

جامعة حمدان بن محمد الذكية  
Hamdan Bin Mohammed Smart University

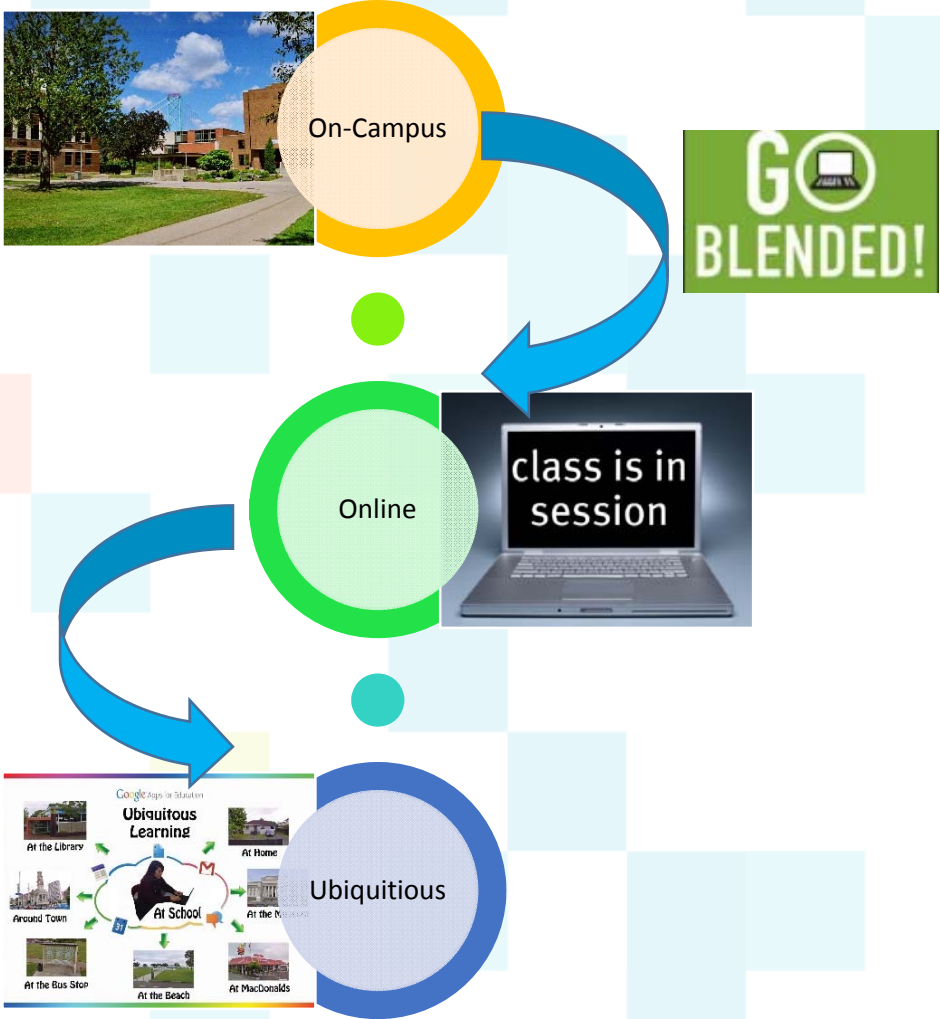
# HBMSU's Smart Learning Environment: Unique and Innovative Learning Designs

