



Aligning ABC Learning Design with Moodle: Introducing the APT methodology

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The ABC Learning Design method

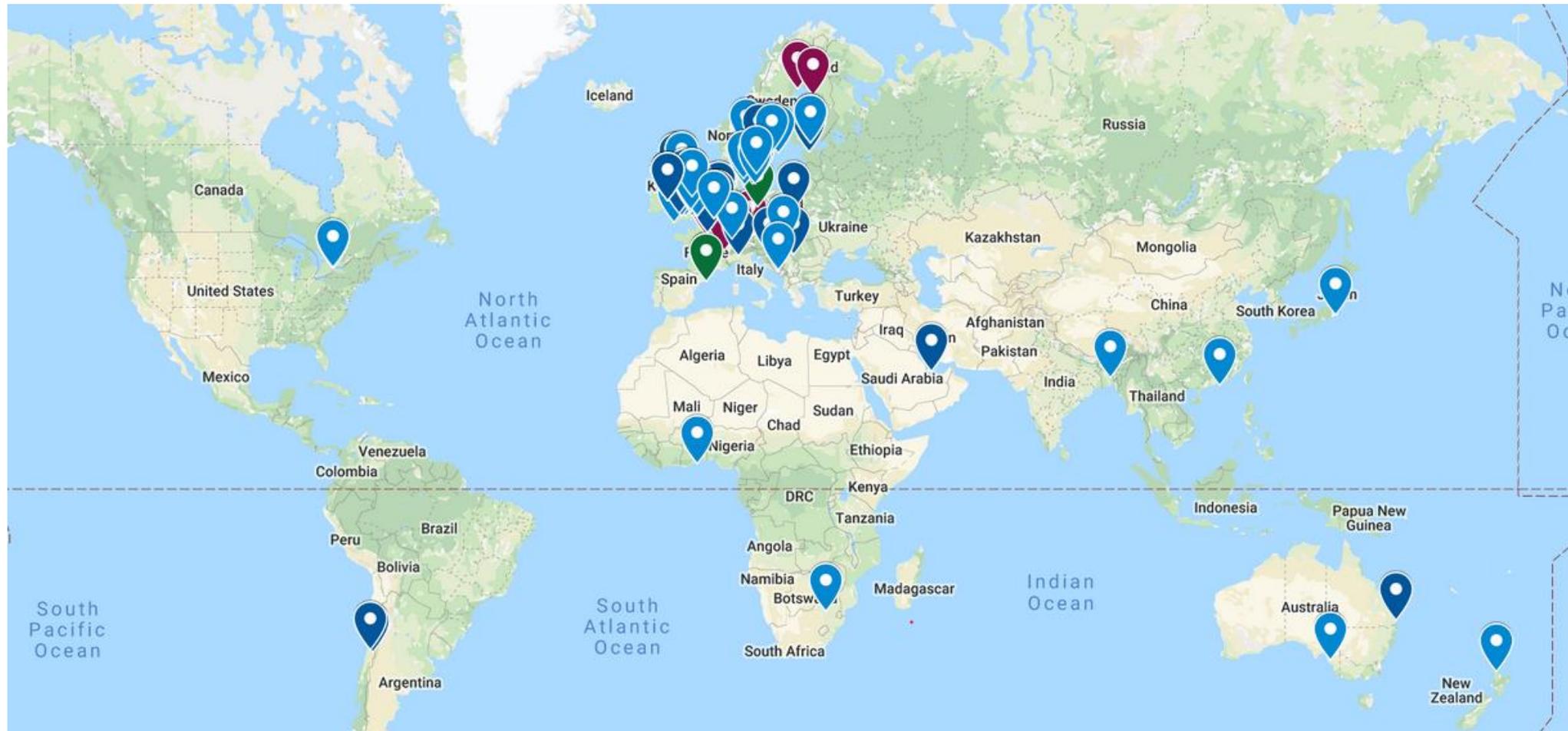
ABC - High-energy collaborative academic engagement workshop used with 1000+ UCL teachers since 2015



