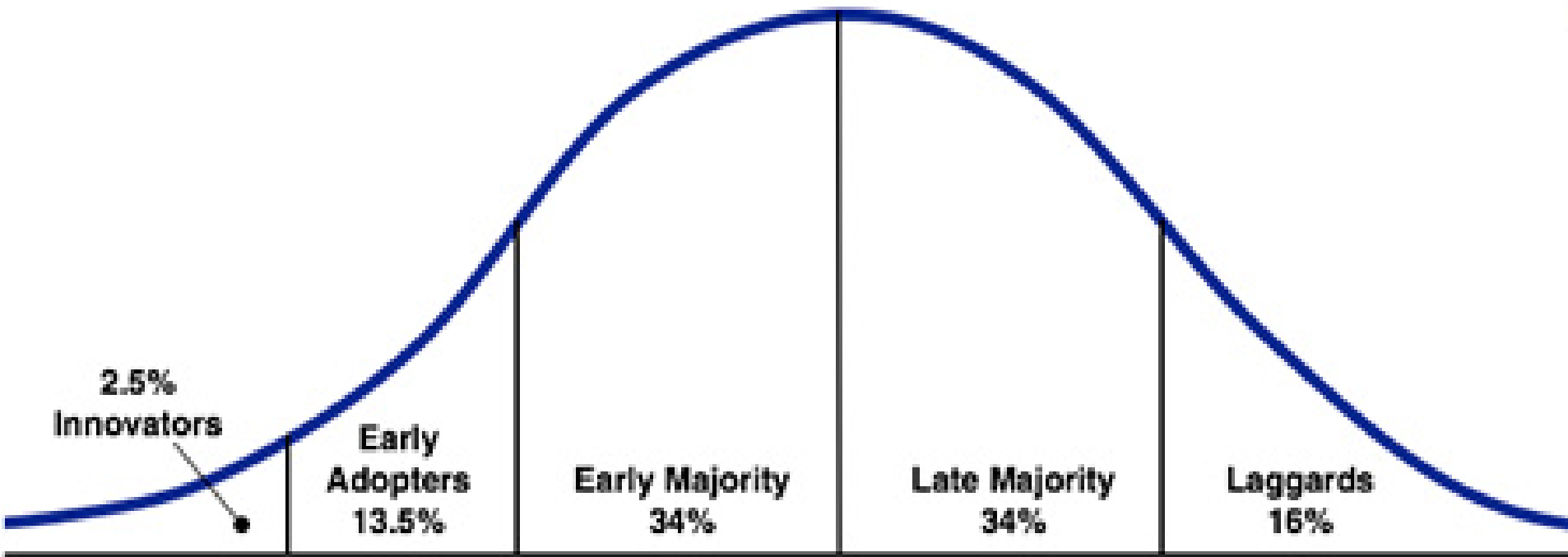
NEW TEACHING AND

LEARNING MODES

- **STUDENT CENTERED**
- **COLLABORATIVE**
- **EXPERIENTIAL**
- **ENGAGING**
- **PARTICIPATIVE**
- **GROUP CENTERED**

INNOVATION ADOPTION

- Dr. Keith Whitworth
- Sociologist Texas Christian University



LAW OF INFUSION OF INNOVATION

SPACE DOES MATTER

Jim Schwartz PHD Grinnell College

Spaces that provide the tools to work with
and that encourage

Teaching thru Learning Pedagogy

ACTIVE NOT PASSIVE SPACES

