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Preparing future teachers to navigate the open-ended landscape of “education in the digital age”

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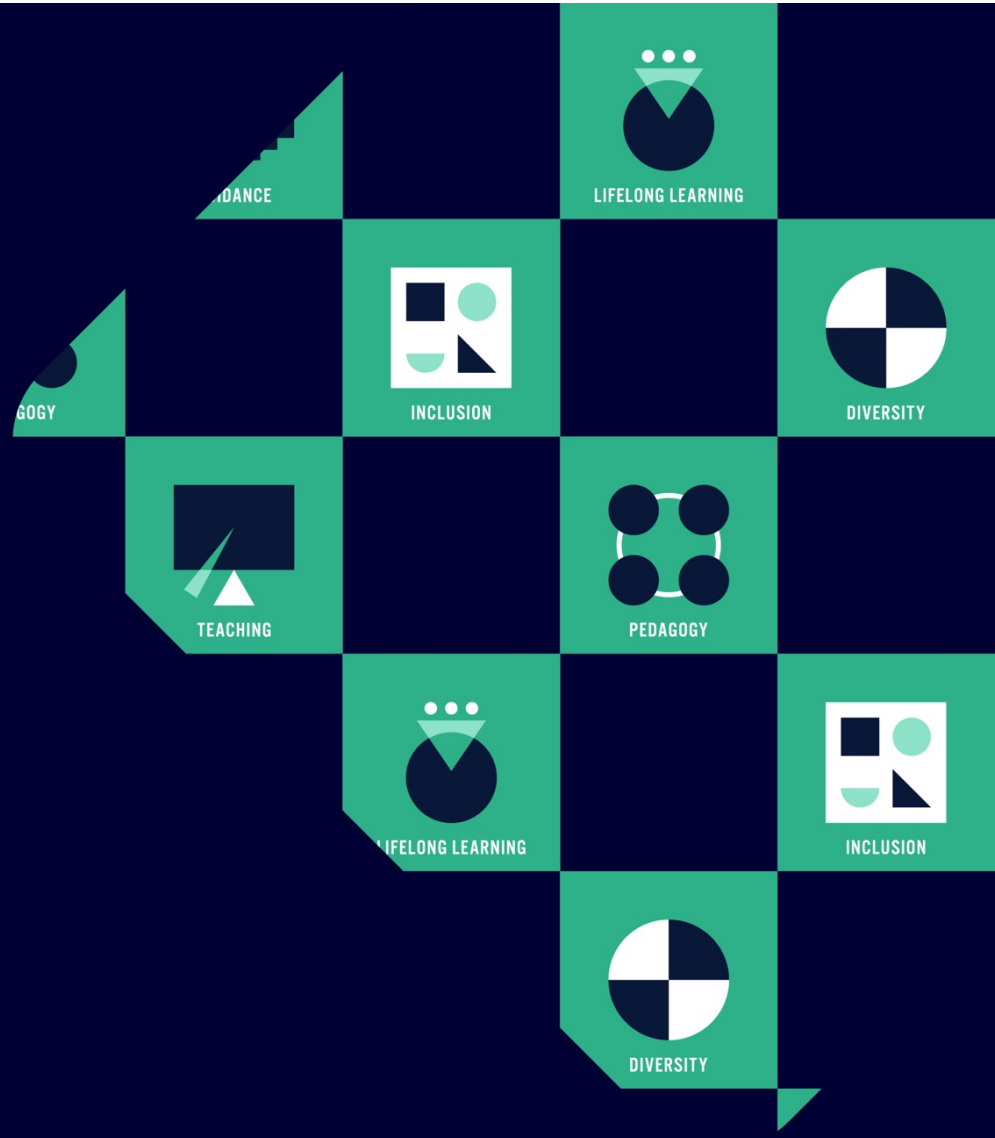
FACULTY OF HUMANITIES, EDUCATION AND SOCIAL SCIENCES



Background

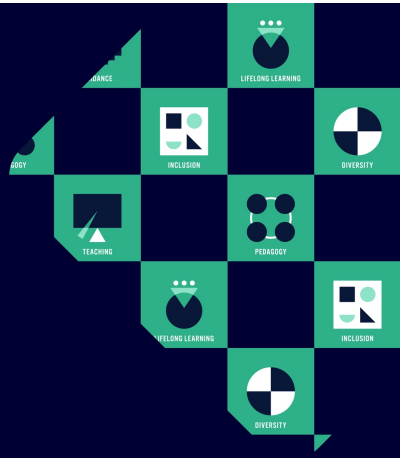
Course Context

- Mandatory course in initial teacher-training programme (BScE)
- Historically taught as a lecture format

Why redesign?

