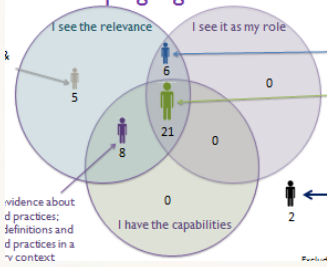


*Diagrams to discourse and discourse to diagrams:
uses of visual representation in qualitative research
to support staff development of digital literacies*

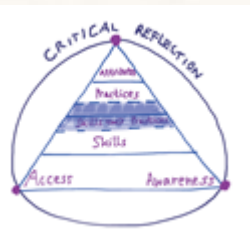
Sarra Saffron Powell / Tünde Varga-Atkins
University of Liverpool
Research funded by SEDA Small Grants



Dissemination
Communication

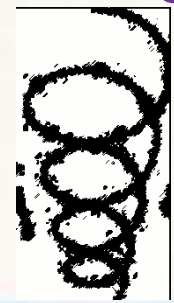
Design

Research Cycle



Reporting

Use of diagrams



Data Collection



Data Analysis



During this session:

- Are diagrams (or other visual representations) viable tools to use in your own practice?
- What are the merits and limitations of visual approaches in supporting your critical reflection on your own perceptions and practices?

Background

- SEDA small grants research funding
- [Full report available:](#)



What has been learnt?

From both research processes and findings we have learnt about digital literacies and critical reflection:

Digital Literacies

The relationship between functional competence in current definitions of digital literacies and its illustration of an individual as "digitally fluent". The graduate attributes of the University is defined as the "functional access, confident, agile adopter of a range of technologies". However, our findings suggest that digital literacies and reflection, have both sociological impact on the significance of functional skills, practices and the following:

A digitally literate individual is able to navigate digital contexts and understand the implications upon new ways of knowing.

Critical Reflection

The complexity and ambiguity of reflection is problematic and results in a range of research shows that it is the complex nature of an ideal lens through which to work in a digital age. These complex digital practices. Drawing on research (2004) we will take reflective or

A deliberate metacognitive process to identify an external problem, to reflect on the perceptible impact of that problem, to reflect on that problem, to reflect on which external re-



'Digital Literacies: A Study of Perspectives and Practices of Academic Staff'

Sarra Saffron Powell / Tihode Varga-Atkins
University of Liverpool

SEDA Small Grants Project

July 2013



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Digital Literacies: A Study of Perspectives and Practices of Academic Staff,
a Project Report by Powell and Varga-Atkins
University of Liverpool, July 2013

What was done?

Explored academic staff's:

- practices in digital literacies,
- perspectives of those practices within a discipline specific context.
- individual and institutional enablers and constraints
- explored the role of critical reflection in relation to developing digital literacies.

staff interviews and surveys

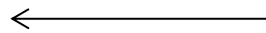
Why was it done?

- To understand:
 - how digital practices emerge;
 - to understand what staff are already doing;
 - to find out what the university could do to help support staff in enhancing students' development of digital literacies.
 - the role of critical reflection in the development of digital literacies
- To promote the digital literacies agenda and improve the student experience

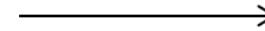
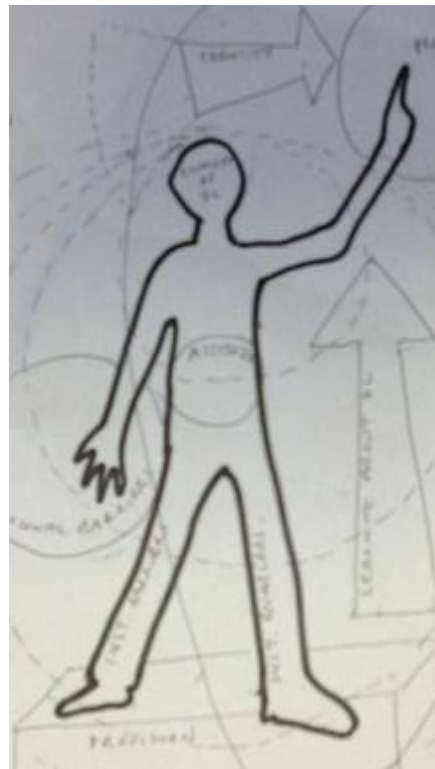
Defining digital literacies

functional competence (externus) and capability (internus)

