FUEL4 DESIGN



FUTURES LITERACY METHODS











FUTURES LITERACY METHODS





















FUTURES LITERACY METHODS

The main aim of Futures Literacy Methods is to transform and convey <u>FUEL4Design</u> outcomes into learning processes.

Learning Future Literacies Methods concerns both the preparation of a complete Futurist Designer training course and the design of small Independent Learning Units to cross breed design studios or speculative/ theoretical courses. The Units are specifically created to cater to the needs of future literacy and geared to acquire knowledge on anticipatory practice, critical future design and future making through the dedicated tools.

This booklet presents one orientation unit (Unit 00) and ten educational content Units (Unit 01 to 11). In the first section of this booklet, there are a set of "Maps" and paths to help educators in navigating through the eleven Units. These maps are meant to be used as suggestive paths rather than prescriptive ones. The basic concept behind these units is to be independent (yet connected). Educators are free to select the suitable units to their courses, put them together and structure their pedagogical paths based on their needs as well as the context of use.

In each Unit, there is a section for the tools and devices. These are tools and devices developed or assembled during the <u>FUEL4Design</u> project. They play an important role in supporting and facilitating the pedagogical process. Each of these tools or devices is linked to the <u>FUEL4Design</u> website, where you can further read about them.

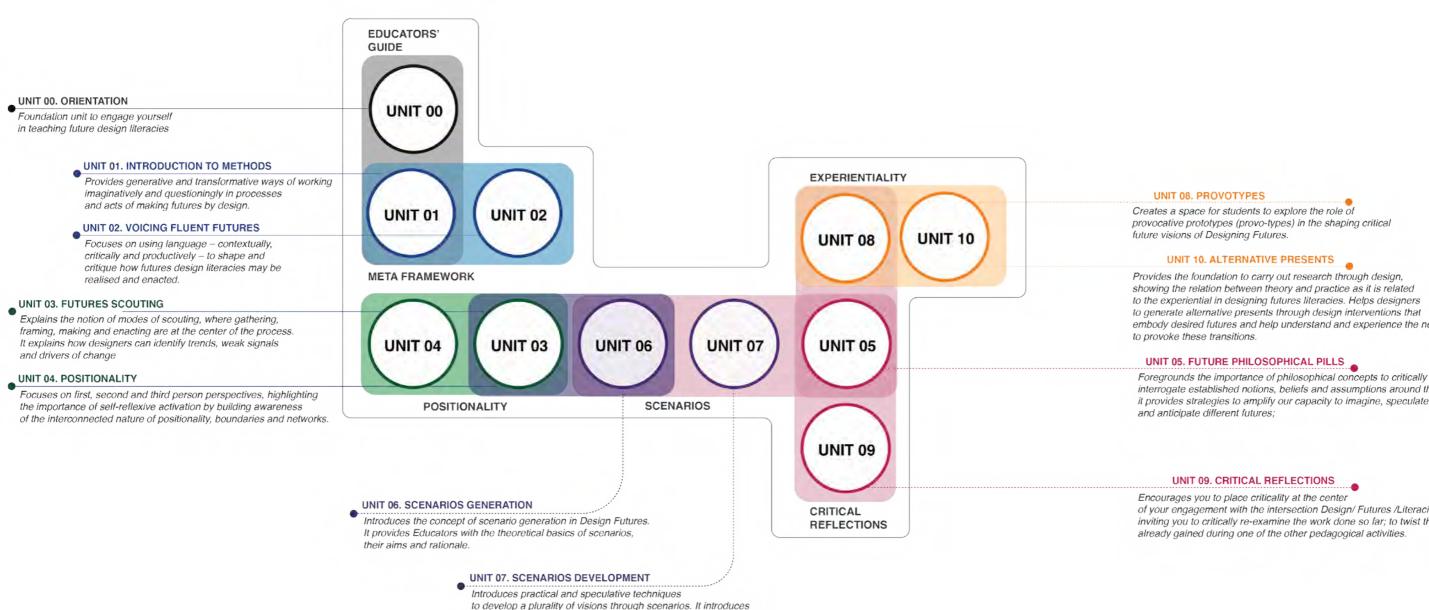
FUEL4DESIGN

INDEX

INTRODUCTION	04
ROAD-MAP AND PATHS	08
UNIT 00	14
ANNEXES	24

EDUCATORS' GUIDE TO FUTURES LITERACIES METHODS AND METHODOLOGIES THE ROAD-MAP

Connections and overlaps between the units



the tools to understand how to implement, use and

narrate design scenarios.

