Technologies and applications for blended and online learning

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By the end of this presentation, you should be able to;

1. Describe the concepts; pedagogy, eLearning, online learning and blended learning
2. Describe pedagogical frameworks or models for online learning
3. Apply affordance analysis methodology for online learning systems
4. Blending tools for effective teaching and learning
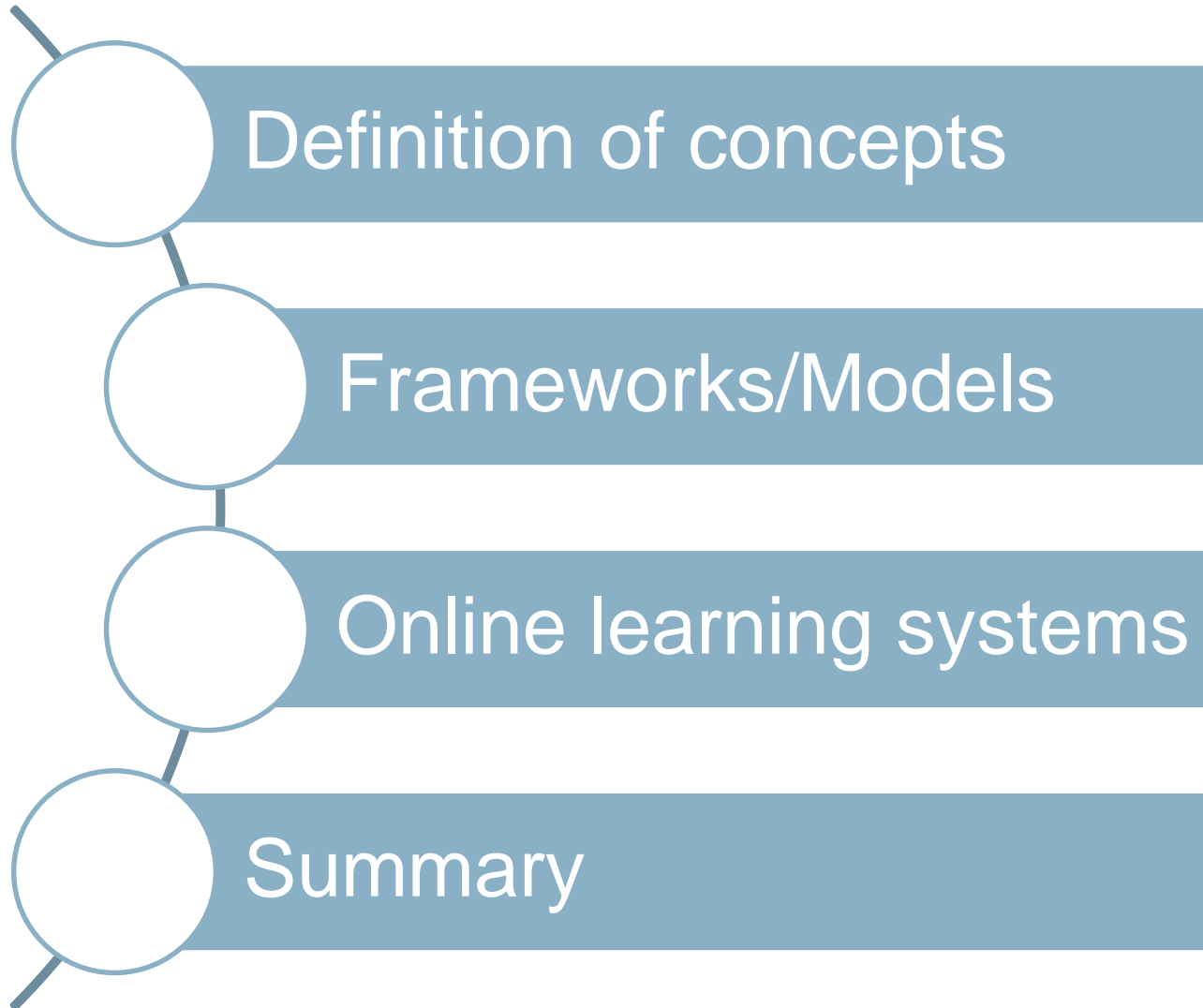
- Definition of concepts