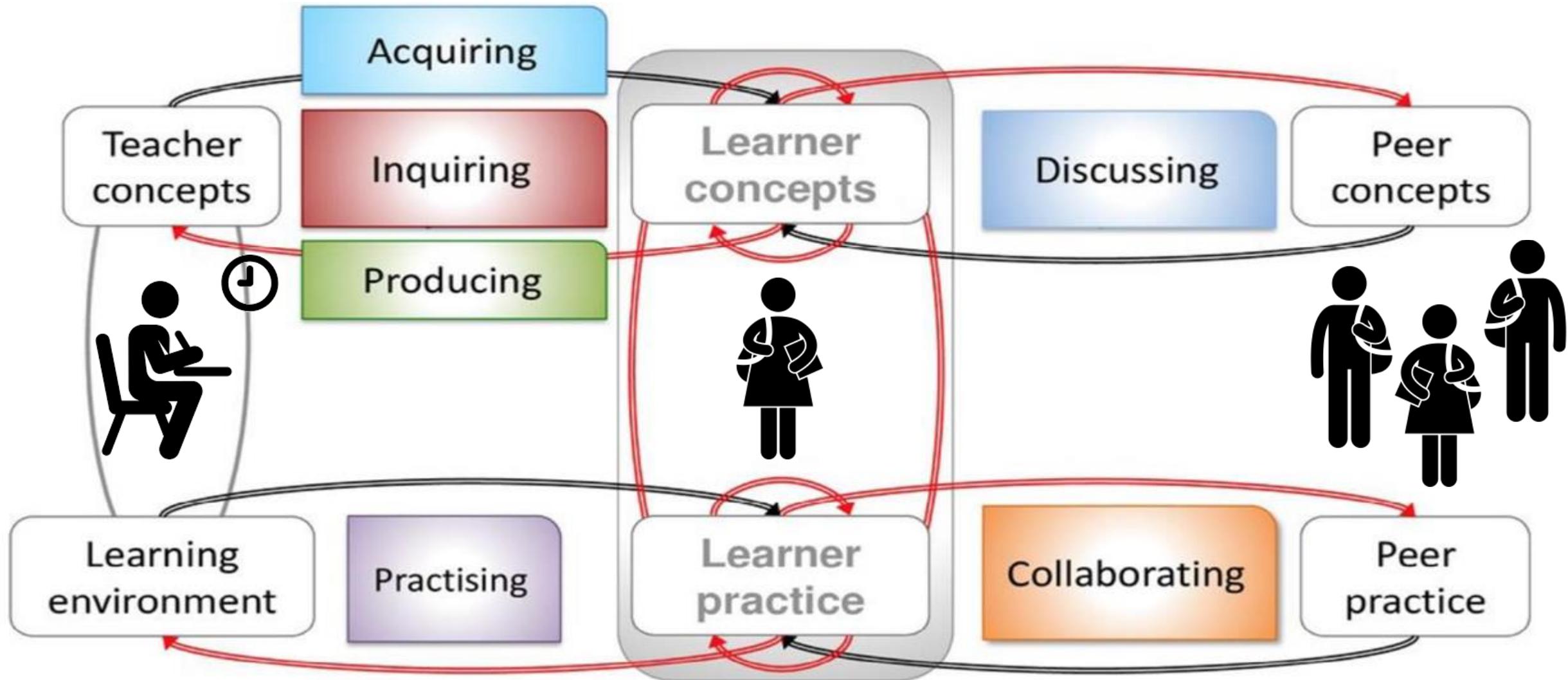
- fast
- student centred
- activity-based design
- conversational
- creative
- discipline-neutral
- consensus – shared vision
- narrative – storyboard
- modules, MOOCs, short courses
- based on theory



The ABC international community: A global phenomenon!