Creates a space for students to explore the role of provocative prototypes (provo-types) in the shaping critical

Provides the foundation to carry out research through design, showing the relation between theory and practice as it is related to the experiential in designing futures literacies. Helps designers to generate alternative presents through design interventions that embody desired futures and help understand and experience the needs

interrogate established notions, beliefs and assumptions around the future; it provides strategies to amplify our capacity to imagine, speculate

Encourages you to place criticality at the center of your engagement with the intersection Design/ Futures /Literacies. inviting you to critically re-examine the work done so far; to twist the perspective

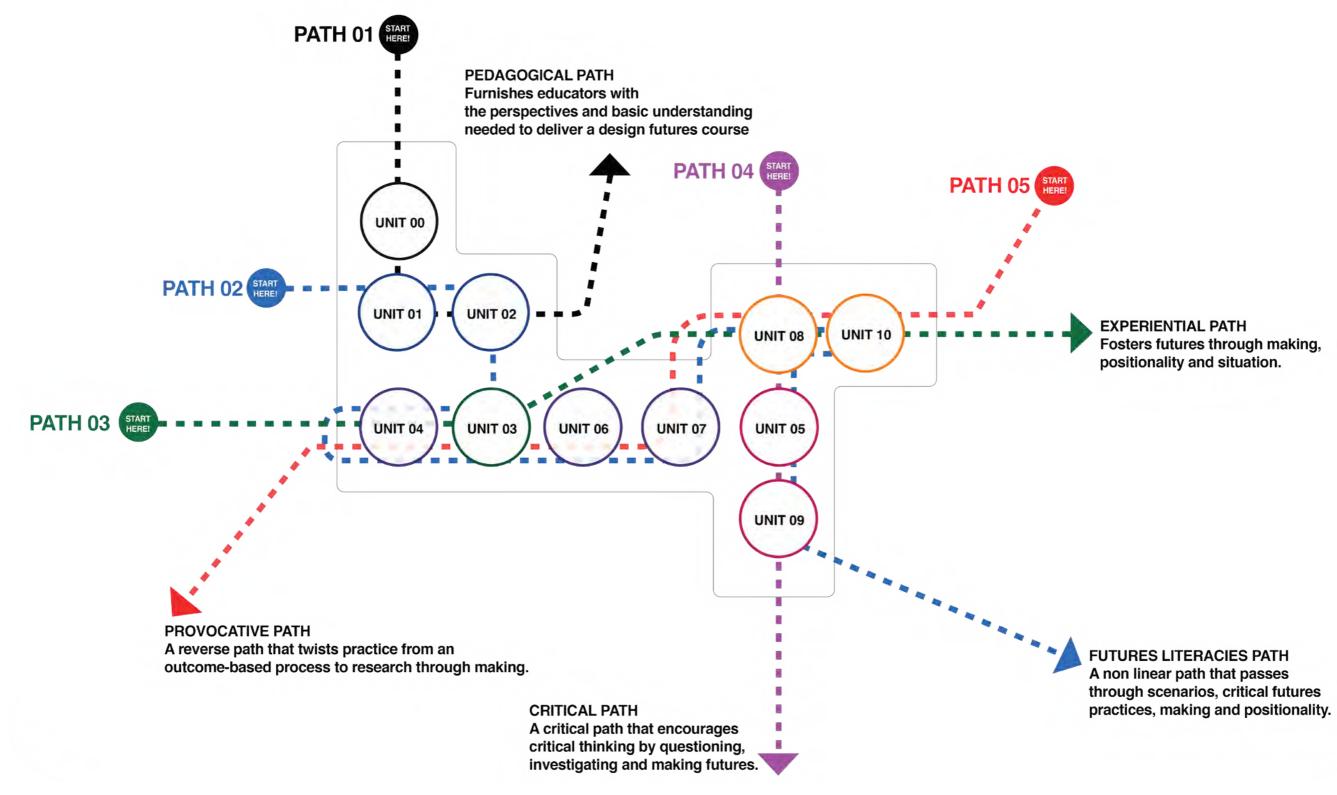
FUEL4 DESIGN FUTURES LITERACY METHODS | 9

EDUCATORS' GUIDE

TO FUTURES LITERACIES METHODS AND METHODOLOGIES

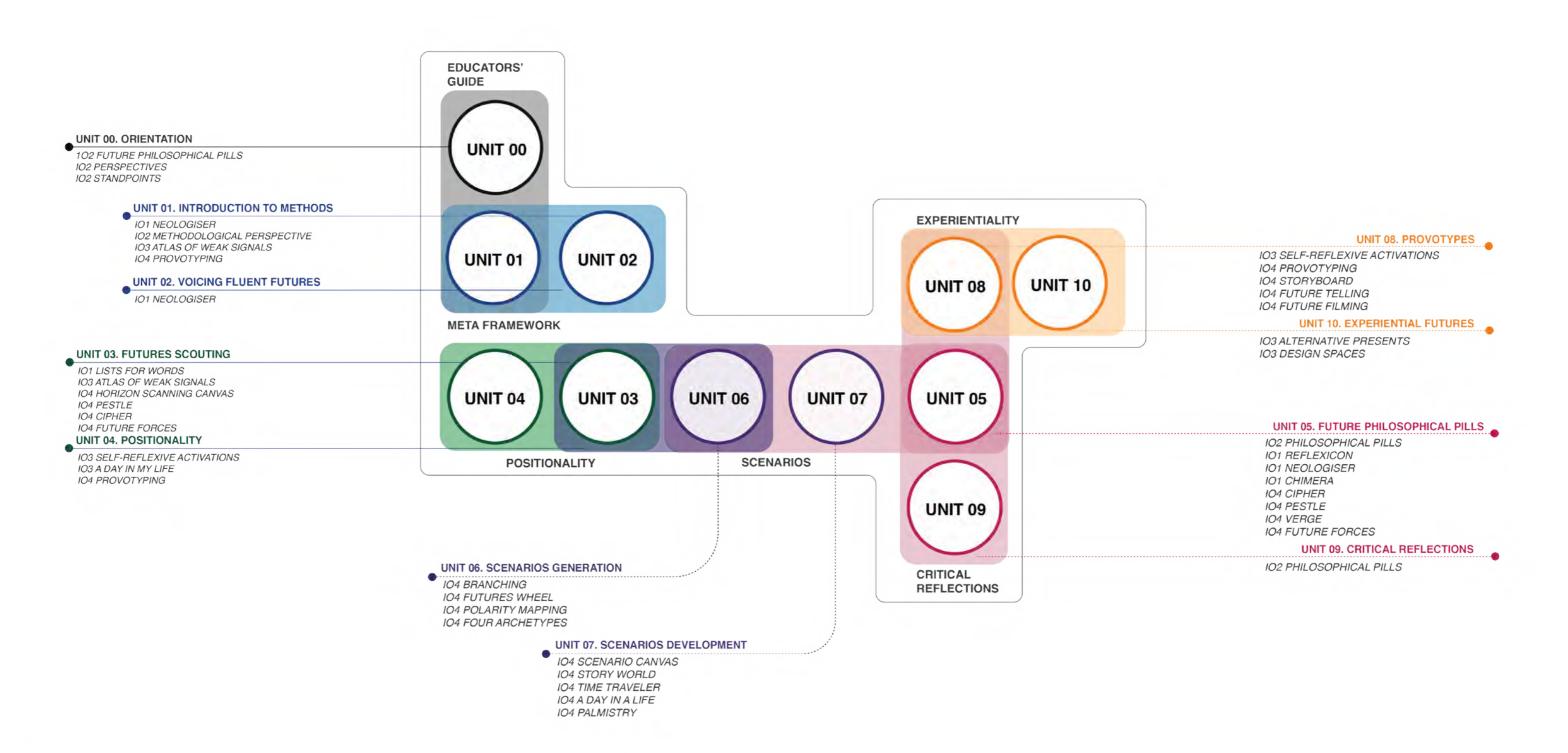
THE PATHS

Suggested pedagogical paths through the units



EDUCATORS' GUIDE

TO FUTURES LITERACIES METHODS AND METHODOLOGIES TOOLS AND DEVICES





FUTURES LITERACY METHODS

UNIT 00 ORIENTATION



















DESCRIPTION

This unit provides the foundation for educators to engage in teaching future design literacies. It enables you to deconstruct your prior learning. It challenges you to re-evaluate your teaching practice with a view to reframe the intersection future - design - literacies.