flexible



capable



confident

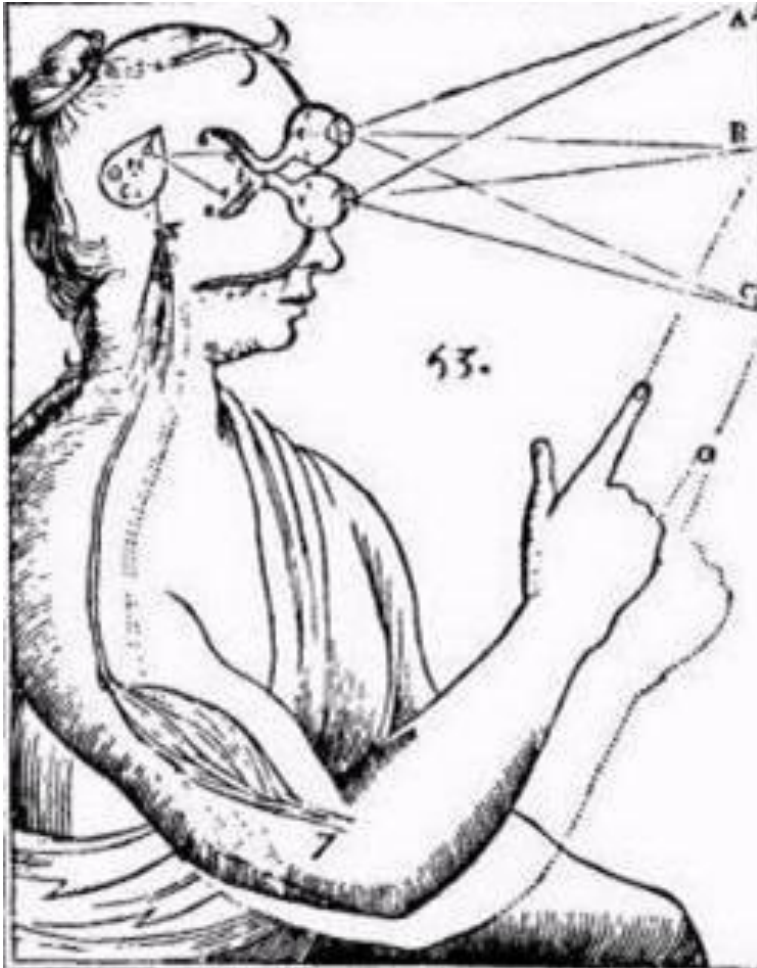


agile adopter

critically reflective

Why visuals (diagrams)?

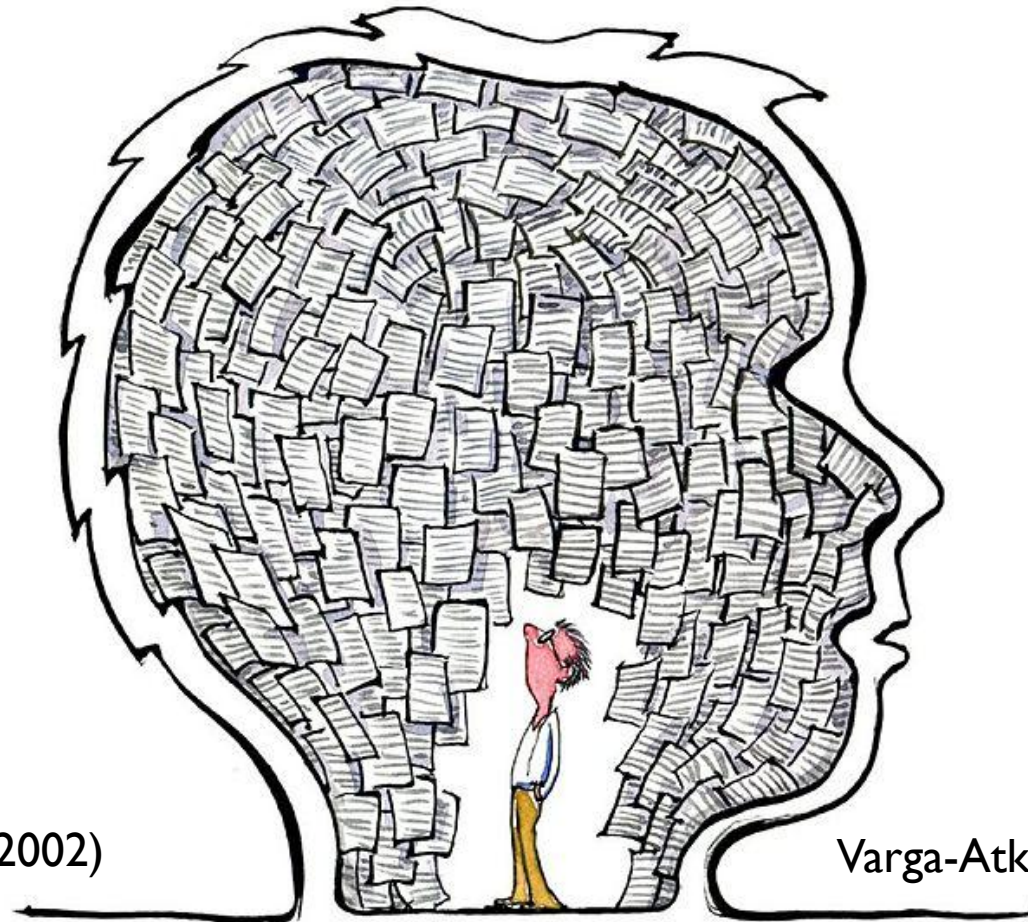
The value of diagrams



“A diagram is a visual representation that shares the properties of written **text** and representational **images**, but cannot be reduced to either”
(Blackwell, 2001, p. 1).