**Abtar Darshan Singh**  
**School of E-Education**

ITU-Academia Partnership Meeting, Budapest, Hungary  
19th – 21st September 2017



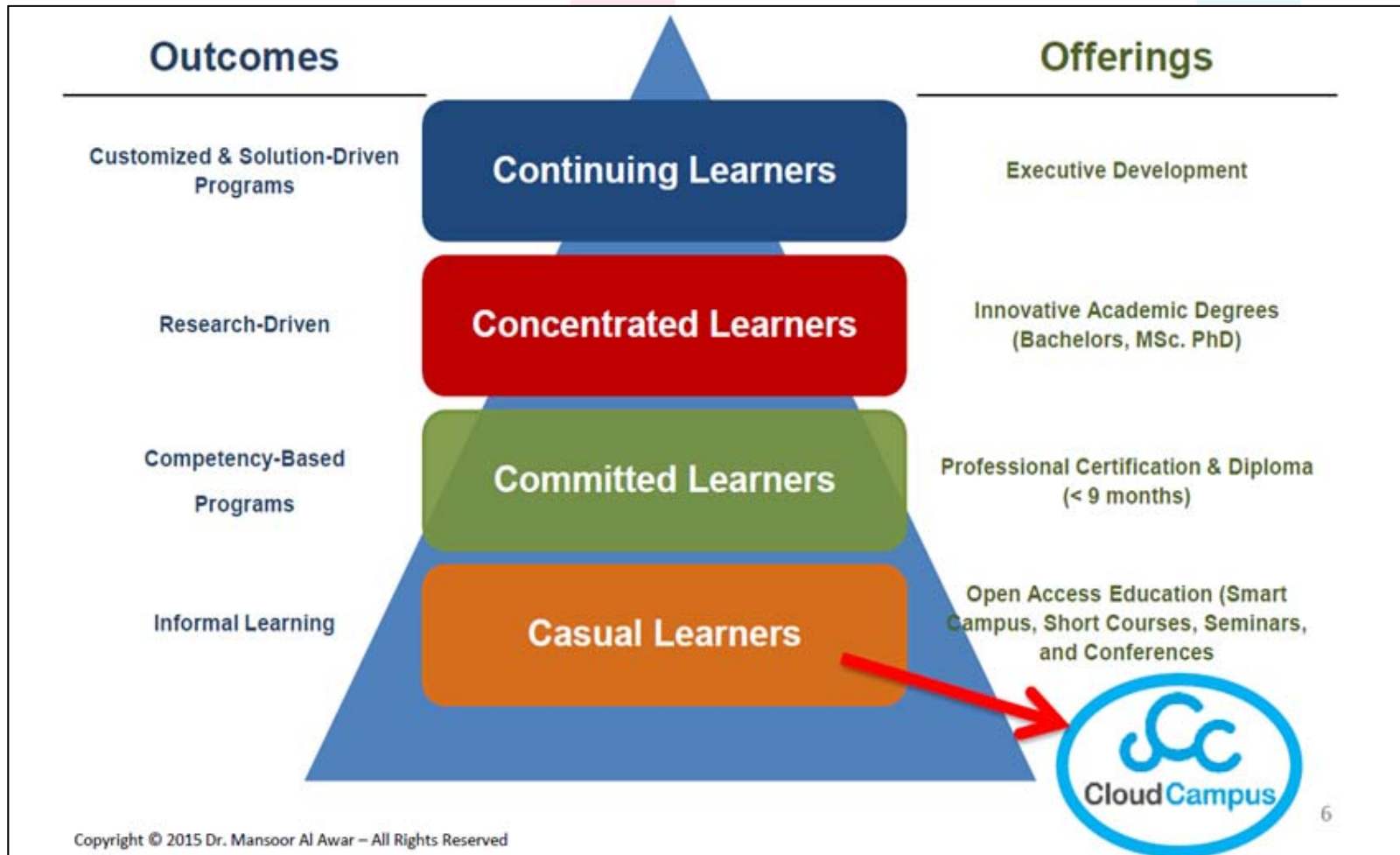
# Teaching and Learning Paradigms

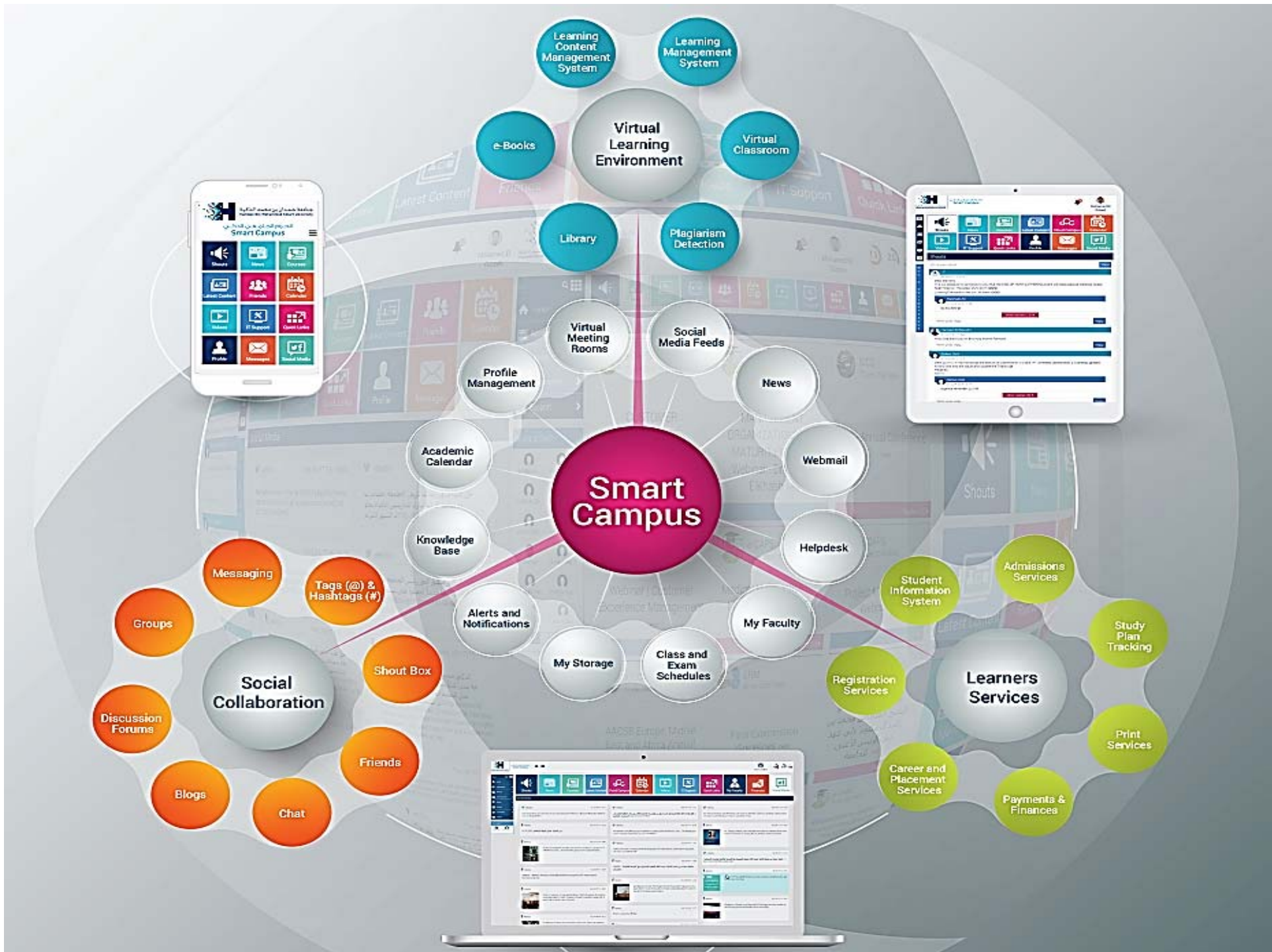


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# 4 Cs





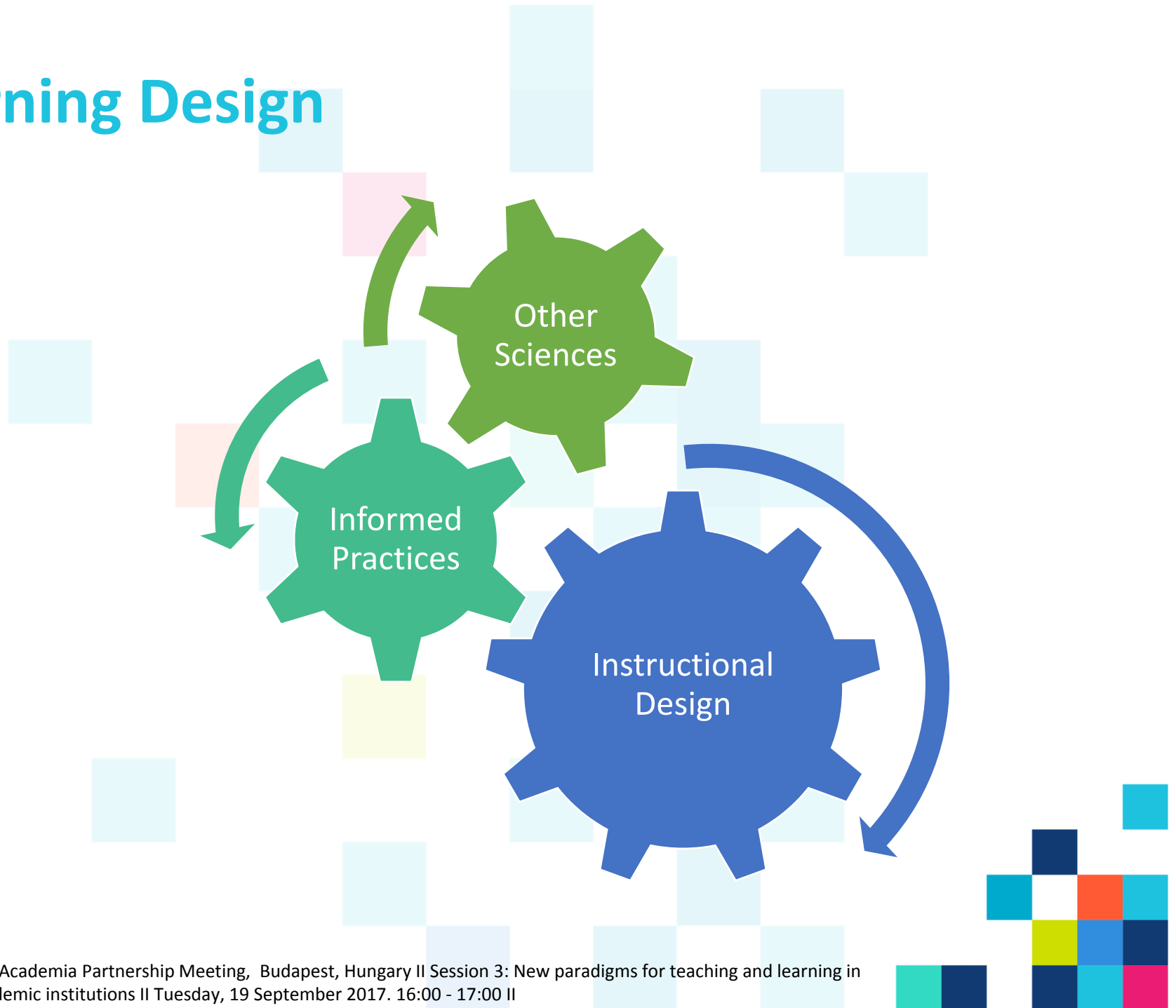


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# Different Learning Designs for Each C



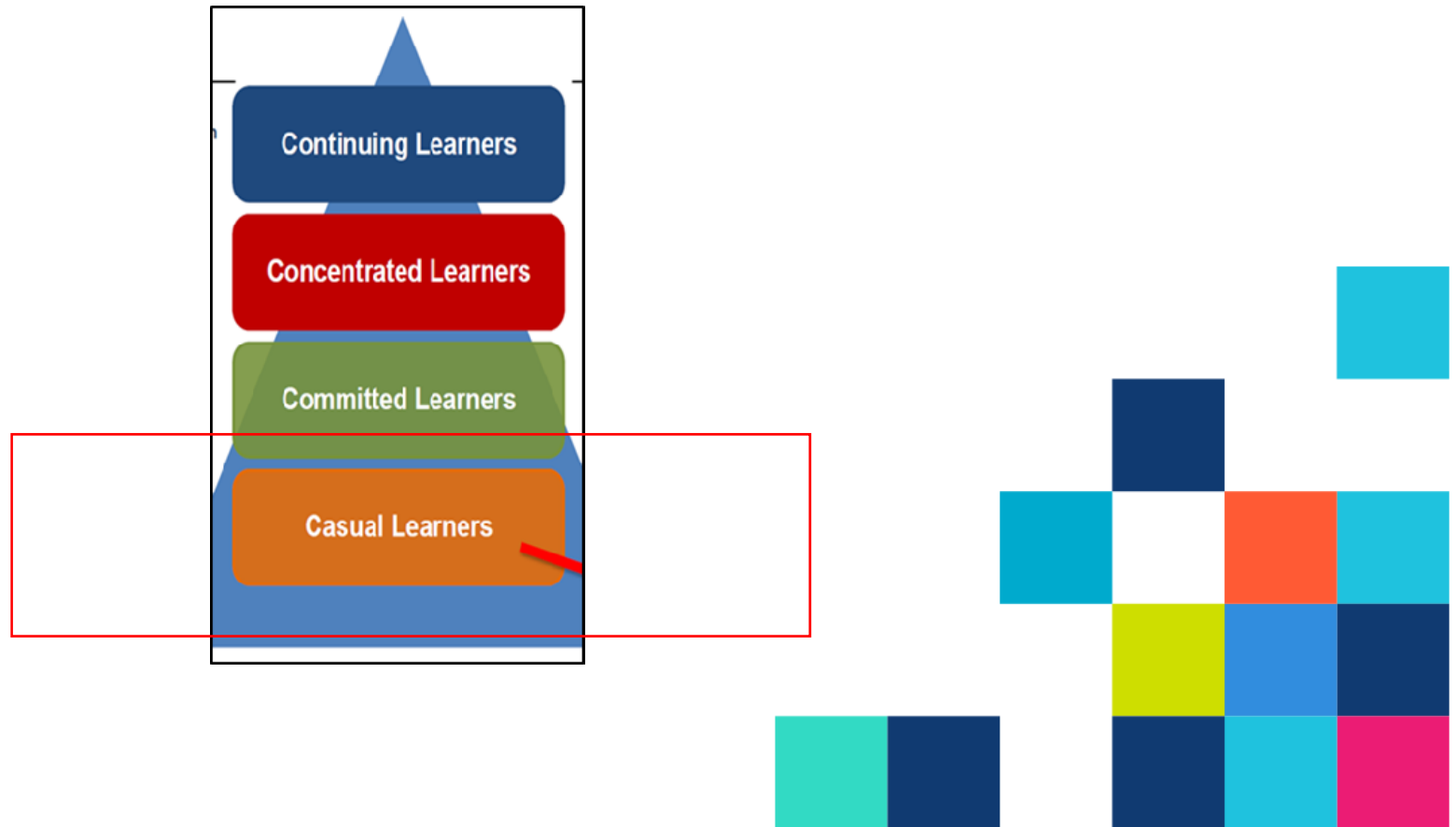
# Learning Design





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## Casual Learners – Informal Learning





# Informal - Cloud Campus

The screenshot displays the Grovo Cloud Campus interface. At the top, there are three tabs: "Learning now", "Completed", and "Viewing history". The "Learning now" tab is active, showing two "IN PROGRESS" items. The first is the "CC Middle Management Program" with 147 of 148 lessons remaining and 3 hours remaining. The second is "Welcome to Cloud Campus" with 4 of 5 lessons remaining and 5 minutes remaining. Below these, there is a "Suggested" section with three icons: a document, a star, and a trophy. On the right side, the "Recently viewed" section lists several items, including "Management Quality: Motivation" (Why Should You Motivate Intrinsicly?), "Communication: Communication for Change Initiatives" (Communicate Your Vision), "Communication: Communication Fundamentals" (Practice Active Listening), "Communication Fundamentals" (Writing Emails That Get Read), "Ultimate Guide to Personal Branding" (Personal Branding, Defined), "Surf the Web Using Chrome for PC" (Navigate Chrome), and "Fundamentals of Online and Offline". At the bottom, there is a survey question: "How likely are you to recommend Grovo to a friend or co-worker?" with a scale from 0 (Not at all likely) to 10 (Extremely likely).