Spaces that facilitate Learning as an Interaction

- o With Information
- o With Others
- o Team Based

Motivational and Experiential Spaces

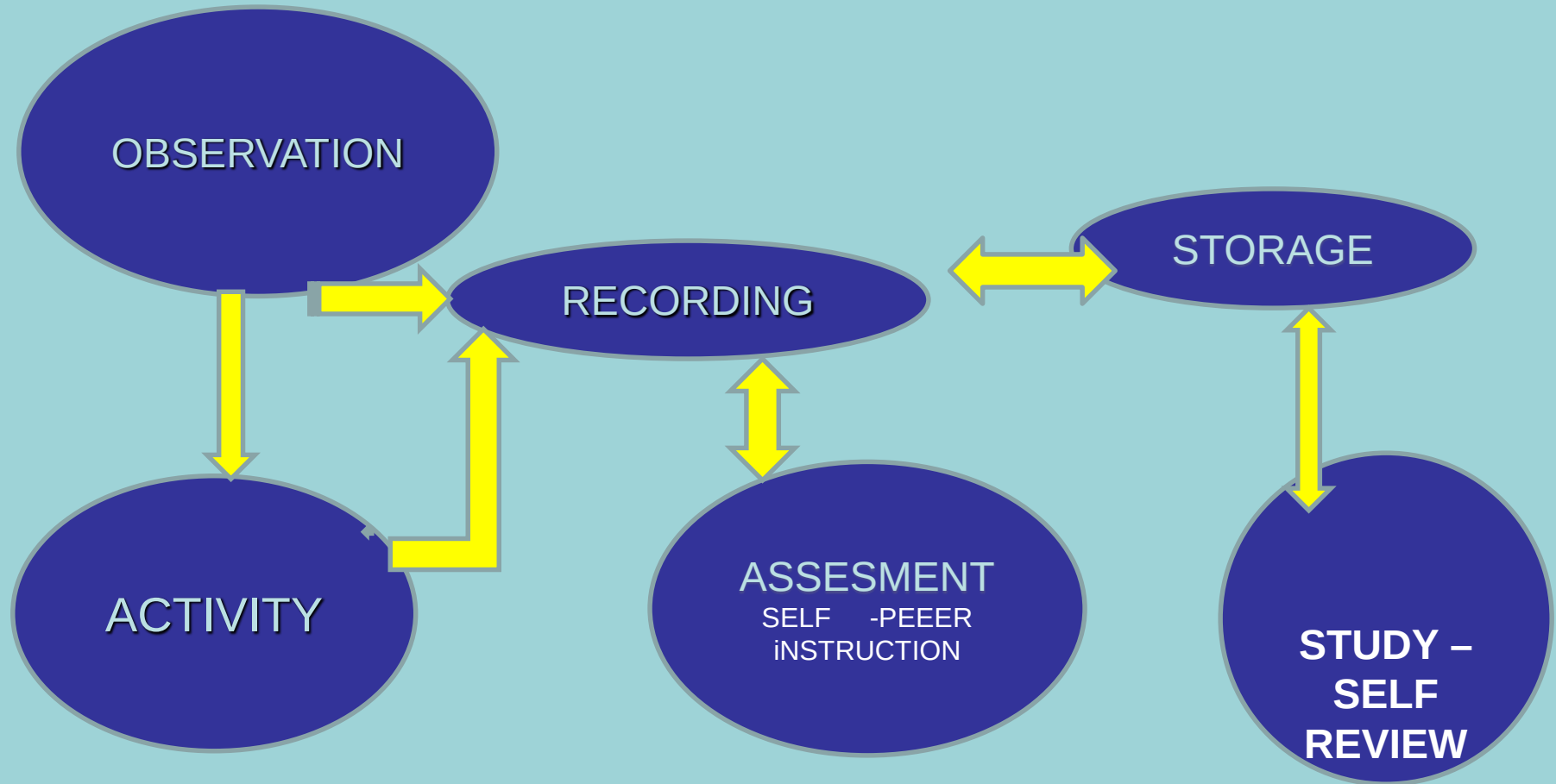
Simulation in the learning environment

- Reality based learning
- No difference between real and simulated activity
- Hands on - students become participants not observers or listeners
- Motivator for learning thru deep involvement
- Tailored and specifically designed for the audience/participants taking specific stages of development .