<http://cas.uchicago.edu/workshops/earlymodernphil/files/2013/04/descartesoptics.jpg>

Not just 1000 words: new insights



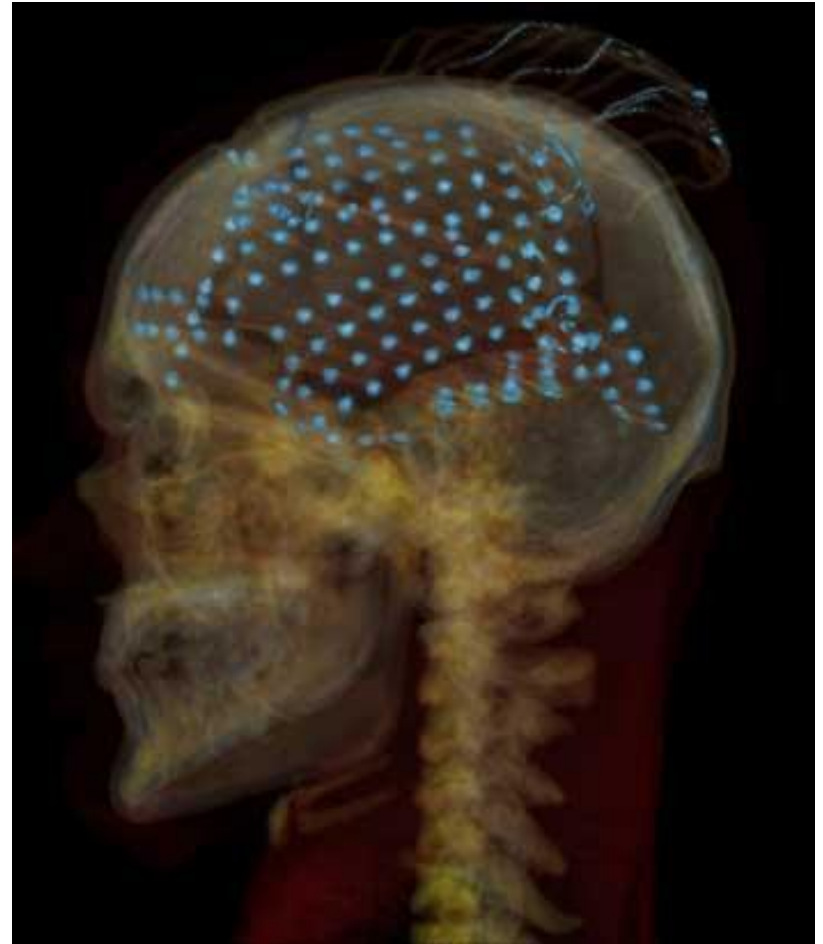
Harper (2002)

Varga-Atkins & O'Brien (2009)

Pic credit: Wikipedia: HikingArtist

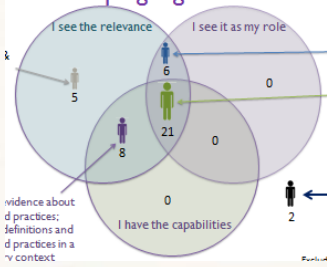
Mmm, useful

...visual modalities, unbound by the linearity of text (Land, 2011), are especially suited to explore both self-perception and practices, whilst depicting the **multimodal, multi-directional complexities** of those practices in context of developing digital literacies.



[Credit: Adeen Flinker, UC Berkeley](#)

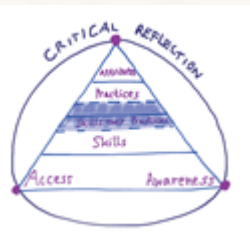
Let us take you through
each stage in our research cycle



Dissemination
Communication

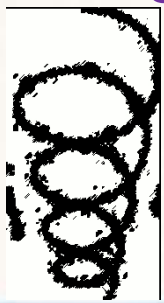
Design

Research Cycle



Reporting

Use of diagrams



Data Collection



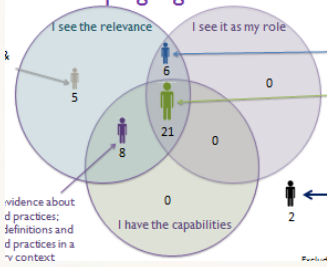
Data Analysis



The big challenge



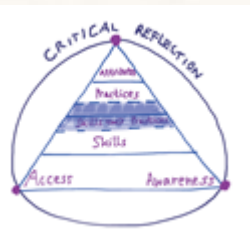
- Not to pre-empt responses
- We wanted participants to **volunteer** where they engaged with technology