1. Micro-learning content
2. Video-based
3. Mobile friendly
4. Certification
5. Needs-based

# Informal – Innovation Arabia Congress



1. Posters
2. Papers
3. Session Chairs
4. Online Discussions
5. Gamification points

## About Innovation Arabia

Theme: Innovate, Disrupt and Transform

Innovation is a central engine and driving force of economic growth and development - it can drive sustainable economic and social development for the region, while economies based on innovation and knowledge can help in promoting greater growth and spur entrepreneurship. The Arab World needs to embark on a journey of innovation, and prepare the ground for the rise of the creative revolution, creative class and creative society, for the region to transform their economies into full-fledged knowledge-based economies.

[READ MORE](#)

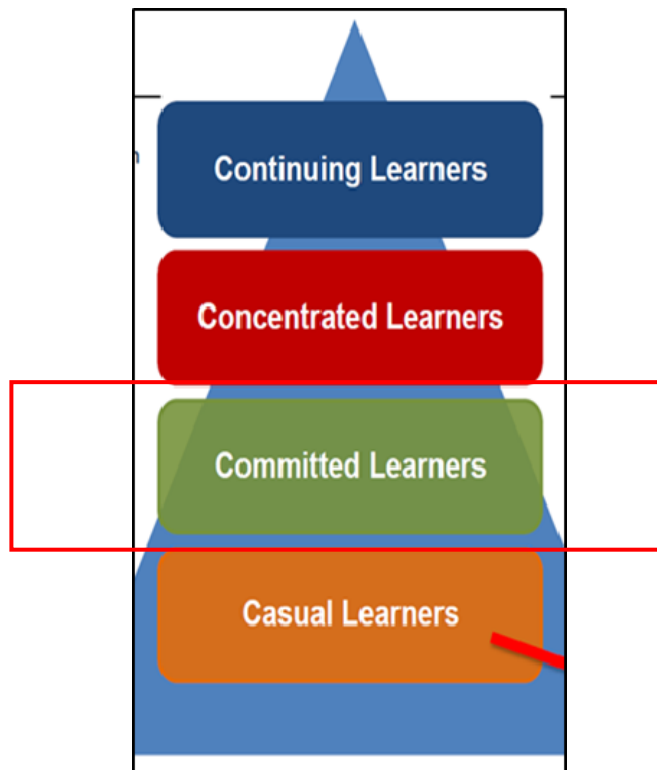
A summary statistics section for the Innovation Arabia 11 event. It features three columns with icons and text: '15+ SEMINARS' (On key trending topics related to business, education, healthcare and environment), '12+ KEYNOTES' (By international, regional and local experts and industry specialists), and '3+ WORKSHOPS' (In specialty areas to enhance your knowledge, sharpen your skills and network with delegates). Below this, there are sections for 'Organized by', 'Press', and 'Venue and Travel'.





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# Committed Learners- Competency-Based



# Competency-Based Learning



## Awareness



Learning resources are uploaded in the VLE a week before session starts

Self-checked assessments are included to ensure action is taken by participants

Self-check assessments are recorded and a small percentage of this activity contributes to the overall assessment grade

## Application



The main focus is hands-on activities towards achieving the stated outcomes.

Projects are created to assess achievement

To proceed to the next task, learners need to demonstrate competency in skills and knowledge appropriate to the completion of the task.

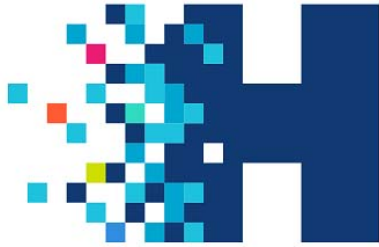
Rubrics are provided as a measurement system

## Advisory



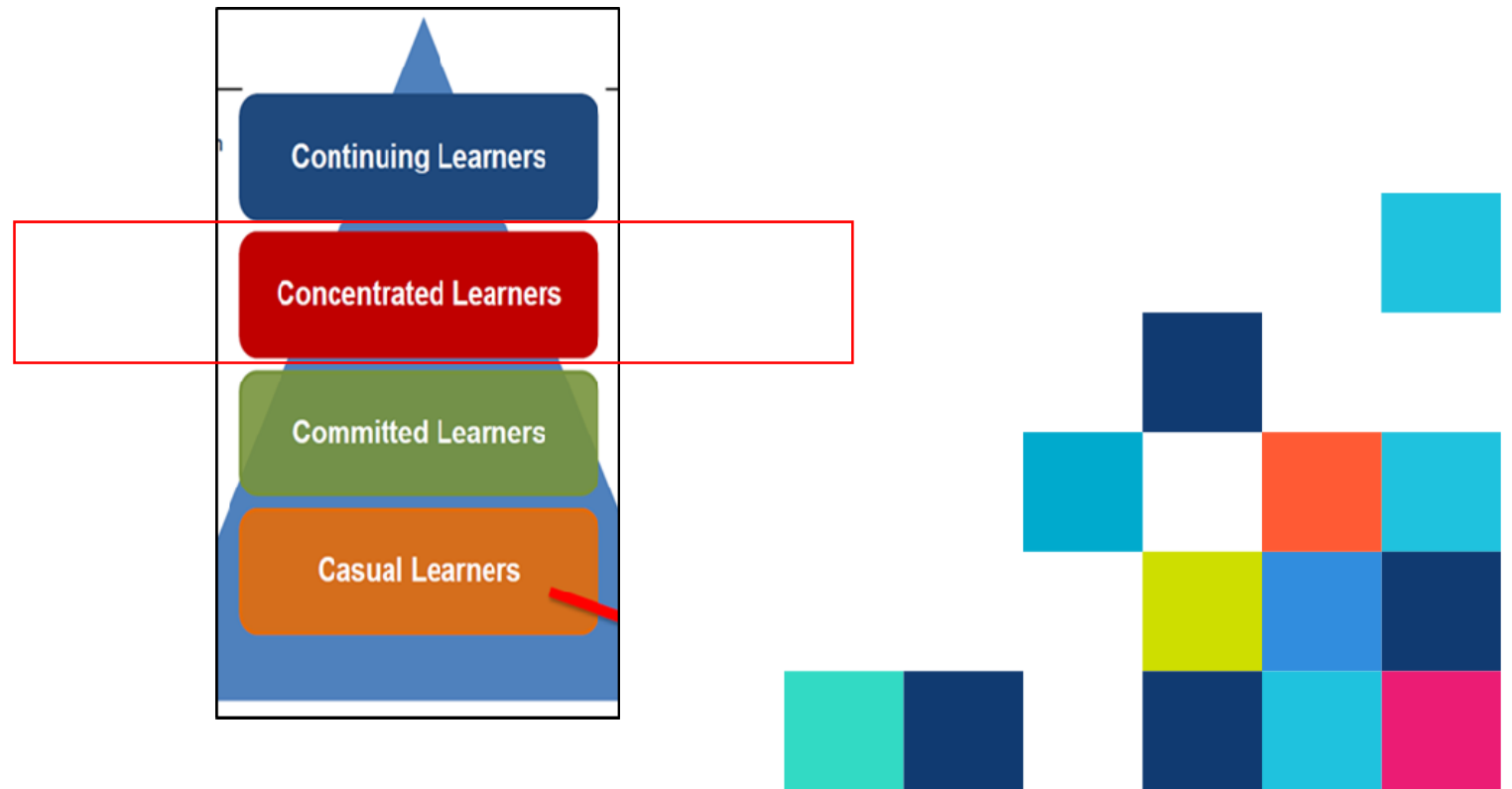
This is a post instructional/ activity whereby participants are further guided to complete their tasks using the VLE discussion boards