- Frameworks/Models

- Online learning systems

- Summary

Concepts

Frameworks/ Models

Online learning systems

Summary

Multiples bolts to loosen and tighten

Akin to multiple challenges in the field

Concepts

Frameworks/ Models

Online learning systems

Summary

❖Pedagogy
❖Face to Face Teaching
❖eLearning
❖Online learning
❖Blended learning

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ Pedagogy is the art and science of teaching

- methods

- and practices

❖ Teaching and learning requires

- resources (electronic & non electronic)

- activities

- Feedback and assessment

A persons learning may be enhanced through engagement with others (Vygotsky, 1978)

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ Reciprocal teaching;

❖ Group work;

❖ Brainstorming;

❖ Panel discussions;

❖ Reflective reading;

❖ Debates;

Concepts

Frameworks/ Models

Online learning systems

Summary

Using menti, define the concepts face to face teaching , eLearning, online learning and blended learning.

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ The darling

❖ The teacher and learners are usually connected in time and space

❖ Terms used

  ❖ Presential

  ❖ Traditional

  ❖ Internal

❖ Most common pedagogy

❖ Usually teacher-centered

Concepts

Frameworks/ Models

Online learning systems

Summary

"… an open and distributed learning environment that utilises pedagogical tools, enabled by Internet and Web-based technologies, to facilitate learning and knowledge building through meaningful action and interaction" (Dabbagh, 2005)

Concepts

Frameworks/ Models

Online learning systems

Summary

The use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. It is a "thoughtful fusion of face-to-face and online learning experiences" (Garrison & Vaughan, 2008). There are also blended programmes, in which students study some courses in face-to-face classrooms and other courses are delivered fully online

Concepts

Frameworks/ Models

Online learning systems

Summary

Blended learning involves;
1. Blending pedagogies
2. Blending methods
3. Blending technologies

Benefits of Blended Learning

Concepts

Frameworks/ Models

Online learning systems

Summary

❖**Opportunity for collaboration at a distance**: Individual students work together virtually in an intellectual endeavor as a learning practice.

❖**Increased flexibility**: Technology-enabled learning allows for learning anytime and anywhere, letting students learn without the barriers of time and location but with the possible support of in-person engagement.

❖**Increased interaction**: Blended learning offers a platform to facilitate greater interactivity between students, as well as between students and teachers.

❖**Enhanced learning**: Additional types of learning activities improve engagement and can help students achieve higher and more meaningful levels of learning.

❖**Learning to be virtual citizens**: Learners practice the ability to project themselves socially and academically in an online community of inquiry. Digital learning skills are becoming essential to be a lifelong learner, and blended courses help learners master the skills for using a variety of technologies.

Concepts

Frameworks/ Models

❖ Constructive alignment framework

❖ Gilly's Five stage model of online teaching and learning

❖ Affordances Analysis e-Learning Design Methodology

Online learning systems

Summary

Concepts

Frameworks/ Models

Online learning systems

Summary

What can students do at the end of the course?

What learning activities will help students achieve these learning outcomes?