- Move beyond teacher-centered transmission
- Engage students in constructing meaningful knowledge
- Respond to rapid digital transformation in education

From Lecture to Digital Portfolio



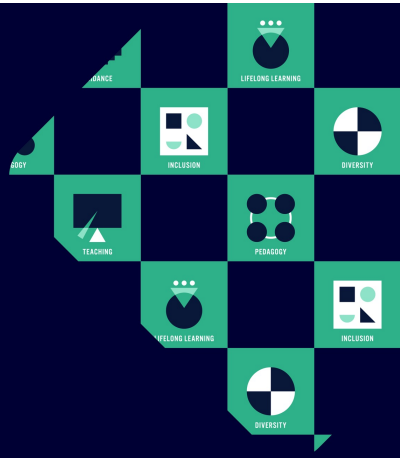
Earlier redesign (Reuter & Busana, 2018)

- Students worked with “big questions”
- Inquiry-based group work
- Knowledge shared via digital portfolios

Observed outcomes

- More active learning
- But: many portfolio submissions converged on similar “standard” answers

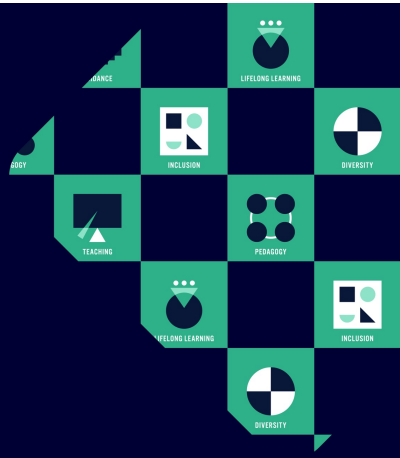
New Rationale for Change



We wanted to:

- Foster critical thinking, creativity, and adaptability
- Recognize ongoing transformations in the digital landscape
- Handle growing student numbers and unmanageable assessment loads
- Encourage self-directed, authentic inquiry

Current Teaching Approach



Weekly Exploration

Students explore a new topic each week, building their own understanding around 3 big themes:

- **Socio-cultural & pedagogical change in the digital age**
- **Emerging skill requirements for teachers & learners**
- **Digital tools for meaningful learning experiences in K–6**

The Open-World Game Metaphor

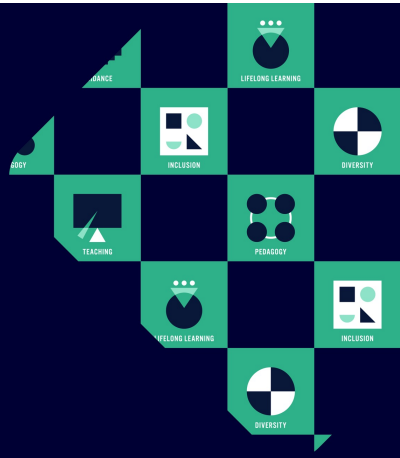
Learning as exploration in a digital open world

- Students roam the “information hyperspace”
- Gather information from diverse sources
- Interact with peers and experts
- Solve authentic educational problems
- Construct knowledge collaboratively

Pedagogical philosophy

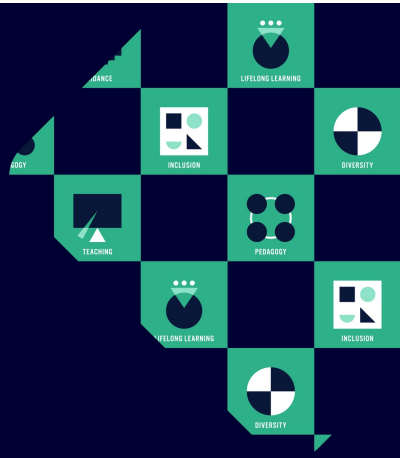
- Authenticity • Autonomy • Open exploration • Critical reflection

What Students Actually Do



- Explore curated starting points, then branch out
- Analyse real-world digital-age educational challenges
- Engage in critical debates and peer exchanges
- Document learning journeys (reflections, notes, artifacts)
- Create a final reflective video

The Reflective Video

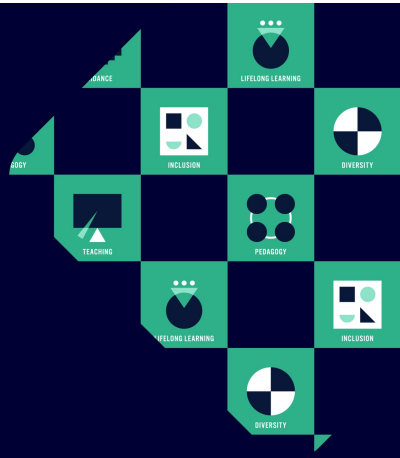


Culminating assignment

A professionally relevant artifact in which students address:

- **Digital-age realities in primary schools**
- **Challenges teachers face**
- **Opportunities offered by digital media**
- **Their own evolving understanding**

The Reflective Video



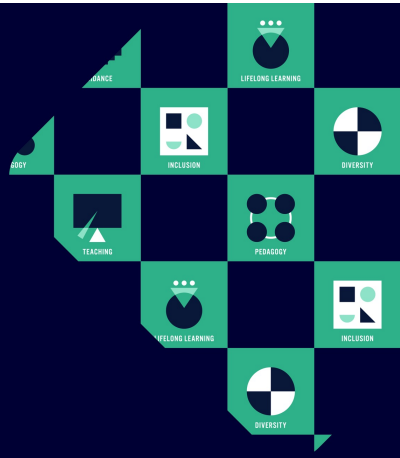
Impact

- **Boosts motivation**
- **Enhances ownership**
- **Produces tangible professional artifacts**

Factors Contributing to Success

- **Strong alignment between teaching philosophy and course design**
- **Authentic inquiry → higher engagement**
- **Collaborative exploration → deeper understanding**
- **Video output → clear, concrete, meaningful "real-world" deliverable**

Main Challenges



Mindset Shifts

- Students accustomed to traditional instruction need time to embrace autonomy

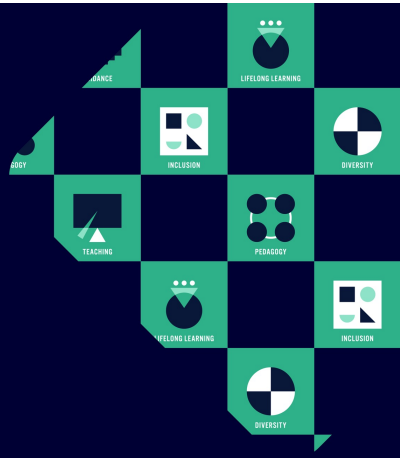
Digital Literacy Differences

- Uneven competences require scaffolding and targeted support

Open Exploration vs. Overwhelm

- Too much freedom can confuse students
- Instructors tempted to over-guide, risking reduced autonomy

What We Learned

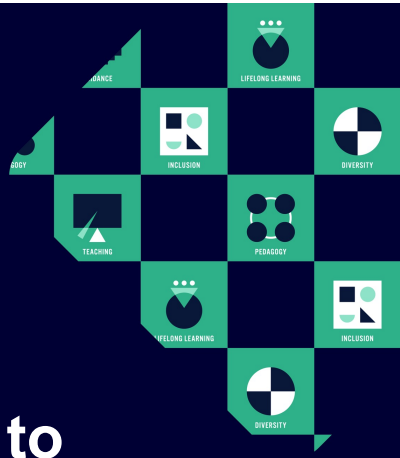


- **Authentic, inquiry-driven pedagogy works in teacher education**
- **Future teachers benefit from enacting the practices they will later use**
- **Autonomy requires structure - scaffolding matters**
- **Openness + exploration enhances motivation and competence**
- **Assessment must remain manageable as cohorts grow**

Implications for Higher Education

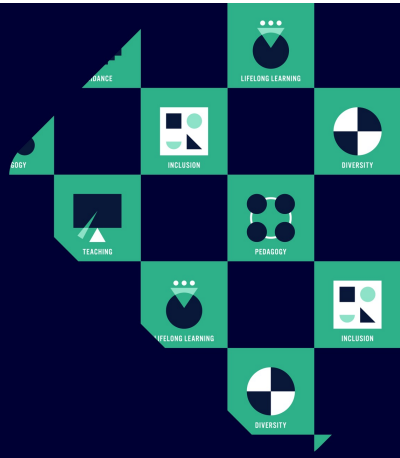
- **Student-centered, participatory learning is feasible at scale**
- **Digital-age teacher training should model digital-age pedagogy**
- **Cultivating lifelong learning mindsets is as critical as teaching digital skills**
- **Open-world metaphors help communicate and structure exploratory learning**

Closing



Towards a new grammar of learning

- **Openness, inquiry, and autonomy prepare future teachers to navigate — and shape — the evolving digital landscape of education.**



THANK YOU FOR YOUR ATTENTION

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