The final project is then presented to a panel of evaluators, normally from the organization the individual is attached to, to the instructors and other relevant experts



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# Concentrated Learners- Academic (Research)

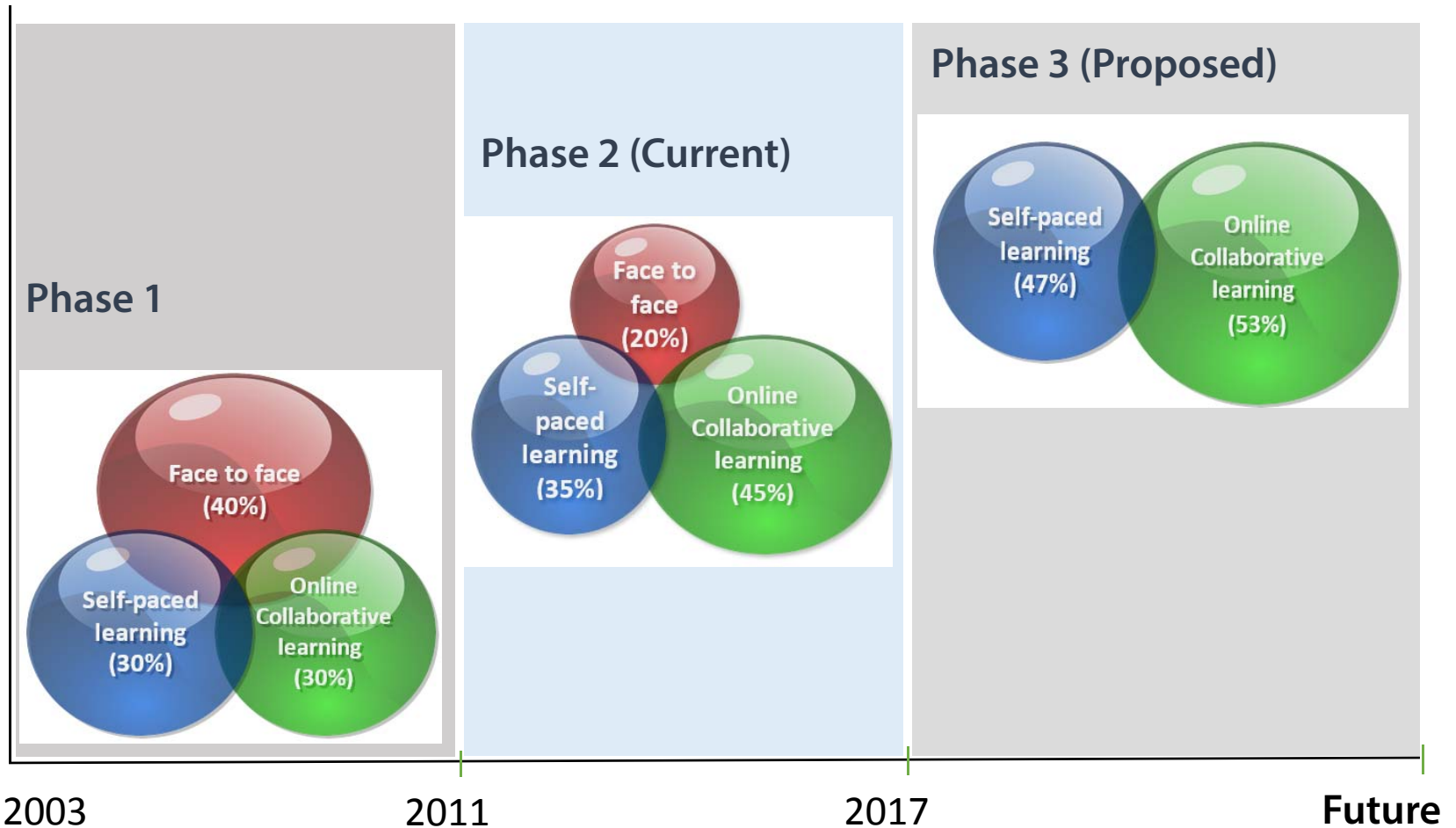


# Blended Learning





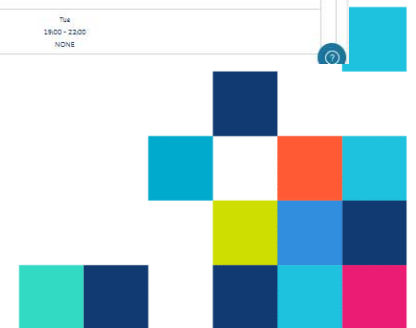
# Evolution of HBMSU Blended Learning Model