INTENDED LEARNING OUTCOMES

LEARNING ACTIVITIES

ASSESSMENT AND FEEDBACK

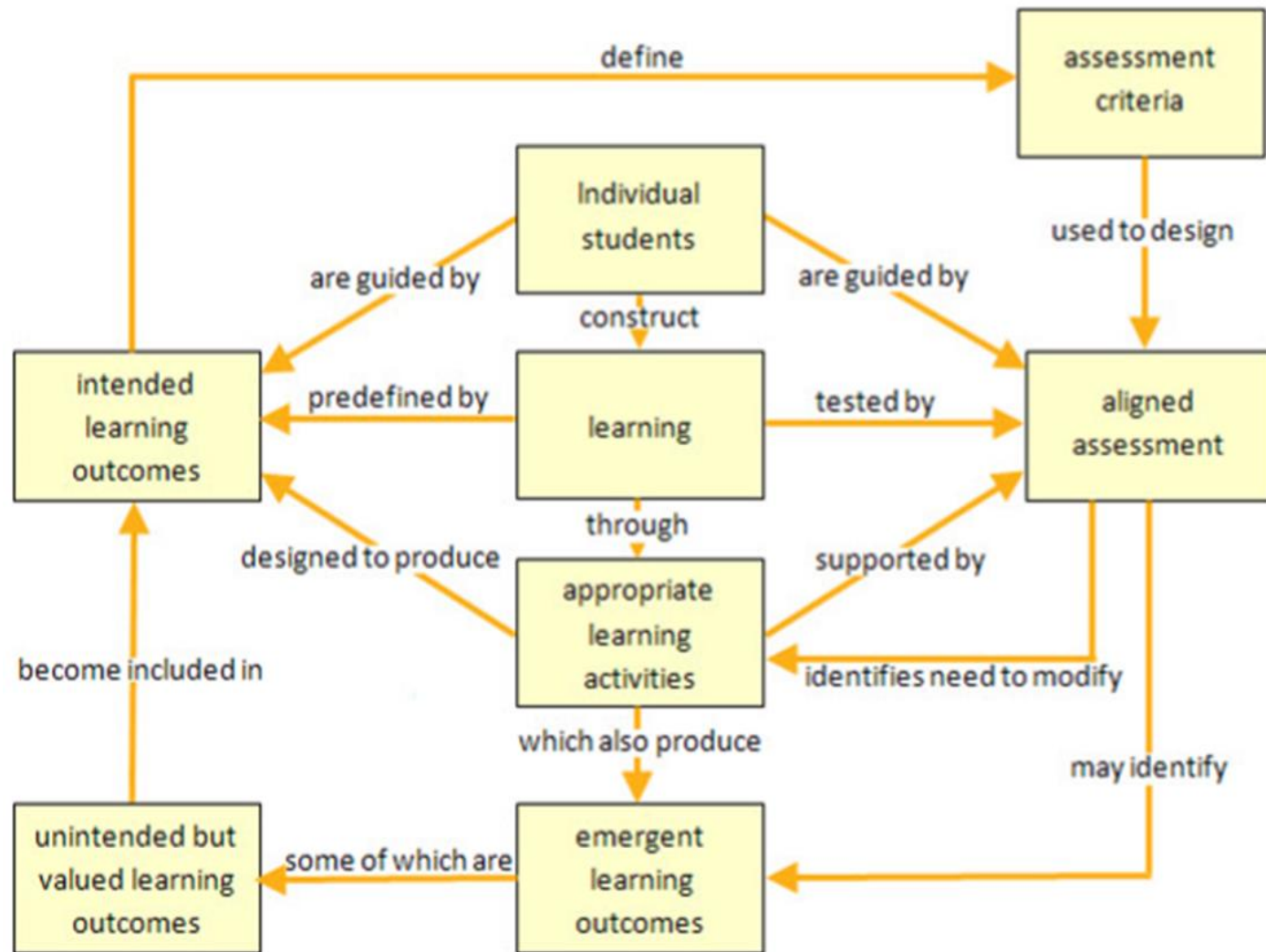How do you know if a student has achieved these outcomes?