The subject of this Unit is Teaching- This is about understanding how to create a learning environment where to teach future literacies by actively re-imagining the practices of teaching. What is crucial, therefore, is how to unlearn.

The content is centred on facilitating 'change makers' (i.e., your students) to develop the ability to navigate their way through uncertainty and complexity in their future-building practice. Through reflecting on

your positionality and its influence on your actions, you will be invited to identify spaces for inclusive interventions with the potential to transform peer / student experience.

The Unit is underpinned by the principles of collegiality and active participation. You will share your own knowledge and experience with the group, and give and receive feedback through presentations, discussion, micro-teaching and peer observation in an atmosphere of mutual support and solidarity. This is a space to foster self-criticality in relation to your teaching practice. This Unit suggests a series of teaching tools and learning activities which are framed through a collaborative, participatory, reflective, hybrid and transdisciplinary ethos.

COMPETENCIES

The core competence of the Unit is to refine ways of working together to engage with uncertainty in a creative, critical and open manner. Specifically, by engaging with this unit you will acquire and demonstrate the following competencies:

- Reflecting on your attitudes to, and experiences of, learning and teaching to develop ethical awareness of your current position, practices, and contexts.
- Learning how to be empathic, to be an active listener and enabling others.
- Demystifying academic research, its purpose, and philosophical underpinnings, and how to decentering research canons, questioning histories and disciplinary silos

- Developing meaningful relationships with the community of educators, professionals, researchers with each other, and with other species (paying attention to the role of the nonhuman)
- Responding responsibly and ethically to complex situations arising within teaching and learning situations
- Understanding, embracing, and modelling the ethos of the unit. In other words, being prepared to embody the collegial, participatory and hybrid spirit of the unit, which intends to nurture self- reflection, openness, and practices of care tailored to whichever situation you find yourself in.

AIMS

The Unit will enable you:

- To support you to critically relate educational theory and practice (pedagogical knowledge) to your own disciplinary knowledge (e.g., design studies, future studies, engineering, art, and any other domain you are working with). The aim is to foster an ongoing reflection on how your field of expertise is taught and learned, and to view this process as dynamic and situated. For instance, by learning strategies on how to work with, and facilitate, learners' journey, group work and community building.
- To continually enhance your teaching practice in a way that responds to the complex and evolving contexts of institution, policy, and society. For instance, by examining the drive around decolonization, and other urgent matters emerging in society, by affirming education as a social purpose, which means reflecting on the future of design education, not on the future of educators only.

 To interrogate and demystify your current academic research language and practice so to be aware of gatekeeping mechanisms, and how they impinge on inclusivity and diversity. For instance, by looking at different modes of knowledge-production, hierarchies, and communication; challenging the status quo and developing awareness of alternatives (e.g., journals vs. zines).

DEPTH OF DETAIL

This Unit is a pre-requisite for educators before engaging with the rest of the material provided in Units 1-10. The purpose is twofold and concerns these two levels:

- Level 1: To provide a solid pedagogical platform ahead of engaging with the units 1-10. This unit will highlight and suggest practices in relation to ways of teaching with particular attention to groups dynamics, inclusivity, diversity, fairness and representation. It will also assist with making an informed choice among the units 1-10 through a selection of the pathways that best respond to your requirements, interests, and needs. It will introduce key terms (glossary) that you will encounter throughout.
- Level 2 (meta-level): To inspire educators to apply the learning gained through this unit to your own practice. The meta-level concerns how your way of teaching will change as you keep on engaging with the material and will impact on how your way of using the FUEL4Design material with your students. It fosters self-reflection and self-evaluation and is predicated on an ethos of education as transformative experience for educators and students alike. You, me, everyone: we are learning all the time.