Dissemination
communication

Design

Research Cycle



Use of diagrams



Reporting

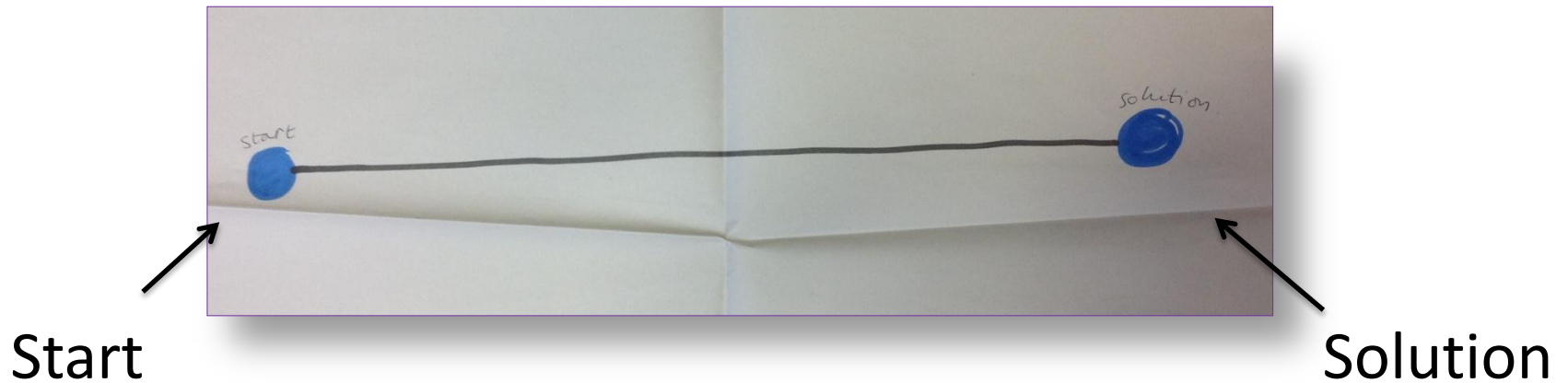
Data Collection



Data Analysis



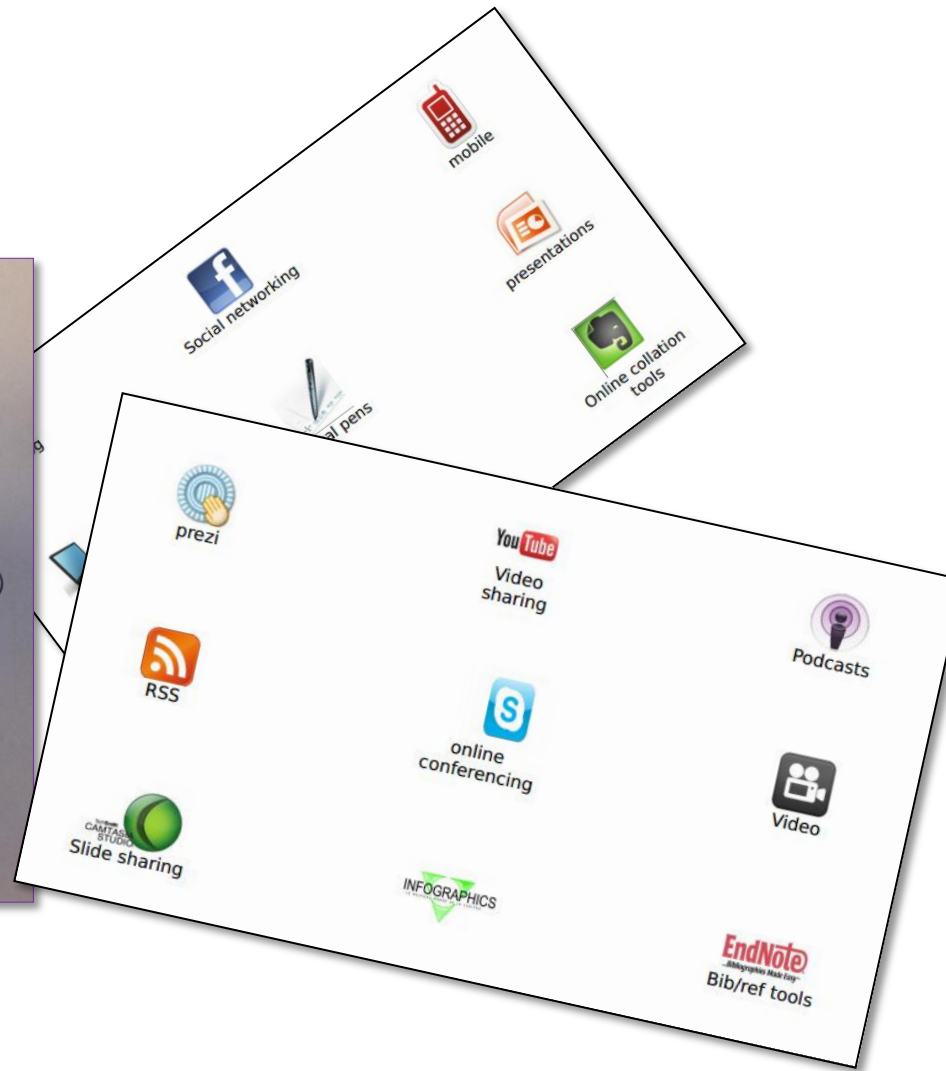
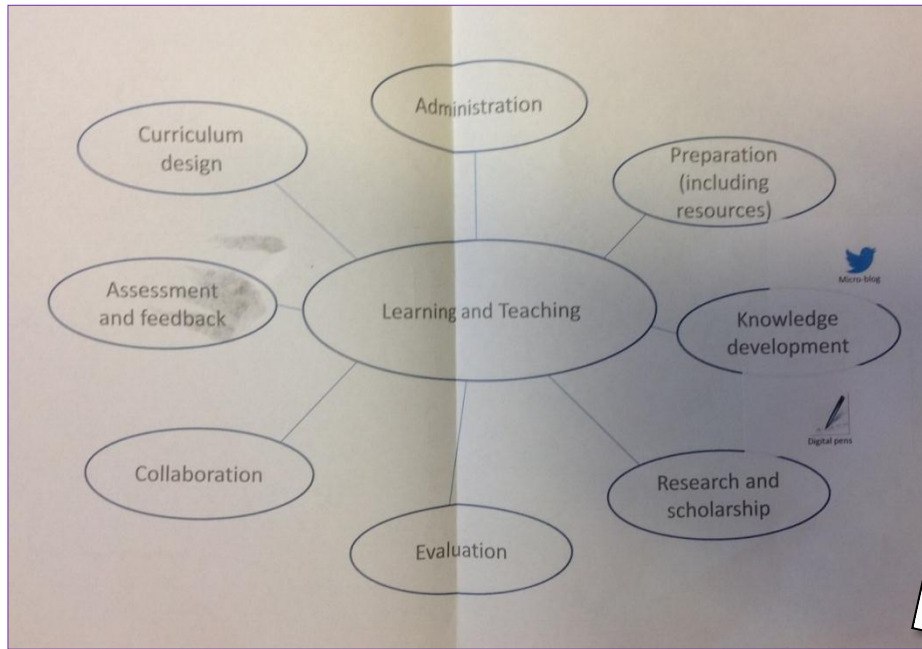
Participatory diagramming (a “rebus”)



