Asynchronous Learning in a Virtual Environment: Part 1

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Content

- What is asynchronous learning?
- Essentials for the development of asynchronous learning
- Asynchronous case based learning
  - Acceleration of its use in the context of the pandemic
  - Interface and content
  - Ways of encouraging interaction
  - Sourcing of material
What is asynchronous learning?

- Refers to forms of learning that do not require students and tutors to be online simultaneously.

- Includes a range of teaching and learning tools ranging from ‘electronic notes’ and ‘lecture capture’ to highly interactive, multimedia platforms.

**Advantages**

- Self-paced and flexible
- No requirement for teaching space
- Comes in a variety of forms – allows for different modes of learning
- Allows the student time for deeper reflection

**Disadvantages**

- Requires self-discipline
- No immediate feedback
- Loss of a sense of connection
- More difficult for the teacher and the student to monitor progress.
Essentials for the Development of Asynchronous Learning

- Central repository of information eg Moodle, Blackboard
  - Includes all relevant course content, materials and the tools/resources.
  - Should be flexible and accessible for students and teachers (laptop, mobile)
  - Clearly defines self-paced versus those linked to live (synchronous) activities.
  - Content should be curated regularly to avoid ‘clutter’ and confusion.

- Coherent narrative to guide students and foster a ‘spirit of enquiry’
  - State the intended learning objectives- they are a roadmap for students
  - Identify multimedia material relevant to the objective
  - Allow sufficient time within the curriculum
  - Encourage interaction eg knowledge checks, online quizzes, reflection
  - Establish effective communication between the teacher(s) and students
Asynchronous Case Based Learning

March 23rd 2020:

- Year 5 Psychiatry placements at UCL were cancelled and the team were asked to create a virtual placement from a standing start.
  - Brief tutorial given on how to embed case scenarios into an interactive multimedia platform, Rise 360.
  - Individual lessons created on a range of topics
    - Psychosis, affective disorders, anxiety, OCD, suicide awareness, dementia, CAMHS.
  - Each session included a written or recorded narrative
    - Learning outcomes – linked to curriculum map
    - Related resources – lectures, podcasts
  - Video material embedded
    - Students asked to watch and take notes as they would be asked a series of questions on key aspects of the history, key symptoms, diagnosis, risk assessment
Asynchronous Case Based Learning

- Interaction encouraged in several ways
  - Mental State Examination Checklist - student completes and submits online before seeing a model answer
  - 3 x 4 table to facilitate reflection on the predisposing, precipitating, perpetuating and preventative factors - biopsychosociocultural perspective.
  - Flip cards to encourage the student to consider the answer first
  - Multiple choice and free text answer questions - used to test knowledge throughout.
  - Interactive panels with links to videos, podcasts, NICE guidance, Stepped Care principles.
  - Live Q&A timetabled within a week - students posted questions ahead of time
Sourcing relevant material

- Video material - sourced from YouTube
- Included material developed by Universities, supplemented by free on-line resources developed by mental health charities, independent bloggers, Animated Minds
- Material chosen to ensure that learning objectives were met, including stigma, diversity and equality, multidisciplinary team working, and least restrictive care:
  - ‘Psychiatric Interviews for Teaching: Anxiety’ University of Nottingham.
  - ‘General Adult Psychiatry History Panic Disorder. Oxford University
  - ‘OCD patient interview’- Keystone Clinical Studios
  - ‘Simon says: Psychosis!’ - Sussex Partnerships NHS Trust
- Other material eg Geeky Medics, Podcast medics, NICE guidance
Let’s look more closely at the scope of multimedia and digital learning
Asynchronous Learning in a Virtual Environment: Part 2

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Content

- Multimedia in virtual learning
- Digital learning
- Films, music and media
- Gaming
- Artificial Intelligence
Using multimedia

- Choice of learning management systems
- Creating multimedia content
- Alignment and integration of multimedia content
- Evoking curiosity
- Adding levels of curiosity and complexity
Using multimedia

- Audio recording
- Video recording
- Producing video clips
- Adding captions
- Editing, storing and transferring multimedia content
- Reusing multimedia content
Effective implementation of virtual multimedia teaching

Web based multimedia instruction (WBMI)

- Schedule time for WBMI in the curriculum
- Communicate reasons for using WBMI
- Link WBMI modules with face-to-face activities
- Maximize learner control and agency
- Feedback - sufficient, timely and appropriate
- Balance interactivity with cognitive load
- Curate - only essential material
- Appropriate for learner's developmental stage
- Engage in quality monitoring and improvement
- Identify and address technical barriers
- Familiarise teachers with WBMI materials, address concerns and assumptions
- Ensure WBMI is part of the curriculum and assessment
Role of films and media

- Useful for teaching psychopathology, differential diagnosis, different perspectives, stigma and transcultural themes
- Practical considerations
- Teaching format
- Virtual film clubs

- Music
- Books
- Arts
Digital learning

- Transition from traditional methods to virtual learning
- Personalized learning
- Supplement traditional learning
- Disadvantages and barriers
- Tips to overcome limitations
- Measuring outcome and feedback
Gaming

- Underused medium of learning
- Unique symbolic, sensory and emotional value
- Serious gaming and gamification
- Fun element
- Advantages/disadvantages
- Practical considerations for educators and developers
Artificial Intelligence

Role of AI
- Helps system to adapt to learners in a dynamic manner
- Improves quality of learning
- Reduce time taken to learn

Role in psychiatry
- Natural language processing
- Integration of natural biomarkers

Big data and algorithms
Acknowledgements

- Introduction to asynchronous learning - Prof. Suzanne Reeves and Dr. Seri Abraham
- The role of multimedia in asynchronous learning - Dr. Seri Abraham and Prof. Suzanne Reeves
- How Films and Media Can Be Used to Teach Psychiatry Virtually - Claire Fischer and Ratnu Vaidya
- How do medical students learn digitally? - Ratnu Vaidya and Deepika Sharma
- Virtual Case based learning - Vikram Hackett, Toozy Nanda, Adeola Akinola and Seri Abraham
- Virtual Reflective Learning - Toozy Nanda, Vikram Hackett, Adeola Akinola and Seri Abraham
- Gaming and psychiatric education - Chun Chiang Sin Fai Lam and Stephen Kaar
- Artificial Intelligence in Psychiatric Education - Prof. Benedict du Boulay
Key references

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Thank you!