EXPECTED LEARNING OUTCOMES

A. Knowledge and understanding	Articulate your positionality as educator and researcher, in relation to disciplinary practices, research philosophy and ethics.
B. Cognitive Skills	Explore new ways of knowing and sharing knowledge made possible through decentring research and design practice
C. Practical Skills	Identify a focused design topic/exercise/activity that has value for you as an educator/designer, demonstrating how this connects to relevant fields of future study
D. Generic Skills	Critically evaluate institutional, national, and global perspectives of equality and diversity, and their relevance to your academic practice context.
E. Collaborative Skills	Develop and enact hightened ways of working and being together through lived experience so to produce new knowledge

ACTIVITY

Individual task

To assist educators in the process of engaging with the levels indicated above, these tasks are recommended:

- a 'positionality' statement to reflect on who you are as an educator/designer, not only in relation to your disciplinary practices but also in considering research avenues that address the contexts in which you work and the individuals you work with.
- a 30-minute learning activity that activates discussion around a theme or issue emerging from your own research (e.g. workshop, seminar, other activity etc.) directed toward a mixed group of 5-8 students.

Group task

Working in collaboration with a small peer group (2-5 or more) to develop a document inclusive of code of conduct / set of principles/ core values informing your teaching practice within a diverse environment. This could be a manifesto-type

document, a flow-chart, a diagram etc. and the outcome of a mutually enriching process of discussion, negotiation and collaborative engagement (co-design).

Self and Peer-to-Peer evaluation

It is recommended that educators do self-evaluation throughout this unit. Self-evaluation can be a reflection journal, a series of blog entries or a mini-portfolio of notes and insights. Its purpose is to document your response to teaching practice as it evolves, and your responses to literature and other sources on teaching and learning.

Whenever possible, include Peer-to-Peer evaluation where colleagues come together to share experiences and reflection in a supportive and critically constructive environment.

Ongoing evaluation whether self or peerto-peer will encourage skills such as risktaking, independent enquiry, effective negotiation skills, as well as critical and civic engagement.

TOOLS AND DEVICES

Tools and devices appropriate to this
Unit are those that encourage educators
to reflect on their positionality, to critical
appraise their learning and to experiment
with ways of exercising agency, even in a
'risky' or disruptive mode. For instance, the
Perspectives and Standpoints (from the
Prompts cards in IO2) assist with questioning
the nature of the future you envision, the
knowledge it produces, the values and
politics attached to it etc. (Perspectives).
Also, they assist with reflecting on what can
(or cannot) be achieved through the position
you express (Standpoints).

Equally relevant here are tools that enable you to question your own learning and experiment with unlearning activities, for instance the Neologiser prompts you to work with imaginative words, each envisioning a

different futurescape, with potentially

innovative and alternative roles to cast a new light on the space of future-making

Perspectives

- Ontological Perspective
- Epistemological Perspective
- Methodological Perspective
- Axiological Perspective
- Political Perspective
- Technological Perspective

Standpoints

- Declarative
- Disruptive/ Re-framing
- Reformative
- Rejective

CASES AND EXPERIENCES

In this unit you might want to use the following methods, test them out and embed them in your teaching practice. Feel free to adapt them to your own teaching style. They can be used online and IRL.

- Silent brainstorming: working in silence is a powerful pedagogical technique that affords sustained reflection. It is ideal for intense idea-generation and pattern and visionbuilding; by diluting the clamour of dominant voices in a group dynamic, it empowers all participants equally
- Vision-building: using image research to collectively populate a board (or a wall if IRL) illustrating a specific future vision (e.g. around a year/theme), usually best initiated in silence. Participants add keywords and comments on each other's images.
- I DO ARRT (adapted from KaosPilot*): a guided way of setting the scene when

facilitating a group. The acronym stands for Intention, Desired Outcome, Agenda, Rules & Roles and Time. Participants co-design the items, making assumptions explicit and building a common culture where everyone feels represented.

*a creative leadership and educational accreditation <u>HERE</u>
In more detail: how to apply IDOARRT and Micro-teaching

1.IDOARRT

The purpose of IDOARRT is to aid you in co-designing your roadmap across the 1-10 Units in IO5.

It is a tool you can use to set and define your boundaries and scope in relation to IO5. It is predicated on a group working together, thus it requires negotiation and communication skills, and teamworking.

CASES AND EXPERIENCES

As said above, IDOARRT is a way of setting the scene. The acronym stands for Intention, Desired Outcome, Agenda, Rules & Roles and Time. Participants are invited to co-design each item, making their own assumptions explicit and striving to build a common culture where everyone feels represented and heard. Principles:

- Intention: why are we here?
- Desired Outcome: what will we leave with?
- -Agenda: Build your own roadmap according to your own trajectory, needs, and requirements, goals, the gaps you are identifying (but you may not be certain of as yet)
- Roles and Rules: who are we? Who are you?