SIMULATION

- Total immersion in the activity
- Total and complete active learning
- Leads to competency progressing and moving to the next level.
- Needs space replications of the real thing.

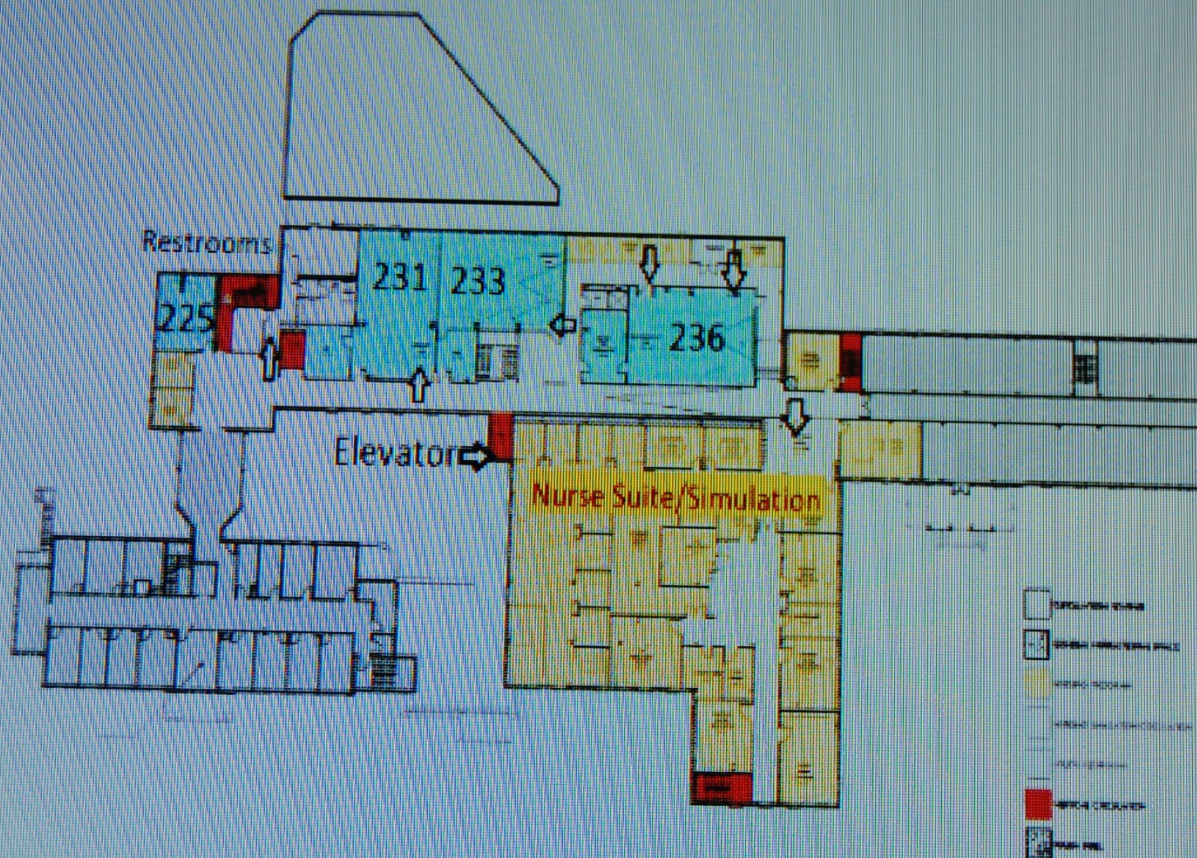
Simulation activities



Simulation applications at UWG

- Nursing Hospital environment
Including ICU, Exam rooms, automated medication dispenser, Obstetrics, Home care, Nurse station etc.
- Nursing skills lab . ER set up.
- College of Education Teach Live
Life size Avatar students

Nursing Floor plan



Nurse station



ICU and Med station



Nursing Simulation



OBS-Pediatric SIM

SIM MOM



SIM Baby



Observation Room



Skills Area



Head wall and Services



Skills area debriefing



Nursing Simulation Costs

» 9,930 GSF

• AV & computers, equipment, Mannequins	\$ 665,328
• Headwalls-Bed Docks	58,790
• Cabling	75,000
• Pxys Med dispensing units (2)	59,596
• Piping, Power etc.	In building cost

EQUIPMENT - TECHNOLOGY

Room 254 Ob/Ped Sim

11 pieces of equipment with corresponding data connections and wiring.