Concepts

Frameworks/ Models

Online learning systems

Summary

Concepts

Frameworks/ Models

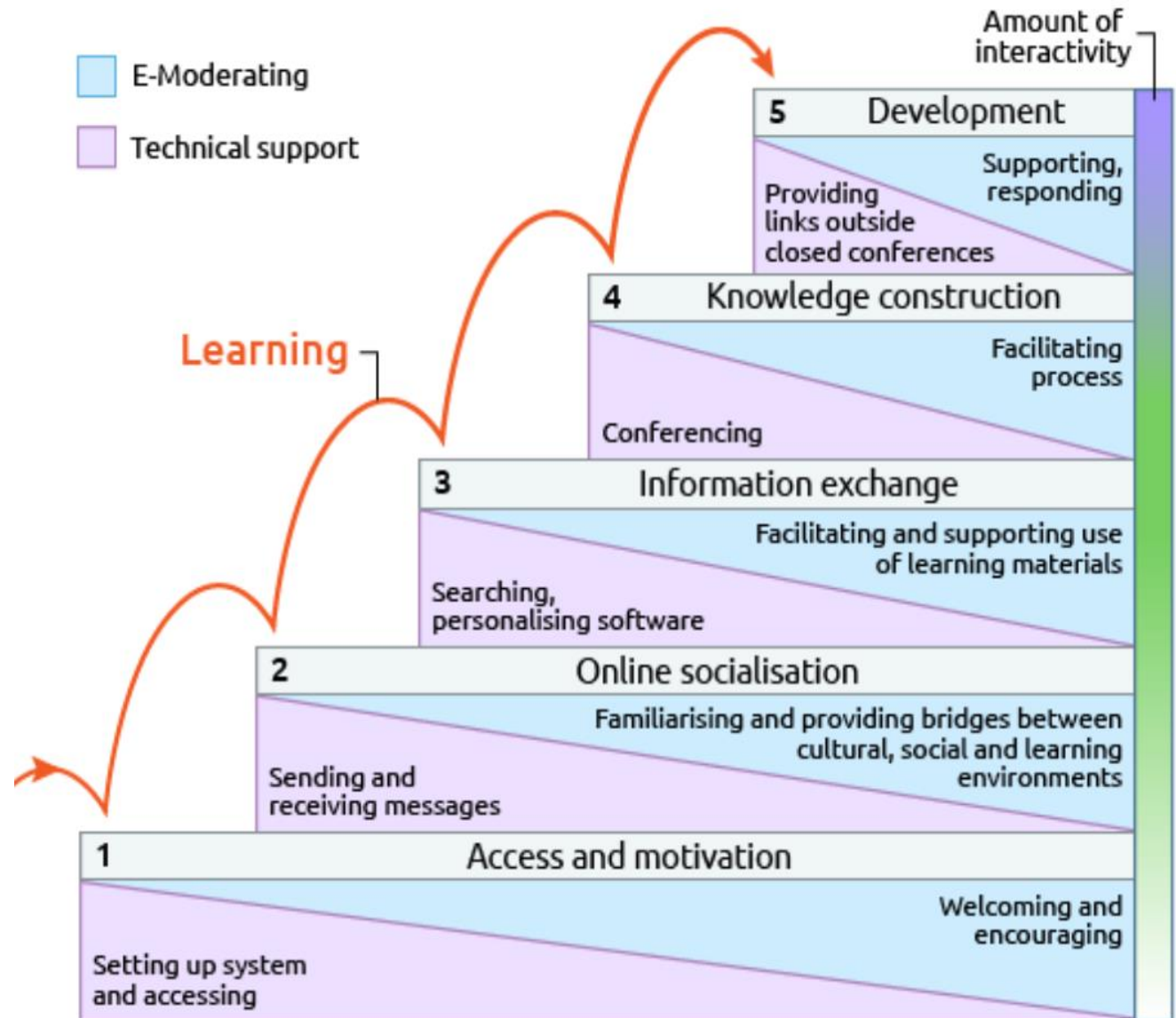Online learning systems

Summary

Concepts

Frameworks/ Models

Online learning systems

Summary

a) Identify educational goal/s

Experience of designers

b) **Postulate suitable tasks**

Appreciation of affordances to support tasks

c) **Determine affordance requirements of the tasks**

E-learning tools (input)

Considered resources

c) **Determine the affordances available** (given)

Synergistic consideration of available and required affordances

d) **E-learning task design**

- Bower 2008

Pedagogy should drive technology

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ Systems that enable students to learn through the internet from anywhere anytime

- Learning management systems

- social media platforms

- conferencing facilities

Concepts

Frameworks/ Models

Online learning systems

Summary

Mayende, G., Isabwe, G. M. N., Muyinda, P. B., & Prinz, A. (2015). *Peer Assessment Based Assignment to Enhance Interactions in Online Learning Groups.* **Paper presented at the International Conference on Interactive Collaborative Learning (ICL), 20-24 September 2015, Florence, Italy.**