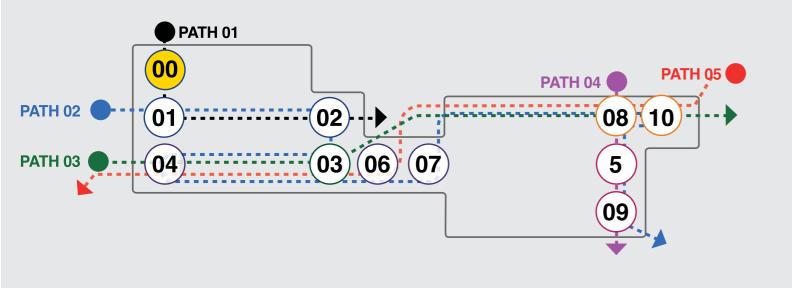
- Time: what is the timeframe you want/can allocate to their learning to ? Eg 2 hours? 2 days?

2. Micro-teaching

Prepare a 30-min learning activity of your choice (i.e. workshop, seminar or intervention) directed towards a mixed-student cohort that

activates discussion around an emerging themes or issue in relation to design and futures. The purpose of this session is both to highlight your existing practice in relation to design futures and to foster reflection on your teaching. Draw on your existing knowledge and your specialism. What are the aims of the session? How are you engaging your students? What do you want them to achieve? How are you going to self-evaluate?

ROADMAP AND CONNECTIONS



The yellow color indicates the position of the current Unit.

UNIT CONTENT

This unit is called Orientation because it intends to assist you with navigating the complex terrains of future-making throughout the IO5 set of units, by enabling you to find your own mode (of teaching, working, learning, unlearning). What this Unit does not wish to do is to provide you with a map: in this sense orientation is about you developing your own compass, rather than following a given blueprint. It is your journey of discovery, and is about developing agency, rather than been given all the answers. This also is in line with the meta-level of this project which asks what are futures made of?

Key features of the orientation process:

Building Community: The unit could start with a 3-day induction workshop to build an online cohort dynamic; to share and exchange cultural values; to communicate design tales and backgrounds; to introduce the unit/course ethos and provide key induction sessions. Peer learning is embedded into the course, allowing for the creating of a multidisciplinary community of practice that capitalises on diverse disciplinary, professional, and practice-based ways of knowing.

Testing Tools: Tutors are encouraged to run a pilot of the tools that they will be applying in the different units. A way of doing this is to engage in a Micro-teaching workshop. (Micro-teaching concerns leading a short activity with a peer group as if they were your students). The workshop takes place with tutors working with each other in order to become familiar with the chosen material, adapting it to their own situations and getting ready to implement it (for instance a micro-teaching capsule using the Pills or the Lexicon for a short session). This is a way to enhance your pedagogic ideas, experience, and expertise in collaboration with other members of the programme/course community; moreover, it actively

encourages participants to evolve traditional design research and practice approaches by surfacing deep knowledge of creative and professional practice and amalgamating it into their research.

Positioning Yourself: Opening with an introduction to varied ontological and epistemological approaches to constructing knowledge, we will explore together how as researchers and practitioners we situate ourselves in the pursuit and communication of knowledge. By reflecting on your positionality, mapping your positionality, and sharing it with others you create conditions to develop sensitivity and evaluate the impact of your teaching.

Transdisciplinary practices: Educators are encouraged to think and act transversally to unsettle both verticality and horizontality, and the hierarchies these might conceal. They are encouraged to explore the value of transdisciplinary in breaking boundaries and questioning existing disciplinary silos. Investigating and playing with a range of methodologies drawn from diverse disciplinary fields will enable you to develop an experiential understanding of your own knowledge production. Acknowledging expertise in the classroom and voicing the voiceless surfaces issues of how to stay with divergence and engage in bridge-building rather than pushing for consensus.

Educators will be invited to critique research traditions and practices, considering decolonial imperatives and consider what it means to decentre academic research and practice traditions in the 21st century.