Conversational Framework / 6 Learning Types



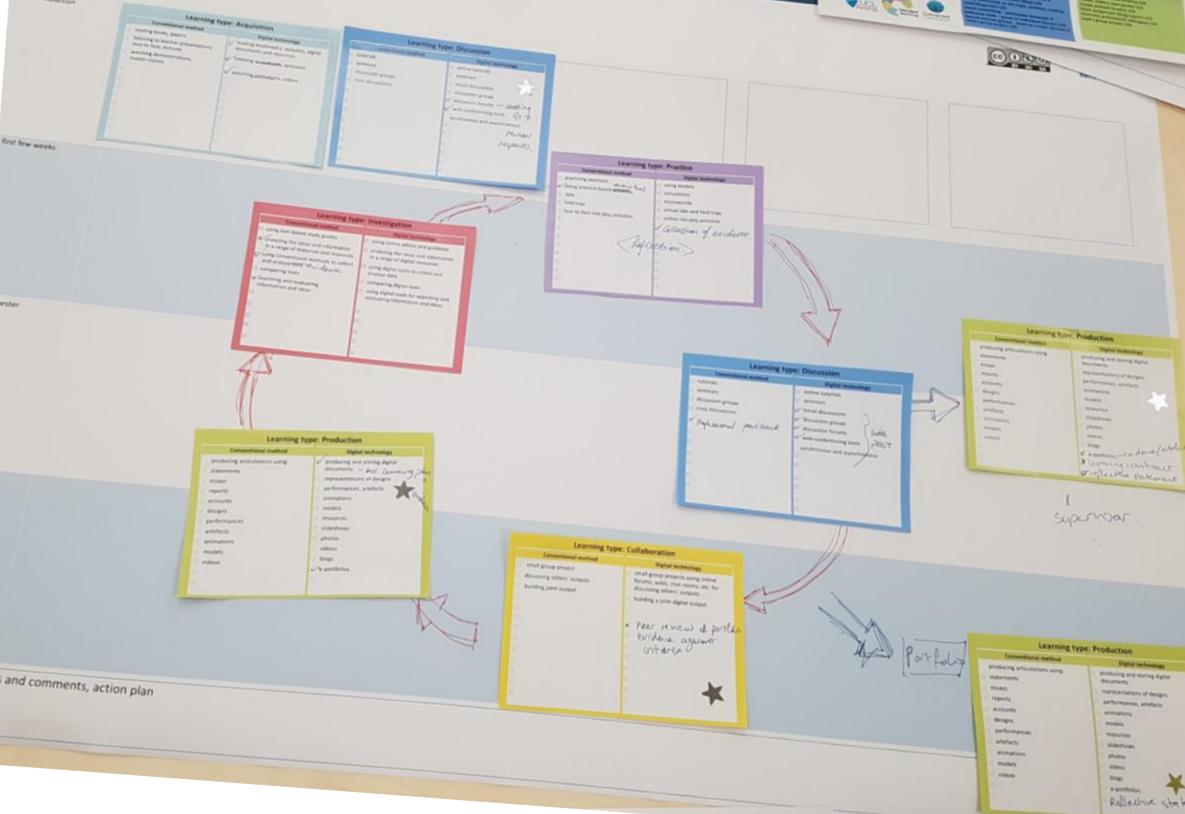
How does ABC work?



End product



ABC (Arena Blended Connected) curriculum design



comparing texts
 searching and evaluating information and ideas
 ✓ mark assign
 ★
 6

discussing others' outputs
 building joint output
 ★

forums, wikis, chat rooms, etc. for discussing others' outputs
 building a joint digital output

Learning type: Collaboration

Conventional method	Digital technology
<ul style="list-style-type: none"> small group project discussing others' outputs building joint output ✓ work-based project 	<ul style="list-style-type: none"> small group projects using online forums, wikis, chat rooms, etc. for discussing others' outputs building a joint digital output

Learning type: Investigation

Conventional method	Digital technology
<ul style="list-style-type: none"> using text-based study guides analysing the ideas and information in a range of materials and resources 	<ul style="list-style-type: none"> using online advice and guidance ✓ analysing the ideas and information in a range of digital resources