ROOM (UWG#)	DEVICE	SYSTEM (UWG#)	MANUFACTURER	MODEL	SERIAL #	MAC ADDRESS	Port #	IP ADDRESS
OBSERVATION (256)	CTL-SRVR	OB SIM (254)	LAERDAL	HP Z420	2UA450242B	64:51:06:2A:F4:37	256.H.2	160.10.78.144
OBSERVATION (256)	CTL-SRVR	OB SIM (254)	LAERDAL	HP Z420	2UA450241M	64:51:06:2A:F4:AE	256.H.3	160.10.78.145
OBSERVATION (256)	PATIENT MON	OB SIM (254)	O.F.E.	PC		C8:CB:B8:0F:EE:19	256.F.1	160.10.78..148
OBSERVATION (256)	PATIENT MON	OB SIM (254)	O.F.E.	PC		C8:CB:B8:0F:E5:AF	256.G.1	160.10.78..149
OBSERVATION (256)	AUDIO DSP	OB SIM (254)	BIAMP	NEXIA CS	*02466316	00:90:5E:1F:AB:AA	256.H.4	160.10.78.152
OB SIM (254)	PTZ CAM-01	OB SIM (254)	AXIS	PTZ DOME NTWRK CAM	ACCC8E1FC1B5	AC:CC:8E:1F:C1:B5	254.H.1	160.10.78.180
OB SIM (254)	PTZ CAM-02	OB SIM (254)	AXIS	PTZ DOME NTWRK CAM	ACCC8E1FC1B8	AC:CC:8E:1F:C1:B8	254.G.1	160.10.78.181
OB SIM (254)	LINK PAD	SIMMOM	LAERDAL			E0:58:9E:04:5B:2B	254.D.1	160.10.78.201
OB SIM (254)	LINK PAD	SIMNEWB	LAERDAL			E0:58:9E:04:5D:03	254.F.2	160.10.78.202
OB SIM (254)	LAPTOP	SIMMOM	DELL	JVKKN	54VZM12	34:E6:D704:27:11	256.F.1	160.10.78.209
OB SIM (254)	LAPTOP	SIMNEWB	DELL	JVKKN	39T6K12	34:E6:D7:05:B0:81	256.G.1	160.10.78.210