FUEL 4 DESIGN 20 FUTURES LITERACY METHODS | 21

INDICATIVE BIBLIOGRAPHY

British Educational Research Association (2018) Ethical Guidelines for Educational Research.4thed. Available at: https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-2018

Chalmers, J. (2017) 'The Transformation of Academic Knowledges: Understanding the Relationship between Decolonising and Indigenous Research Methodologies', Journal of the Society for Socialist Studies, 12(1), pp. 97-116.https://doi.org/10.18740/S4GH0C

Cousin, G. (2009) Researching learning in higher education: an introduction to contemporary methods and approaches. London: Routledge.

Curry, P. (2017) 'The Enchantment of Learning and 'The Fate of our Times'. In Voss, A. and Wilson, S. (Eds.) Re-Enchanting the Academy. Seattle: Rubedo Press, pp. 33-51. Available at:http://www.patrickcurry.co.uk/papers/The%20Enchantment%20of%20Learning%20(print%20version).pdf

D'Olimpio, L. (2019) Ethics Explainer: Ethics of Care. The Ethics Centre[. Online]. 16 May. Available at: https://ethics.org.au/ethics-explainer-ethics-of-care/

Farías, I. and Wilkie, A. (2015) (Eds.) Studio Studies: Operations, topologies and displacements. London: Routledge.

Frodeman, R. and Mitcham, C. (2007) 'New Directions in Interdisciplinarity: Broad, Deep and Critical', Bulletin of Science, Technology & Society, 27(6), pp. 506-514. https://doi-org.arts.idm.oclc.org/10.1177/0270467607308284

Gurukkal, R. (2018) 'Interdisciplinary Approach', Higher Education for the Future, 5(2), pp. 119-121. https://doi.org/10.1177/2347631118769398

Hamdan, A.K. (2009) 'Narrative Inquiry as Decolonising Methodology', InterActions: UCLA Journal of Education and Information Studies, 5(2). Available at:https://escholarship.org/uc/item/6mt5893k

Holmwood, J. (2018) 'Race and the Neoliberal University.' In Bhambra, G. K., Gebrial, D. and Nişancıoğlu, K. (Eds.) Decolonising the University. London: Pluto Press, pp.37-52.

Kuby, C. R. and Christ, R. C. (2018) 'An Ethico-Onto-Epistemological Pedagogy of Qualitative Research: Knowing/Being/Doing in the Neoliberal Academy', in Bozalek, V., Braidotti, R., Shefer, T. and Zembylas, M. (Eds.) Socially Just Pedagogies. London: Bloomsbury, pp.131-147.

Lury, C. (2020) Problem Spaces: How and Why Methodology Matters. Cambridge: Polity Press.

Lutsky, K. and Burkholder, S. (2017) 'Curious Methods', Places Journal. Available at: https://placesjournal.org/article/curious-methods/ (Accessed: 8 December 2020).

Spatz, B. (2017) 'Embodied Research: A methodology', Liminalities: A Journal of Performance Studies, 13(2). Available at:http://liminalities.net/13-2/embodied.pdf (Accessed: 9 December 2020).

St. Pierre, E. A. (2019) 'Post Qualitative Inquiry: The Refusal of Method and the Risk of the New', in Qualitative Inquiry, July 2019, pp.1-7. https://doi.org/10.1177/1077800419863005

ANNEX 01 ANNEX 02

LIST OF TOOLS AND DEVICES

IO1 IO1 IO1 IO1 IO1 IO1 IO1 IO1 IO1	LISTS FOR WORDS FRAMES FOR FUTURES FUTURES DESIGN LITERACIES MATRIX WORD-O MAP NEXUS SEMANTIC CATEGORIES BALLUSION REFLEXICON FUTURES DESIGN DISCOURSE MOVES CHIMERA NEOLOGISER UNMAKER
IO2 IO2 IO2 IO2 IO2 IO2 IO2 IO2 IO2 IO2	AFFECTIVE MODES PERSPECTIVES STANDPOINTS PILLS (STEWARDSHIPS) PILLS (CAPACITIES) PILLS (BELIEFS) PILLS (CHARTS) PILLS (CRISES) PILLS (STORIES) PILLS (STRATEGIES) PILLS (TRAJECTORIES) PILLS (UNKOWNS) PILLS (VISIONS)
IO3 IO3 IO3 IO3 IO3	ATLAS OF WEAK SIGNALS ALTERNATIVE PRESENTS SELF-REFLEXIVE ACTIVATIONS 1PP DESIGN INTERVENTIONS DESIGN SPACES
IO4 IO4 IO4 IO4 IO4 IO4 IO4 IO4 IO4	HORIZON SCANNING CANVAS CIPHER PESTLE VERGE FUTURE FORCES FPP CANVAS BRANCHING FUTURES WHEEL POLARITY MAPPING 4 ARCHETYPES SCENARIO CANVAS