We posed a learning and teaching ‘problem’ and asked staff to chart the their approaches and activities to reach a solution

Challenges: varying comfort levels and a feeling of being “under prepared” (Umoquit et al 2008).

Paired Activity



Paired Activity. Take 2-3 stickers. Interview your pair about their use of these selected technologies.

When do you use these technologies and how?

Observe the questions below and be ready to feed back about your experience as interviewer/interviewee.

Interviewer

How helpful is the visual task in getting your 'data'? To what extent is the structure offered by the diagram help or hinder?

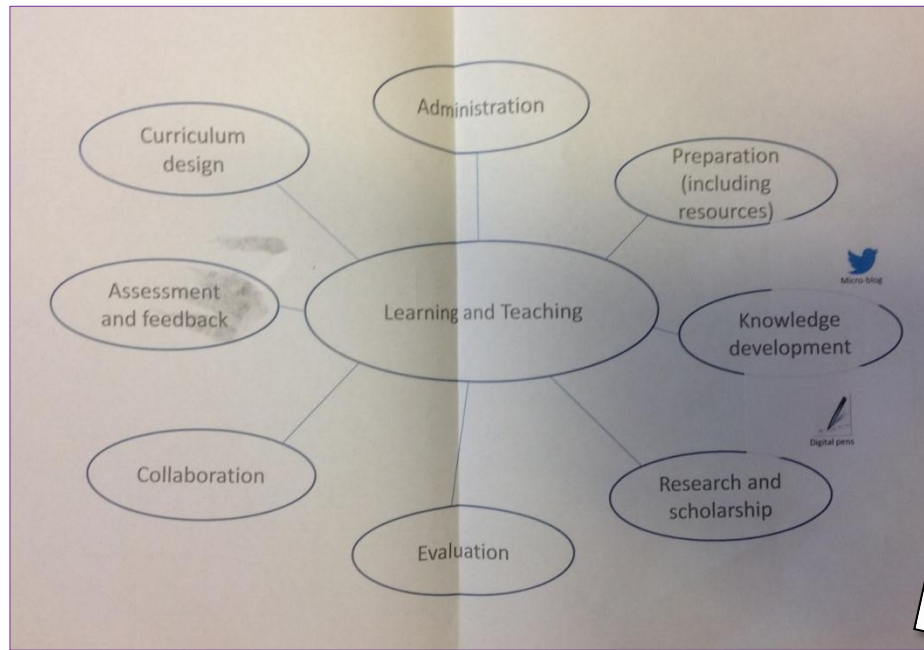
Interviewee

How helpful is the visual task in helping you formulate your thinking? To what extent is the structure offered by the diagram help or hinder?