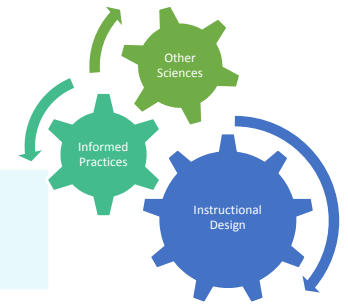
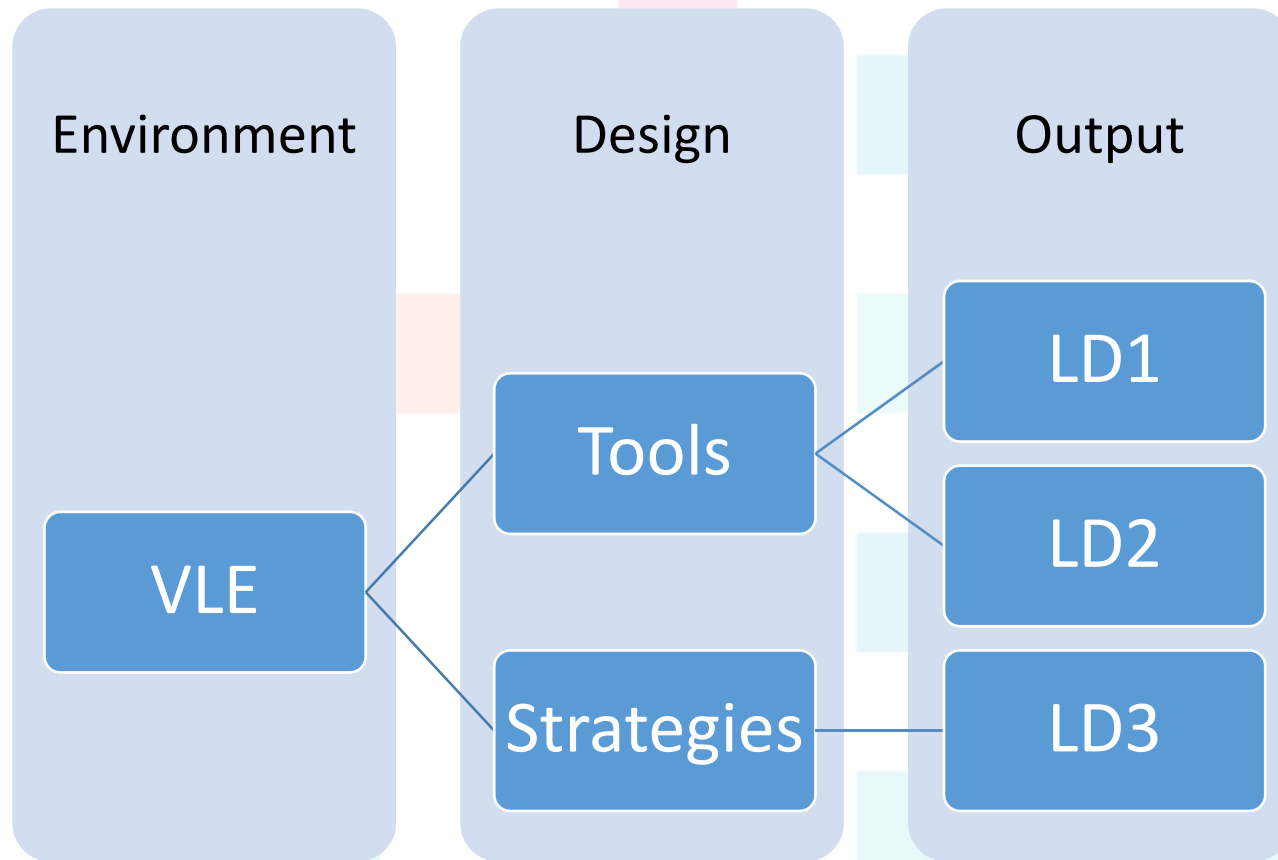


The screenshot shows a VLE interface with a navigation menu on the left and a grid of course cards in the main area. The navigation menu includes Home, Academics, Reports, Registration, Library, Community, and Support. The course cards display course titles, instructors, and exam information.

Course Title	Instructor	Day	Time	Exam Info
Developing Multimedia Material (Fall 2017) sec. 01	Dr. Wanjira Kinuthia	Mon	19:00 - 22:00	NONE
Dissertation 1 (Fall 2017) sec. 01	Dr. Khadeegha Alzouebi	Fri	18:45 - 21:45	NONE
Dissertation 1 (Fall 2017) sec. 02	Prof. Hamdy Abdelaziz	Fri	18:00 - 18:00	NONE
Dissertation 2 (Fall 2017) sec. 01	Dr. Khadeegha Alzouebi	Fri	18:30 - 18:30	NONE
Effective Design and Delivery for Online Courses (Fall 2017) sec. 01	Dr. Semiyu Aderibigbe	Sun	19:00 - 22:00	NONE
Innovation and Change Management in e-Education (Fall 2017) sec. 01	Dr. Khadeegha Alzouebi	Mon	19:00 - 22:00	Classroom 18
Introduction to Educational Technologies (Fall 2017) sec. 01	Prof. Hamdy Abdelaziz	Sun	19:00 - 22:00	Classroom 2
Learning Theories for Online Education (Fall 2017) sec. 01	Dr. Gretchen Lowerison	Sat	18:30 - 18:30	NONE
PHD Dissertation (Fall 2017) sec. 02	Prof. Abtar Singh	Sun	14:00 - 17:00	NONE
Planning & EVALUATING Educational Programs (Fall 2017) sec. 01	Dr. Semiyu Aderibigbe	Sat	19:00 - 22:00	NONE
Principles for Educational Administration & LEADERSHIP (Fall 2017) sec. 01	Dr. Khadeegha Alzouebi	Thu	19:00 - 22:00	Classroom 2
Principles of Instructional Design (Fall 2017) sec. 01	Dr. Wanjira Kinuthia	Tue	19:00 - 22:00	NONE



# Learning Design



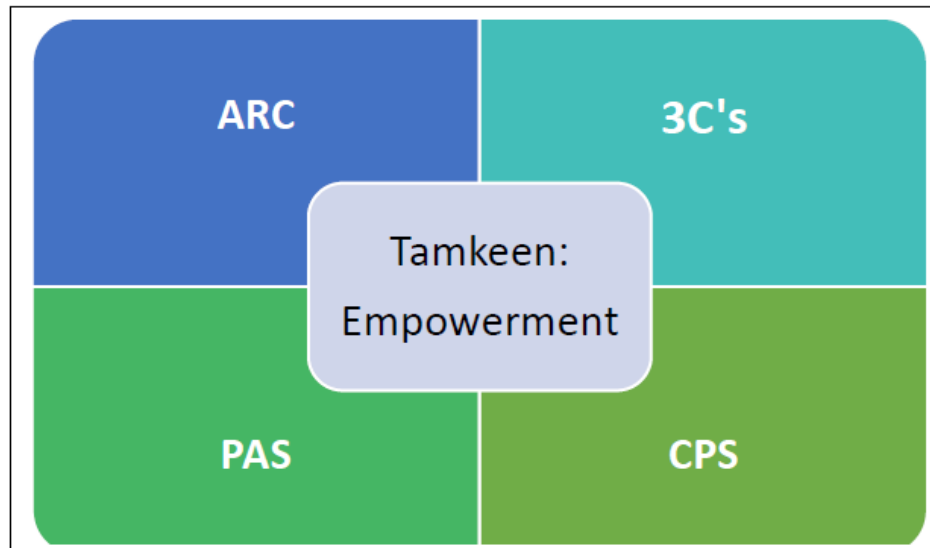
# Learning Designs

ACTIVITIES

- Assignment
- Blog
- Chat
- Checklist
- Choice
- Database
- Feedback
- Forum
- Glossary
- Lesson
- Quiz
- Recorded Presentation
- Survey
- Wiki
- Workshop

**ARC: Analyze, Read, & Collaborate.** The main purpose of the ARC is to empower learners towards **inquiry learning**

**3Cs: Connect, Collaborate & Create.** The main purpose of 3Cs is to empower learners to take charge and be creative.



**PAS: Present, Activate, Synthesize.** The main purpose of PAS is to enable higher levels of thinking, especially decision making.