A DAY IN A LIFE

IO4

IO4

IO4

IO4

IO4

IO4

IO4

104

STORYWORLD

PROVOTYPING

STORYBOARD

FUTURE TELLING

FUTURE FILMING

PALMISTRY

TIME TRAVELER

EXTENDED REFERENCES LIST

Mark Blythe. 2014. Research through design fiction: narrative in real and imaginary abstracts. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14). Association for Computing Machinery, New York, NY, USA, 703–712.

DOI: https://doi.org/10.1145/2556288.2557098

Candy, S. (2010). The Futures of Everyday Life: Politics and the Design of Experiential Scenarios. University of Hawaii at Manoa.

Candy, S., & Dunagan, J. (2017). Designing an Experiential Scenario: The People Who Vanished. Futures, 86, 136-153.

Hook, K., Caramiaux, B., Erkut, C., Forlizzi, J., Hajinejad, N., Haller, M., Hummels, C., Isbister, K., Jonsson, M., Khut, G., Loke, L., Lottridge, D, Marti, P, Melcer, E., Mul'îller, F., Petersen, M., Schiphorst, T., Segura, E, StalŠhl, A., SvanÃ's, D., Tholander, J., Tobiasson, H. Embracing First-Person Perspectives in Soma-Based Design. Informatics 5, 1 (Feb. 2018), 8.DOI: https://doi.org/10.3390/informatics5010008

Krogh, P. G., Markussen, T., & Bang, A. L. (2015). Ways of drifting—Five methods of experimentation in research through design. In ICoRD'15–Research into Design Across Boundaries Volume 1 (pp. 39-50). Springer, New Delhi.

Andrés Lucero, Audrey Desjardins, Carman Neustaedter, Kristina Höök, Marc Hassenzahl, and Marta E. Cecchinato. 2019. A Sample of One: First-Person Research Methods in HCI. In Companion Publication of the 2019 on Designing Interactive Systems Conference 2019 Companion (DIS '19 Companion). Association for Computing Machinery, New York, NY, USA, 385–388.

DOI: https://doi.org/10.1145/3301019.3319996

Angella Mackey, Ron Wakkary, Stephan Wensveen, Annika Hupfeld, and Oscar Tomico. 2020. Alternative Presents for Dynamic Fabric. Proceedings of the 2020 ACM Designing Interactive Systems Conference. Association for Computing Machinery, New York, NY, USA, 351–364.

DOI: https://doi.org/10.1145/3357236.3395447

Miller, R. (Ed.). (2018). Transforming the Future: Anticipation in the 21st Century (1st ed.). Routledge. https://doi.org/10.4324/9781351048002

Schadler, C. (2017). Enactments of a new materialist ethnography: Methodological framework and research processes. Qualitative Research, 19(2): 215-230.

Wakkary, R., Odom, W., Hauser, S., Hertz, G. & Lin, H. (2015). Material speculation: Actual artifacts for critical inquiry." In Proceedings of The Fifth Decennial Aarhus Conference on Critical Alternatives, (pp. 97-108). Aarhus: Aarhus University Press.

Brandt, E., Binder, T. & Sanders, E. (2013). 'Tools and techniques: Ways to engage telling, making and eEnacting'. In J, Simonsen & T. Robertson (eds.). International Handbook of Participatory Design. New York: Routledge. 145-181.

Buchenau, M. & Suri, J.F. (2000). Experience prototyping. In Proceedings of DIS'00. NY: ACM. pp. 424–433.

FUEL 4 DESIGN

24

FUTURES LITERACY METHODS | 25



FUEL4DESIGN

Future Education and Literacy for Designers (FUEL4Design) aims at developing knowledge, resources and methods to help young designers designing for complex tomorrows. FUEL4Design builds on an extensive research programme conducted by leading universities and experts in Europe.

www.fuel4design.org