College of Education Teach Live



Teaching the Avatars



Working with the Avatars



Teach Live



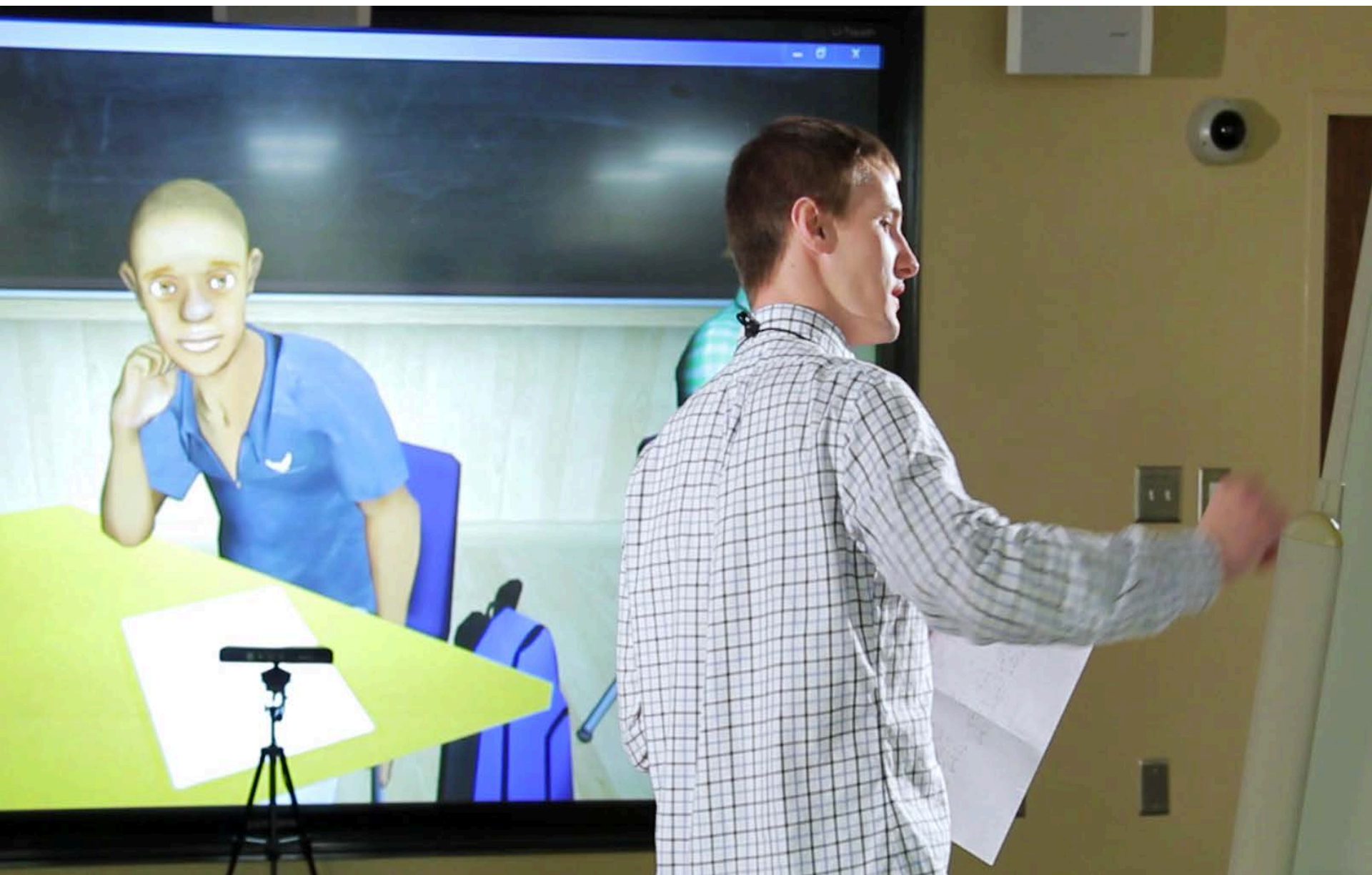
Room 200



Teach LivE Parent interaction



Teach Live interaction



Lessons Learned \$\$

- Significant implications on fiscal needs
- Installation- equipment-construction costs-applications support.
- Facilities management operational hours (24/7)
- Technology training
- Technology Support and Staffing
- Technical Responsibilities

Lessons Learned Teaching and Learning

- Active and deep Learning
- Peer to Peer Training
- Significant Feed back and Self Assessment
- Competency Development
- Competency Reinforcement
- In depth preparation and guidance to meet
Employment market demands

FOOD FOR THOUGHT

- CRITICAL, CREATIVE, SOCIAL,
COURAGEOUS LEARNING
AND
- THE ABILITY TO LEARN FASTER,
DEEPER THAN YOUR
COMPETITORS MAY BE THE ONLY
ADVANTAGE IN A COMPETITIVE
ENVIRONMENT



Simulation an Emergent and Innovative tool in Education

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