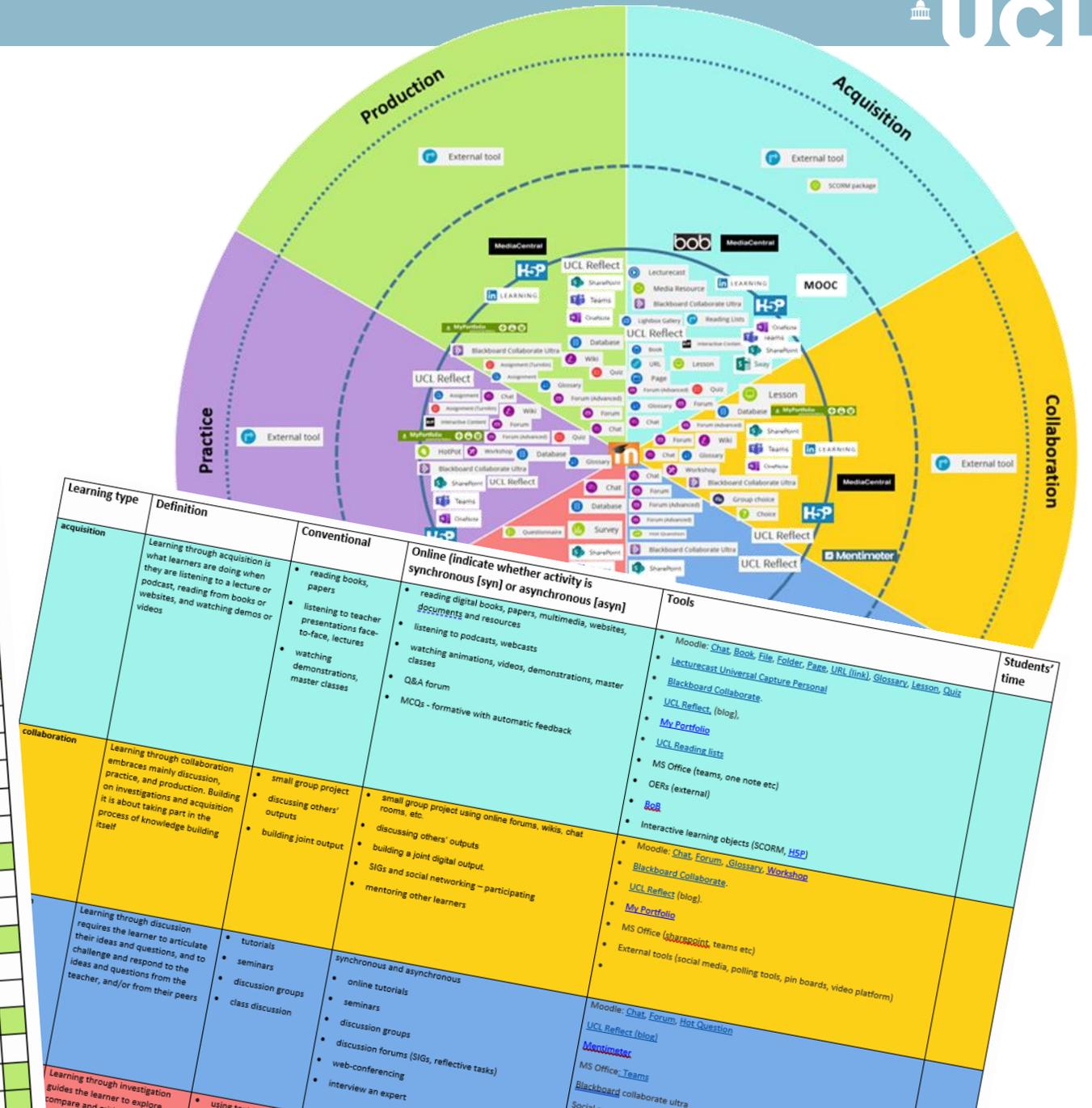
Learning type: Production

Conventional method	Digital technology
<ul style="list-style-type: none"> producing articulations using: statements reports performances artefacts animations models videos blogs podcasts 	<ul style="list-style-type: none"> producing and storing digital documents representations of designs performances, artefacts

Mapping with Tech

Learning Types and UCL Moodle tools

ACTIVITIES		Ac	Co	DI	In	Pa	Po
Assignment	Assessment						
Assignment (Turnitin)	Assessment						
Attendance	Record attendance						
Blackboard Coll.	Virtual classroom						
Chat	'Live' (or asynchronous) text discussion						
Checklist	To-do list						
Choice	Simple poll						
Custom certificate	PDF certificate						
Database	Collect and search records						
External tool	Link out to external tools						
Feedback	Simple survey						
Forum	Asynchronous (usually) text discussion						
Forum (Advanced)	Asynchronous (usually) text discussion						
Glossary	Collaborative dictionary						
Group choice	Students select study groups						
Hot Question	Students submit and vote on questions						
HotPot	Interactive exercises produced externally						
Interactive Content (H5)	Interactive tasks produced inside Moodle						
Lecturecast	Asynchronous recordings.						
Lesson	Structured paths for learning						
MATLAB Grader	Include <u>Matlab</u> exercises						
Media Resource	Include Media						
Questionnaire	Survey tool						
Quiz	Check progress and learning						
Reading Lists	Link to digital library resources						
Scheduler	Arrange meetings and 'office hours'						
SCORM package	Interactive elements produced externally						
Survey	Survey students' learning						
	Compare web pages collaboratively						



Introducing the APT methodology: (Alignment of Pedagogy and Technology)