**CPS: Collaborate, Present and Summarize.** The main purpose of CPS is to enhance communication skills and emotional intelligence.

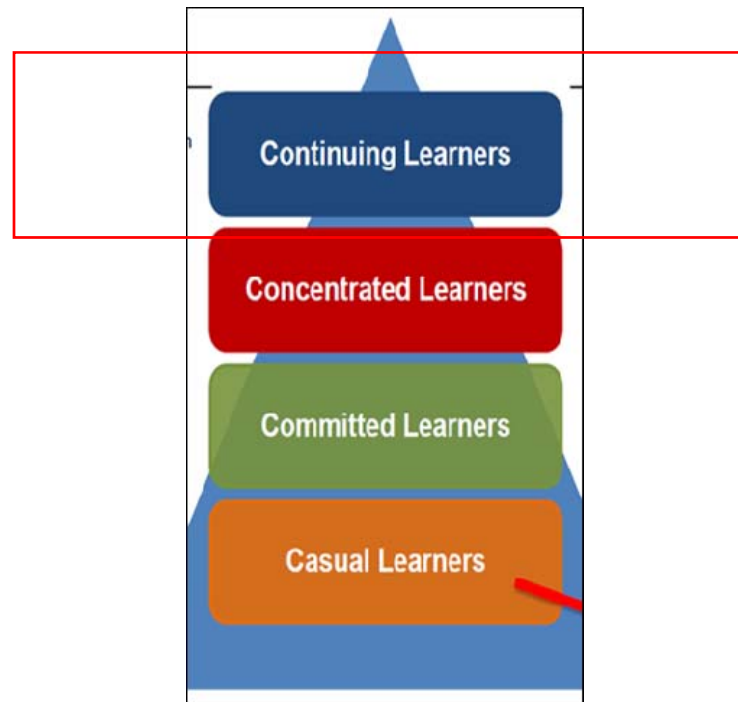
RESOURCES

- Glossary
- Lesson
- Quiz
- Recorded Presentation
- Survey
- Wiki
- Workshop
- File
- Folder
- HTML Page
- Label
- LCMS Resource
- Link (URL)
- Link to Digitized Material
- News



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# Continuing Learners -Customized



# On-The-Job



# Certificate of Instruction and E-Learning (CIEL)

- Fundamentals of Online Instruction
- Educational Technology:
  - Synchronous Learning Environment (Virtual Classroom)
  - Virtual Learning Environment (VLE)
  - Online Learning Environment (LCMS, e-Library and Studio)
- Social learning
- Learning Assessment
- Borderless Online Content
- Content development using Authoring tools
- Learners Engagement / Online Collaboration
- Quality and Continuous Improvement




# Example from HBMSU- Certificate of Instruction and E-Learning (CIEL)

My Home > My Programs > Master of Science in Public Health > Health Care Systems

**Week Two**

Topic of the week :  
**Global Health and International Health**



**Welcome back!** To refresh our memories, last week we covered this Topic: *Whole Person Care and Systems Thinking in Health*. We had quite a number of great discussions and issues especially related to systems thinking. For those of you who need to re-visit last week's topic, the following is a great interactive learning resource created by HBMSU: [healthcare systems theory](#). It starts with a short overview of systems approach and provides detailed descriptions and examples of systems analysis.

**This week, we are looking at Global and International Health.**

What comes to your mind when you see such a topic: **Global and International Health**

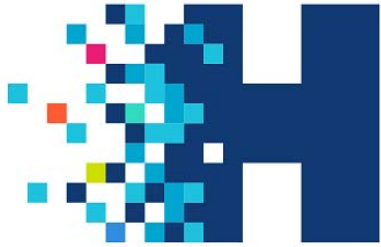


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# New Learning Environments – Ubiquitous and Smarter







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# Smart Learning Environment

The International Association for Smart Learning Environments defines SLE as an environment that features the use of innovative technologies and elements that allow **greater** flexibility, effectiveness, adaptation, engagement, motivation and feedback for the learner

(Spector, 2014)



# Elements of Smart Learning Environment

	Common Digital Learning Environment	Smart Learning Environment
Learning Resources	<ol style="list-style-type: none"> <li>1. Digital resources based on rich media</li> <li>2. Online access becomes the mainstream</li> <li>3. Users select resources</li> </ol>	<ol style="list-style-type: none"> <li>1. Digital resources independent of the devices</li> <li>2. Seamless connection or automatic synchronization becomes fashionable</li> <li>3. Deliver on-demand resources</li> </ol>
Learning Tools	<ol style="list-style-type: none"> <li>1. All-function in one tools, systematized tools</li> <li>2. Learners judge the technology environment</li> <li>3. Learners judge the learning scenarios</li> </ol>	<ol style="list-style-type: none"> <li>1. Specialized tools and miniaturized tools</li> <li>2. Automatically sensing technology environment</li> <li>3. Learning scenarios are automatically recognized</li> </ol>
Learning Community	<ol style="list-style-type: none"> <li>1. Virtual community focusing on online communication</li> <li>2. Self-selected community</li> <li>3. Restricted to information skills</li> </ol>	<ol style="list-style-type: none"> <li>1. Combine with the mobile interconnected real community to communicate anytime and anywhere</li> <li>2. Automatically matched communities</li> <li>3. Depend on media literacy</li> </ol>
Teaching Community	<ol style="list-style-type: none"> <li>1. Difficult to form a community, which is highly dependent on experience</li> <li>2. Make the regional community possible</li> </ol>	<ol style="list-style-type: none"> <li>1. Automatically form community, which highly concerns about the users' experience</li> <li>2. Make the cross- regional community fashionable</li> </ol>
Learning Methods	<ol style="list-style-type: none"> <li>1. Focus on individual knowledge construction</li> <li>2. Focus on low-level cognitive objectives</li> <li>3. Unify evaluation requirements</li> <li>4. Interest becomes the key to the diversity of learning methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. Highlight the knowledge construction of community collaboration</li> <li>2. Focus on high-level cognitive objectives</li> <li>3. Multiple evaluation requirements</li> <li>4. Thinking becomes the key to the diversity of learning methods</li> </ol>
Teaching Methods	<ol style="list-style-type: none"> <li>1. Emphasize resource design and explanation;</li> <li>2. Summative evaluation of the learning outcomes based on the learners' behaviours; and</li> <li>3. Observation of learning behaviours.</li> </ol>	<ol style="list-style-type: none"> <li>1. Emphasize activity design and guidance</li> <li>2. Adaptive evaluation of learning outcomes based on the cognitive characteristics of learners</li> <li>3. Intervention in learning activities</li> </ol>