Diagrammatic elicitation

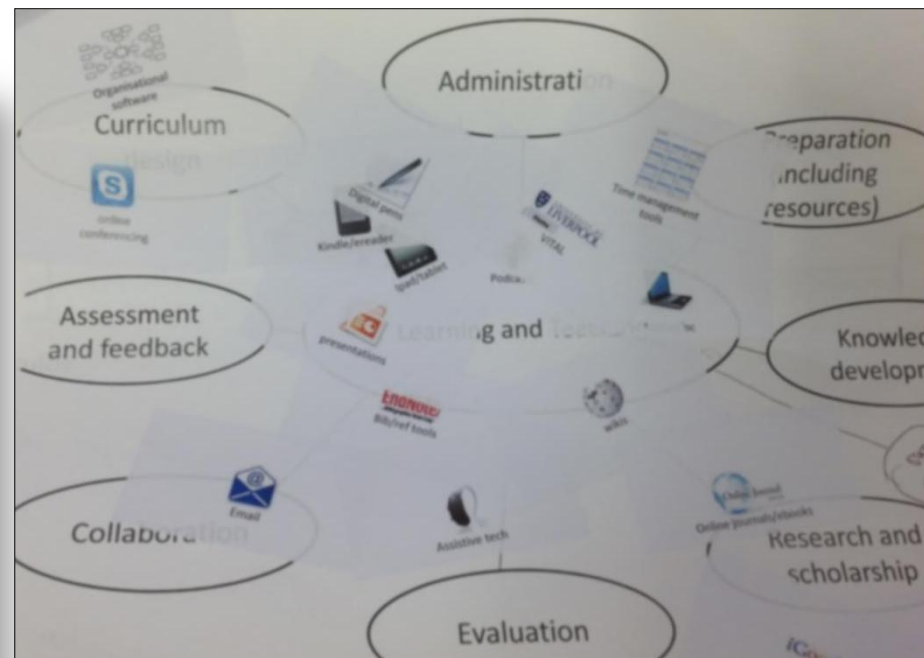
can be participant- or researcher-led

(Umoquit *et al* 2013);



= A more realistic representation of academic staff's range of digital practices

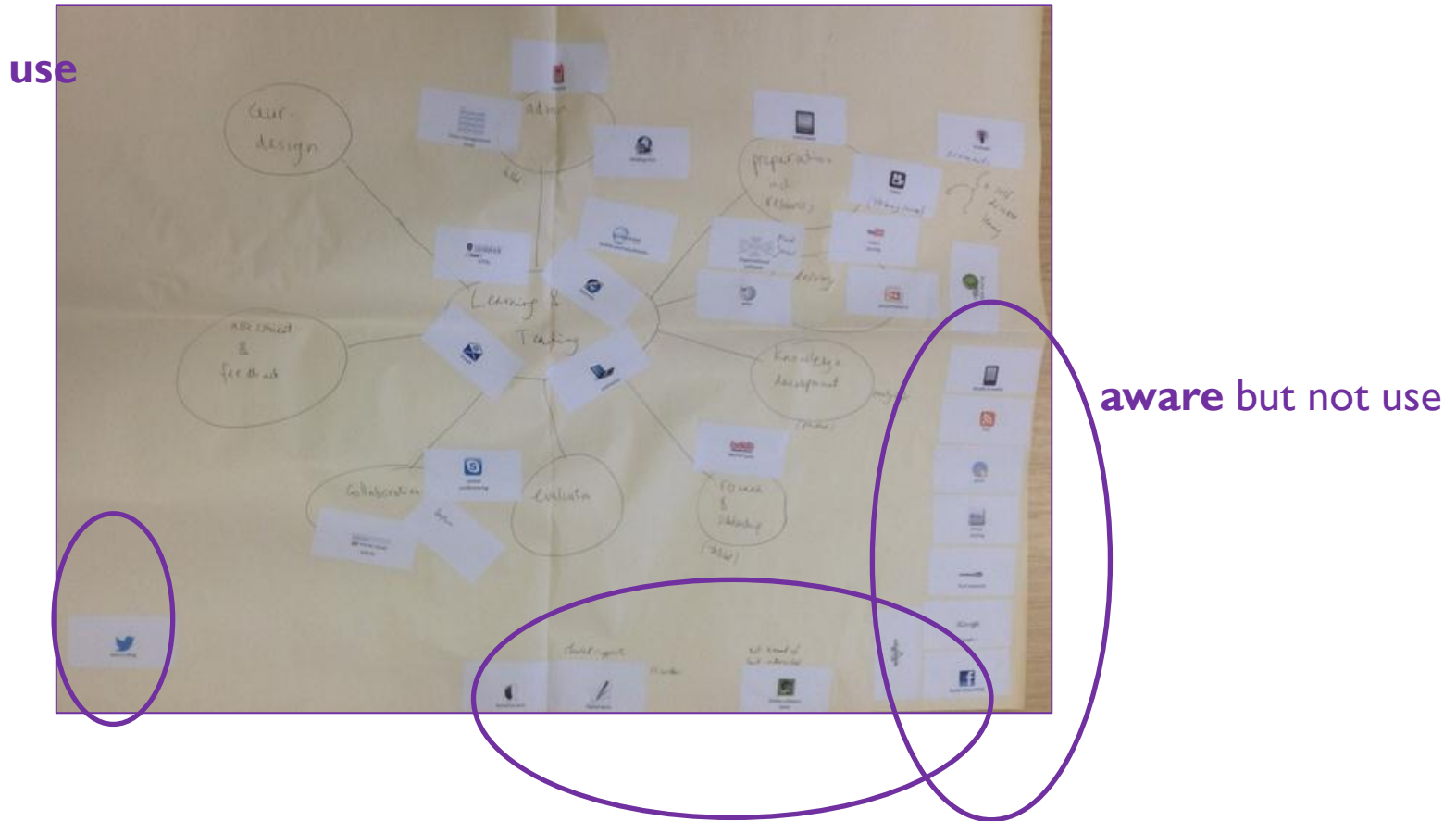
Diagrams to elicit discourse

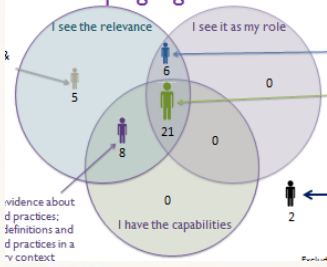


Triggers: Visuals/diagrams can elicit ideas that may otherwise remain unarticulated and promote general discussion.