- A structured way of thinking about a digital educational ecosystem designed to align the needs of teachers and learners with the affordances of digital technologies
- Aims to find which digital technologies are most "apt"
- New definition of affordance

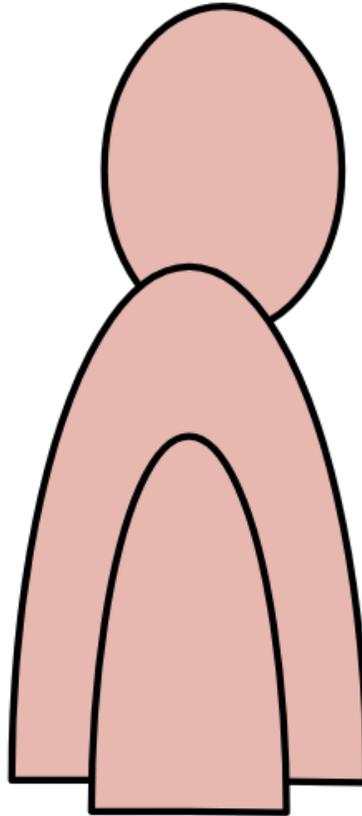


Affordance (according to Gibson)

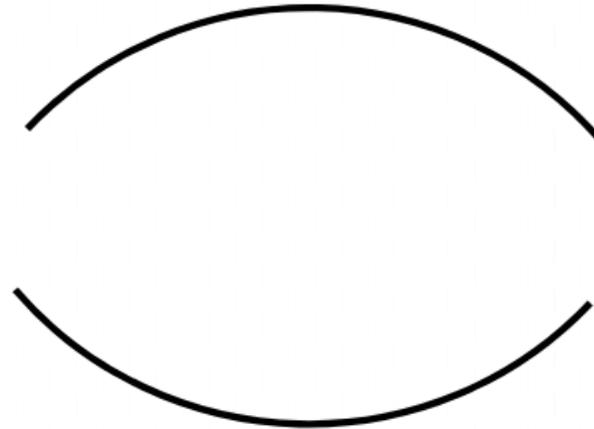
"The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill."

Gibson (1979)