- Bower 2008

Concepts

Frameworks/ Models

Online learning systems

Summary
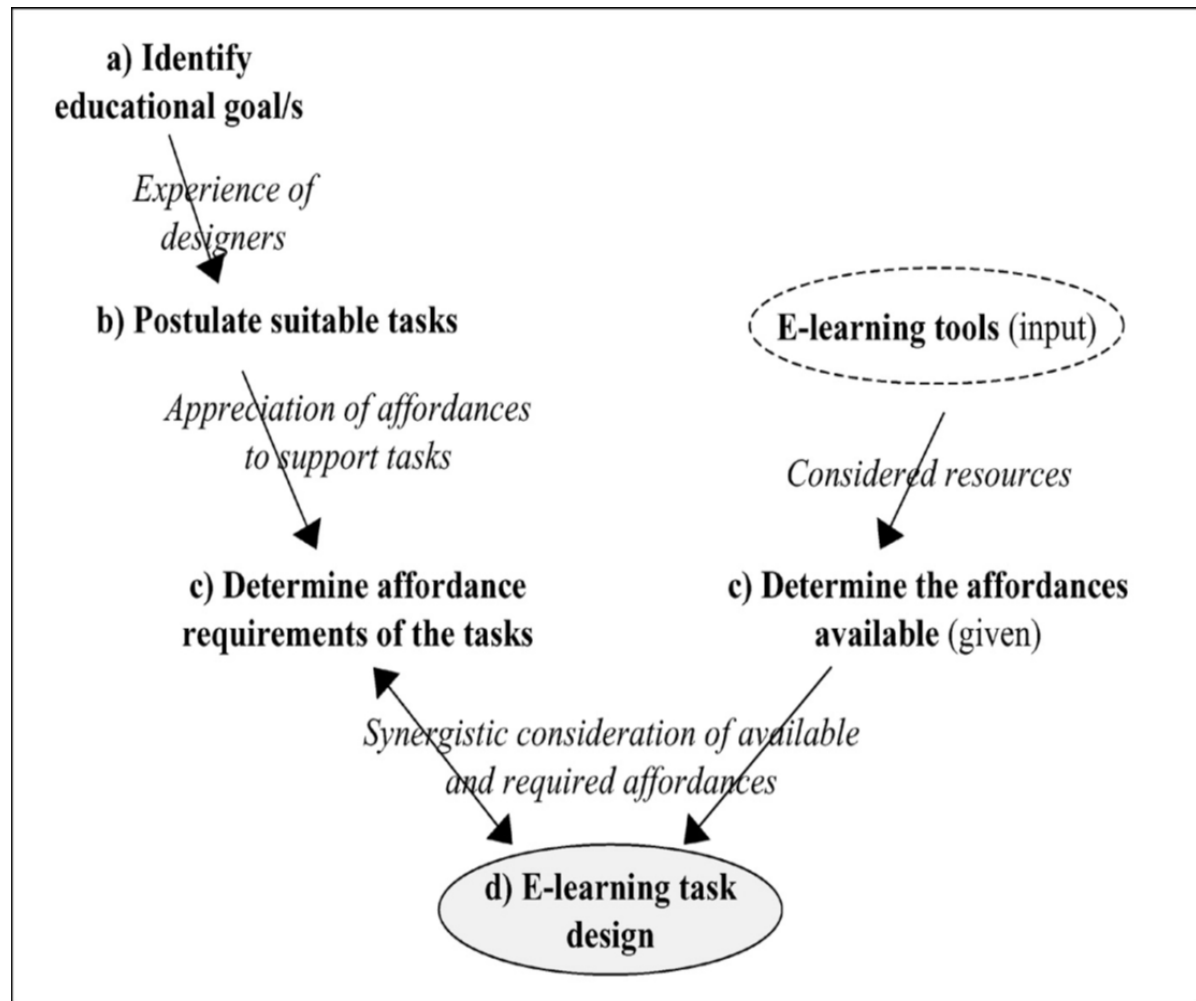
Educational challenge

❖ Distance learning programme

❖ non participation by individual group members in group activities.

Identify educational goal

❖ Goal: enhance interactions among students in learning groups

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ Arrange Self-created groups

❖ Identify paper and submit for approval

❖ Critically discuss the methodology used, identifying gaps and suggesting possibilities with references with the groups.