(Gaskell, 2000 in Crilly *et al* 2006)

Dilemma of Diagramming: balance between openness and structure





Dissemination
Communication

Design

Research Cycle



Use of diagrams

Reporting

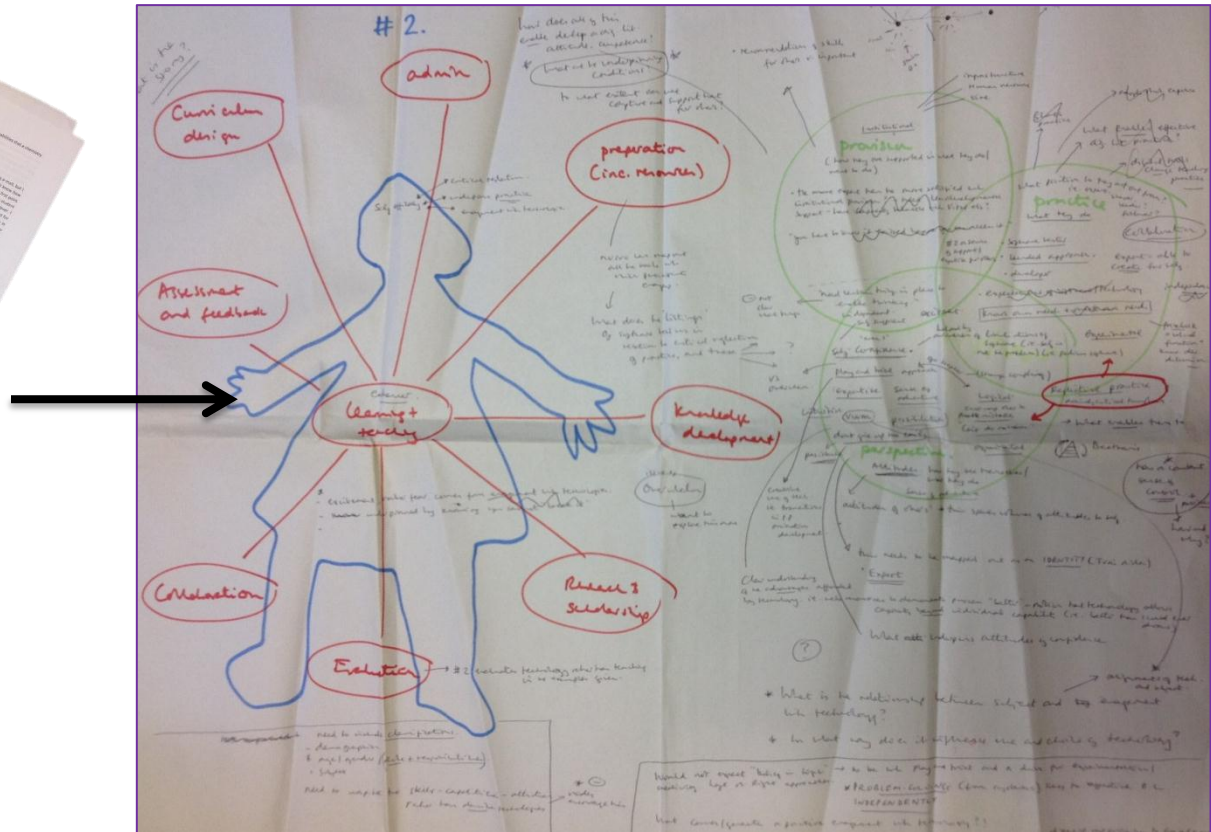
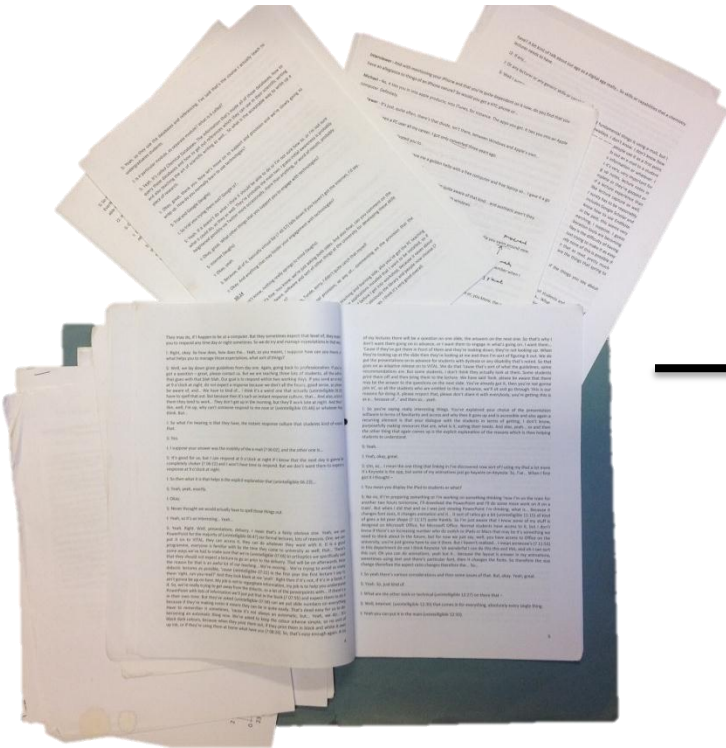
Data Collection



