ENHANCING COGNITIVE ACCESSIBILITY FOR A NEW, FULLY ONLINE MA GRAPHIC DESIGN

PGCERT ACADEMIC PRACTICE ANTONIA HUBER

MY TEACHING CONTEXT FOR THE INTERVENTION

- Currently shifting from residental setting to fully online
 MA course
- I am solely responsible for development of teaching content
- Moodle and media production done by UAL Online and external stakeholders

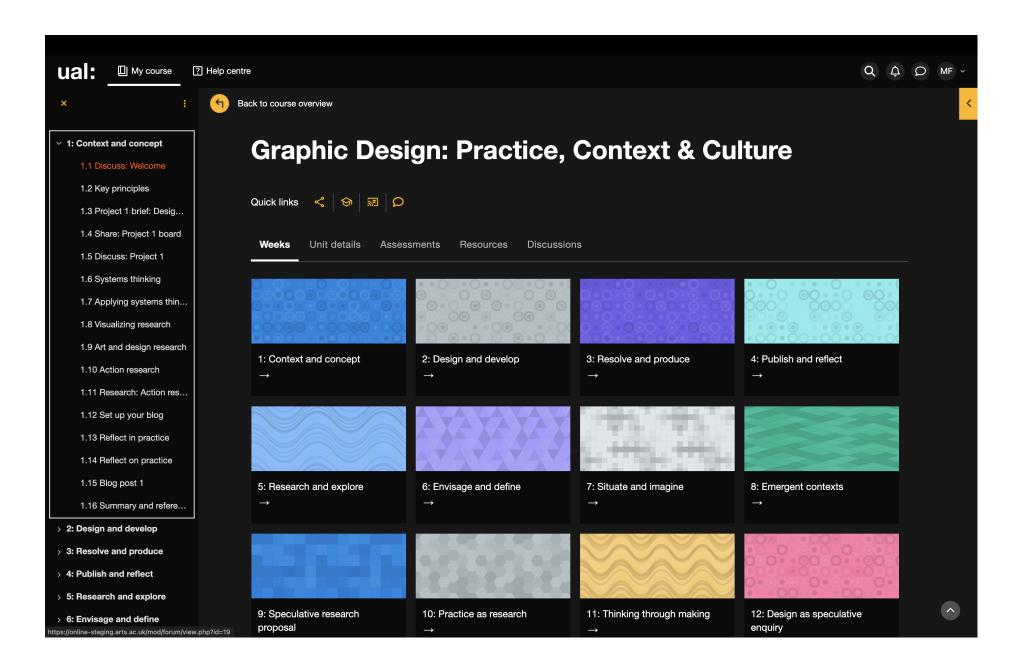
RATIONALE

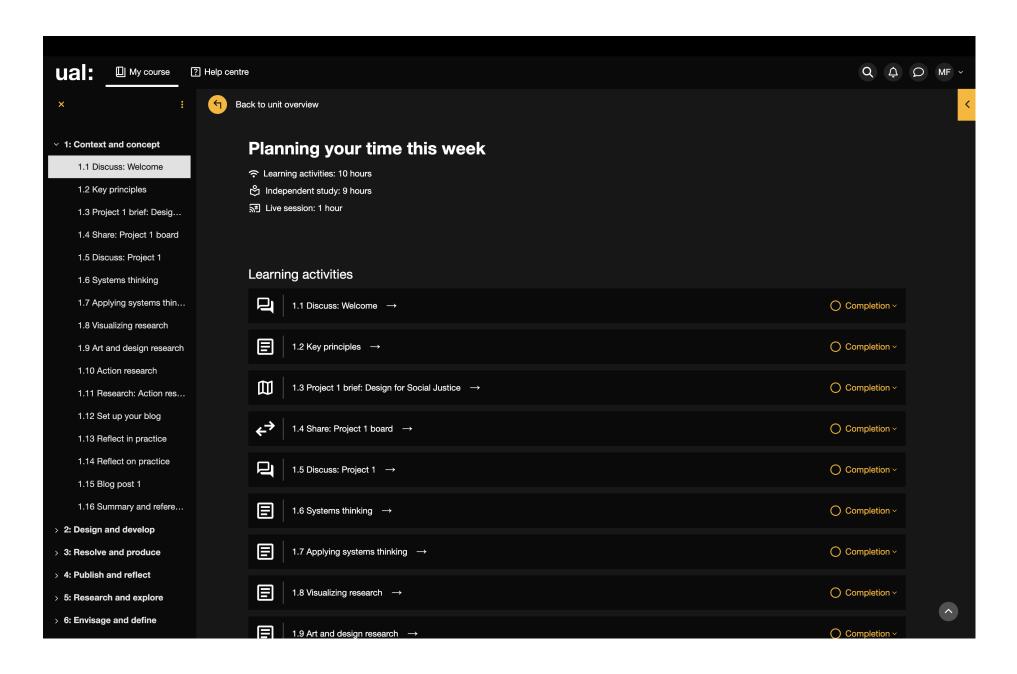
Identified Barriers:

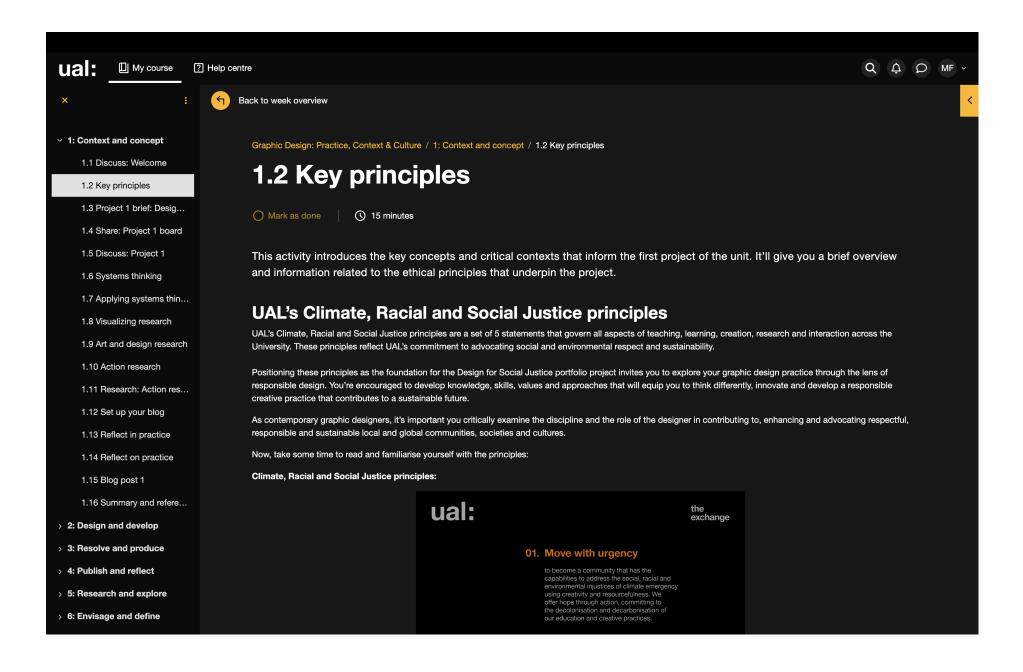
- Overuse of complex language and academic jargon
- Design solely based on black and white interface
- Very text-heavy with little supportive visual material
- Limited interactive elements (espec. for peer reviews)
- No support for neurodivergent students (auditive learner, deaf students, visually impaired, ADHD, dyslexia...)

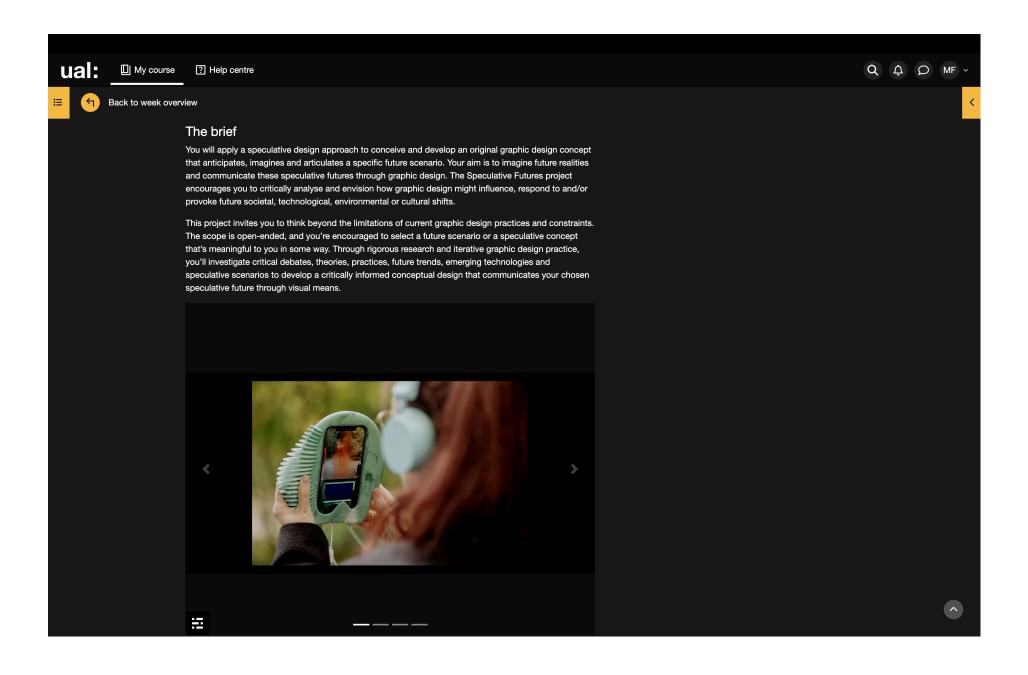
Inclusive Aim:

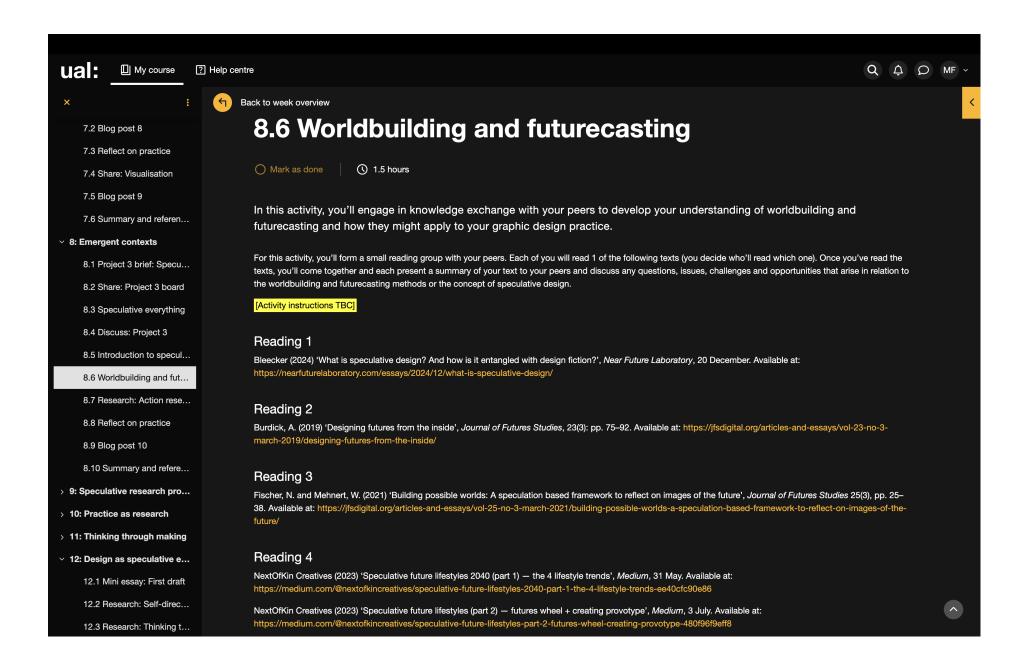
- Accessibility benefits all learners, not just those with specific needs









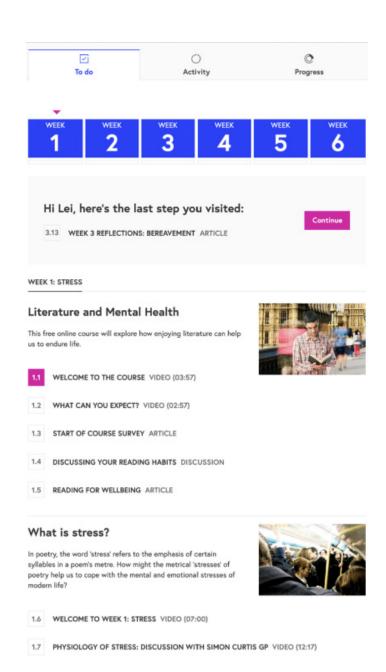


INTERVENTION DESIGN

- Rewriting and redesigning one week's worth of course content using the framework
- Investigating into APIs for accessibility features:
 - 1. Al-powered audio fuctionality plug-in
 - 2. Bright mode option (inverting colours)
 - 3. Integration of more logical and engaging visual hierarchy (using type and colour)
 - 4. Plug-in for sign language translator
 - 5. Interactive glossary for discourse-specific jargon
 - 6. Simplified language and introduction of bullet points

BENCHMARKING

University of Warwick, Literature and Mental Health course, provided by FutureLearn platform.



RESOURCES

Universal Design for Learning (UDL)

The Universal Design for Learning Guidelines

The goal of UDL is learner agency that is purposeful & reflective, resourceful & authentic, strategic & action-oriented.