❖ Submit the initial answer to the group activity

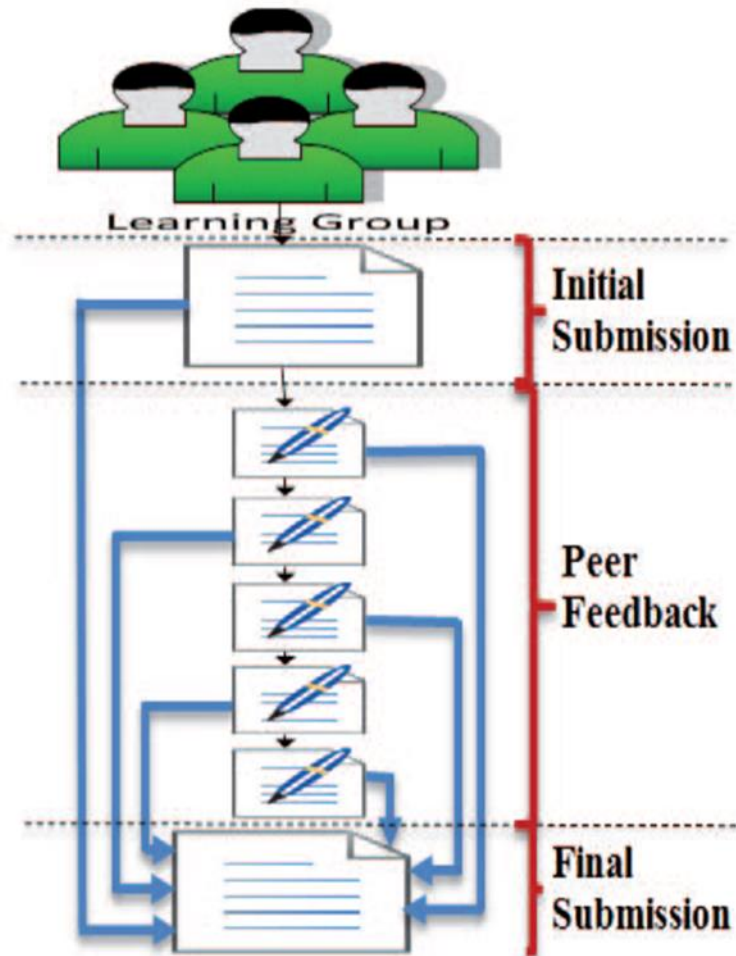❖ Provide Peer feedback to submissions

❖ Submit the final group assignment

Concepts

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Summary

Concepts

Frameworks/ Models

Online learning systems

Summary

Affordances		Affordance required by the Task	Affordances provided by the tool
		Enhancing Interaction	Facebook
Read-ability	Text		
View-ability	Image		
Listen-ability	Audio		
Watch-ability	Video		
Write-ability	Text		
Draw-ability	Images		
Speak-ability	Audio		
Video-produce-ability	Video		
Resize-ability	Increase and reduce size of elements		
Move-ability	Moving elements from one place to another		
Playback-ability	Played back		
Accessibility	Any time any where		

Example 2 – Determine affordance requirements of the tasks and tools

Concepts

Frameworks/ Models

Online learning systems

Summary

Affordances of the requirements of the task		Affordance required by the Task	Affordances provided by the tool
		Enhancing Interaction	**Facebook**
Record-ability	Recording		
Synchronous-ability	Synchronous versus asynchronous	■	■
Browse-ability	Move back and forward	■	■
Search-ability	Searching	■	■
Data-manipulation-ability	Sort and sequence	■	
Link-ability	Connecting to other pages	■	■
Highlight-ability	Highlight aspects of a resources	■	
Focus-ability	Direct attention of text	■	■
Combine-ability	Combining tools together		
Integrate-ability	Integrating		
Permission-ability	Capacity to allow or deny	■	■
Share-ability	Collaboration – one–one, one-many, many-many	■	■

Concepts

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Summary

Using Affordance Analysis e-Learning Design Methodology and based on the example I have illustrated above.
1. Work in groups of ….
2. Identify one educational challenge.
3. Identify the educational goal.
4. Postulate suitable tasks
5. Determine the affordance requirements for the task and tool.
6. Use the google link provided in the chat and type the answers in there.

Concepts

Frameworks/ Models

Online learning systems

Summary

- Video, audio, and text access
- Captioning for video

Resources

- Structure
- Joint Programming
- Joint editing of document
- Commenting

Activity

Assessment

Facilitation

- Auto feedback
- Auto detection of learning
- Auto grading

- Auto questioning
- Feedback and support
- Facilitator given summary

Reference

❖ Bower, M. (2008). Affordance analysis—matching learning tasks with learning technologies. Educational Media International, 45(1), 3-15.

❖ Biggs, J. (2003). Aligning teaching for constructing learning. Higher Education Academy, 1(4).

❖ Vygotsky, L. S. (1978). Mind in society: the development of higher psychological processes. Cambridge:: Harvard University Press.

Concepts

Need for multi-skilled learners

To solve different challenges in the field of work

Frameworks/ Models

Online learning systems

Summary

Concepts

Frameworks/ Models

Online learning systems

Summary

Using menti, mention any three concepts you learnt today.

Concepts

Frameworks/ Models

Online learning systems

Summary

❖ Pedagogy should drive technology
❖ The pedagogical considerations come up with require ments for the technology, while the technology comes with possibilities.
❖ The role of facilitation is also instrumental for effectively teaching and learning.
❖ Covid-19 has availed possibilities of testing blended / and online learning.