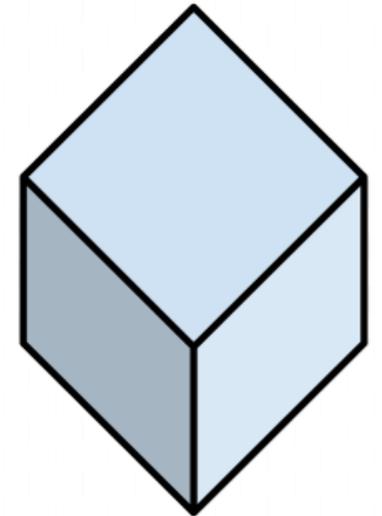
Intention



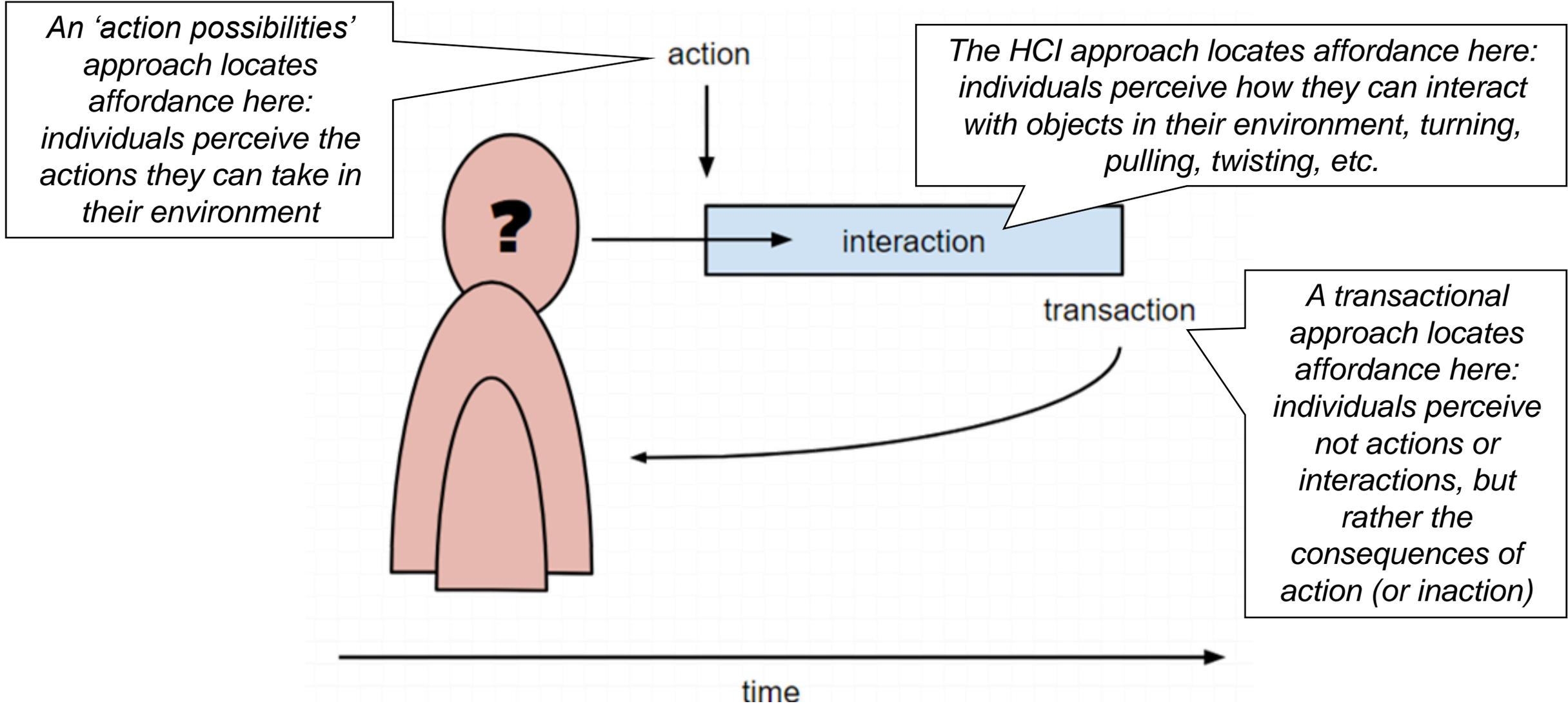
Affordance



Invariant

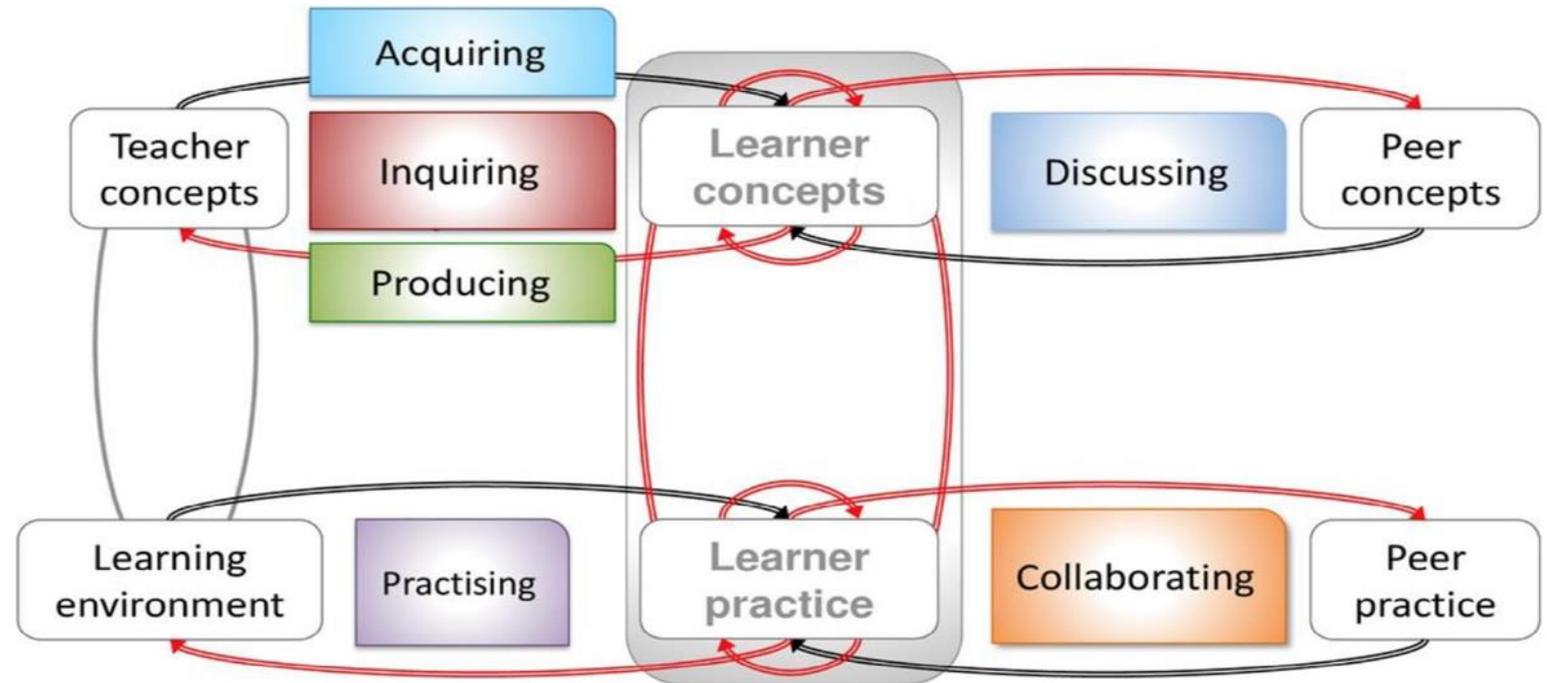


Affordance as 'transaction possibilities'



How does the APT methodology work?

- Choose a theoretical framework
- Identify 10 key words to describe each 'dimension' of the framework
- Rate affordances of relevant technologies



Applying the APT Methodology to align Moodle Activities & Resources with Laurillard's Learning Types							V3, RMO, August 2022
The APT methodology, where APT is shorthand for the Alignment of Pedagogy and Technology, is a structured way of thinking about the differing components within a digital educational ecosystem, using principles from ecological psychology, designed to align the needs of teachers and learners with the affordances of digital technologies (where affordances are defined as the transaction possibilities between an actor and their environment).							
Moodle Activity or Resource vs Learning Type	Acquiring	Inquiring	Discussing	Practicing	Collaborating	Producing	
The ten keywords (action verbs) on the right aim to capture the essence of each learning type	listen, read, watch, observe, attend, acquire, digest, follow, consume, perceive	explore, interpret, investigate, navigate, collate, analyse, compare, collect, search, evaluate	propose, explain, articulate, question, respond, debate, discuss, critique, consider, argue	practice, verify, imitate, reflect, predict, edit, model, simulate, test, experiment	agree, negotiate, visualise, draft, produce, group, share, collaborate, discuss, cooperate	perform, prove, consolidate, create, design, invent, write, record, draw, compose	