Design Multiple Means of **Engagement**



Design Multiple Means of **Representation**



Design Multiple Means of Action & Expression



Design Options for

Welcoming Interests & Identities

- · Optimize choice and autonomy
- Optimize relevance, value, and authenticity
- · Nurture joy and play
- · Address biases, threats, and distractions

Design Options for

Perception

- Support opportunities to customize the display of information
- Support multiple ways to perceive information
- Represent a diversity of perspectives and identities in authentic ways

Design Options for

Interaction

- Vary and honor the methods for response, navigation, and movement
- Optimize access to accessible materials and assistive and accessible technologies and tools

Design Options for

Sustaining Effort & Persistence

- Clarify the meaning and purpose of goals
- · Optimize challenge and support
- Foster collaboration, interdependence, and collective learning
- Foster belonging and community
- · Offer action-oriented feedback

Design Options for

Language & Symbols

- Support decoding of text, mathematical notation, and symbols
- Cultivate understanding and respect across languages and dialects
- Address biases in the use of language and symbols
- Illustrate through multiple media

Design Options for

Expression & Communication

- · Use multiple media for communication
- Use multiple tools for construction, composition, and creativity
- Build fluencies with graduated support for practice and performance
- Address biases related to modes of expression and communication

Design Options for

Emotional Capacity

- Recognize expectations, beliefs, and motivations
- · Develop awareness of self and others
- Promote individual and collective reflection
- · Cultivate empathy and restorative practices

Design Options for

Building Knowledge

- · Connect prior knowledge to new learning
- Highlight and explore patterns, critical features, big ideas, and relationships
- Cultivate multiple ways of knowing and making meaning
- · Maximize transfer and generalization

Design Options for

Strategy Development

- · Set meaningful goals
- Anticipate and plan for challenges
- Organize information and resources
- Enhance capacity for monitoring progress
- · Challenge exclusionary practices

CAST Until learning has no limits°

udlguidelines.cast.org © CAST, Inc. 2024

Suggested Citation: CAST (2024). Universal Design for Learning Guidelines version 3.0 [graphic organizer]. Lynnfield, MA: Author.

RESOURCES

Association for Learning Technology

Framework for Ethical Learning Technology (FELT)

Awareness

- Respect the autonomy and interests of different stakeholders
- Be mindful, reflective and reflexive
- Think critically about your practice and consider the wider environment(s) you can influence
- Recognise the limits of one's own knowledge and the possibility of unconscious bias

Care and Community

- Practice care of oneself and others
- Promote collegiality and mutual understanding
- Minimise the risk of harms
- Recognise responsibilities and influence beyond your institution
- · Share and disseminate best practice



Association for Learning Technology (ALT) 2021 go.alt.ac.uk/EdTechEthics

Professionalism

- Demonstrate accountable, evidence-led practice
- Commit to ongoing professional development and enhancing your skills
- Act with integrity and honesty
- Ensure practice complies with relevant laws and institutional policies
- Apply knowledge and research to advocate for and enhance ethical approaches

Values

- Support the agency and development of learners
- Promote fair and equitable treatment, enhancing access to learning
- Develop learning environments that are inclusive and supportive
- · Celebrate diversity as a route to innovation
- Design services, technologies to be widely accessible
- Be accountable and prepared to explain decision-making
- Be as open and transparent as is appropriate

RESOURCES

An opportunity to consider supporting literature – Cinquin, P.-A., Guitton, P. and Sauzéon, H. (2019). Online e-learning and cognitive disabilities: A systematic review. Computers & Education, 130, pp.152–167.

Have you considered the MOOCs approaches? – Cinquin, P.-A., Guitton, P. and Sauzéon, H. (2020) 'Designing accessible MOOCs to expand educational opportunities for persons with cognitive impairments', Behaviour & Information Technology, 40(11), pp. 1101–1119.

This is an opportunity to contextualise your approach with insights from an existing study - Seymour, M., 2024. Enhancing the online student experience through the application of Universal Design for Learning (UDL) to research methods learning and teaching. Education and Information Technologies, 29(3), pp.2767-2785.

What are some of the influencing factors? - Lasekan, O.A., Pachava, V., Godoy Pena, M.T., Golla, S.K. and Raje, M.S., 2024. Investigating factors influencing students' engagement in sustainable online education. Sustainability, 16(2), p.689.

EVALUATION STRATEGY

Survey and / or reflective discussion with

- students
- colleagues
- general public
- academic support specialists

RISKS AND BARRIERS

- Plain language may be perceived as oversimplification
- Institutional resistance and lack of buy-in
- Budget and time constraints
- Limited student engagement in valuation phase
- Lack of expertise in accessibility design
- Technical constraints of Moodle
- Limited integration of other platforms (Padlet / Miro)

LEGACY PLAN

- Practical guide for accessible content design
- Scalable resource for future course iterations
- Model for inclusive online education within UAL