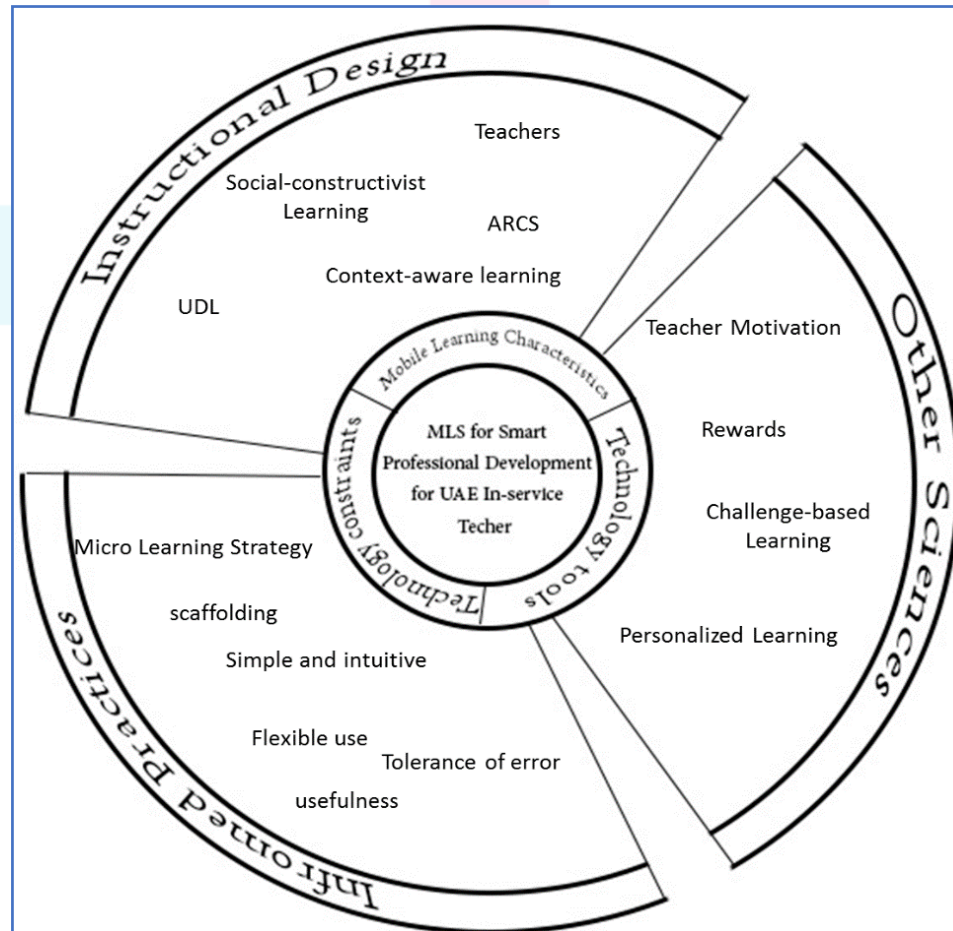
# Elements of Ubiquitous Learning

- *Permanency*: The information remains unless the learners purposely remove it
- *Accessibility*: The information is always available whenever the learners need to use it
- *Immediacy*: The information can be retrieved immediately by the learners
- *Interactivity*: The learners can interact with peers, teachers, and experts efficiently and effectively through different media
- *Context-awareness*: The environment can adapt to the learners real situation to provide adequate information for the learners

Soung, 2009, p.81



# I-MILE : Intelligent-Mobile Immersive Learning Environment Framework



AlAwani and Singh, 2017



# Gamification of HBMSU's Smart Campus

**Academic Profile**

**Gamification Summary**

<b>88</b> Rank	<b>4</b> Level	<b>1010</b> Points
<b>1</b> Badges	<b>0</b> Missions	<b>63</b> Actions

**211 Points to Level 5**

**Badges**

- Dean's List
- Perfect Attendance

**History**

Member for 1 year 2 months

Group membership: - Private group -

**Relationships**

Relationship actions

## How to Get Points

- 100% completion
- Course Discussion Topic (Create/Reply)
- Member for 1 year 2 months
- Journal Paper (Publish)
- News Post
- Volunteer
- Attended event
- Course Discussion Topic (Reply)
- Discussion Board Topic (Create/Reply)
- Discussion Topic (Reply)
- Master Dissertation (Complete)

## Recent Actions

Leveled up to Level 2	04 Apr 2017 - 02:15 pm	
Attended HBMSU Innovation Arabia	04 Apr 2017 - 02:15 pm	100 points
Scored > 90 in graded VLE activity	29 Mar 2017 - 04:30 pm	20 points
Scored > 90 in graded VLE activity	29 Mar 2017 - 04:30 pm	20 points
Marked as Present in a class	20 Mar 2017 - 02:43 pm	5 points
Replied to a discussion topic	19 Mar 2017 - 07:19 pm	5 points
Marked as Present in a class	16 Mar 2017 - 11:45 pm	5 points





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# In summation

Paradigms for teaching and learning are evolving at a phenomenal rate. Institutions need to have think tanks to make the change in a manner that will benefit the learners and the entire community. Our learners are more and more digitally oriented!

**It's not jumping on the bandwagon anymore. We need to be leading continuously....Singh (2017)**





## STAY CONNECTED

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You can connect with HBMSU via:

HBMSU Social: Stay connected with the University and its social media channels - HBMSU on Twitter, Instagram, Facebook, YouTube and LinkedIn.

Smart Campus: An open interactive platform, the Smart Campus, provides a unique glimpse of the learning experience in the University.

 [facebook.com/HBMSU](https://facebook.com/HBMSU)  
 @HBMSU  
 @HBMSUDubai  
 <https://smartcampus.hbmsu.ac.ae>