Assignment	4	0	0	1	3	10	
Board	9	6	7	5	8	10	
Book	8	4	3	5	4	0	
Chat	5	3	10	0	5	2	
Checklist	4	3	5	1	0	2	
Database	9	7	6	4	3	10	
Forum	6	6	10	4	7	10	
Glossary	5	10	4	3	2	2	
Hot Question	4	6	8	2	3	1	
H5P	9	8	10	10	2	4	
Lesson	9	6	3	4	0	0	
Links, Files & Folders	6	4	0	1	0	0	
Page	8	5	3	1	0	0	
Quiz	4	1	5	6	0	4	
Wiki	8	10	10	7	10	10	
Workshop	9	7	6	7	4	10	
TOTAL	107	86	90	61	51	75	

Creating 'Tech Trumps' for Moodle

- Top Trump style
- How well each Moodle activity and resource aligns with Laurillard's six learning types
- Highly practical and easy-to-use method for aligning an ABC learning design with specific Moodle activities and resources
- <http://techtrumps.co.uk/ucl/>



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Questions / Collaborations

Next Steps:

- ABC in your context?
- Validating the APT methodology
- Expanding the range of digital tools

Resources:

- ABC Learning Design @ UCL
<https://blogs.ucl.ac.uk/abc-ld/>
- Moodle Academy ABC
<https://moodle.academy/course/view.php?id=14>
- Learning Designer
<https://www.ucl.ac.uk/learning-designer/>
- Tech Trumps
<http://techtrumps.co.uk/ucl/>

References

Gibson, J. J., (1979) *The Ecological Approach to Visual Perception*. Houghton Mifflin Harcourt (HMH), Boston.

Laurillard, D., (2013) *Teaching as a design science: Building pedagogical patterns for learning and technology*. Routledge, London.

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