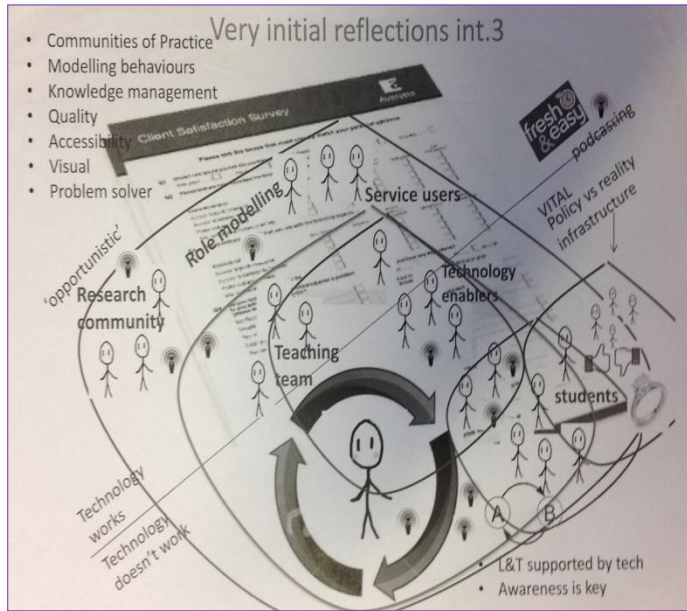
Data Analysis



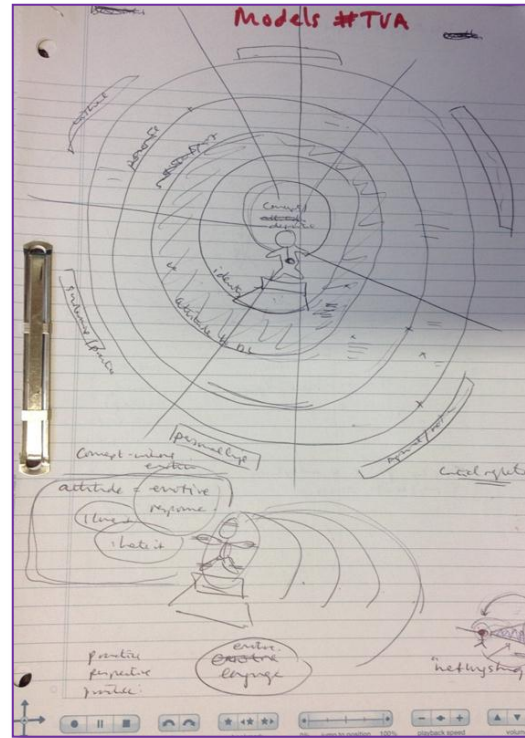
Using diagrams to interrogate discourse



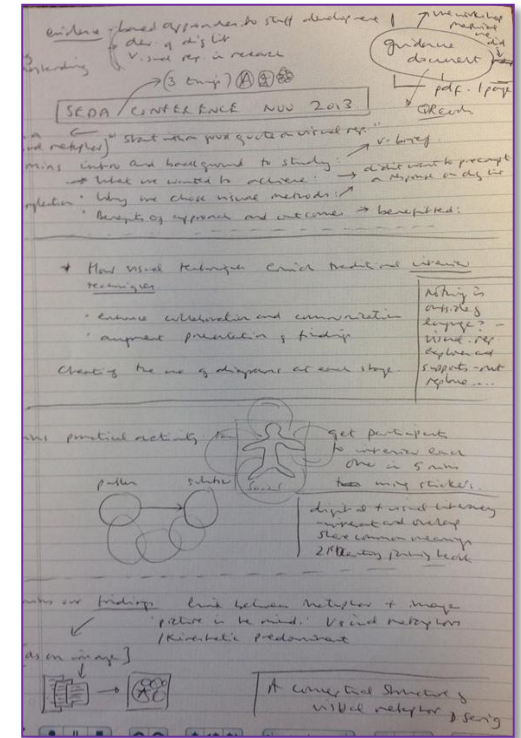
Diagrams for analysis and discussion

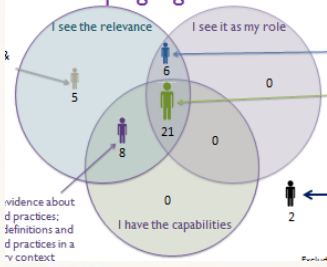


Initial reflections on data analysis



Diagrammatic discussions



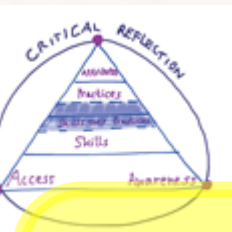


Dissemination
Communication

Design

Research Cycle

Use of diagrams



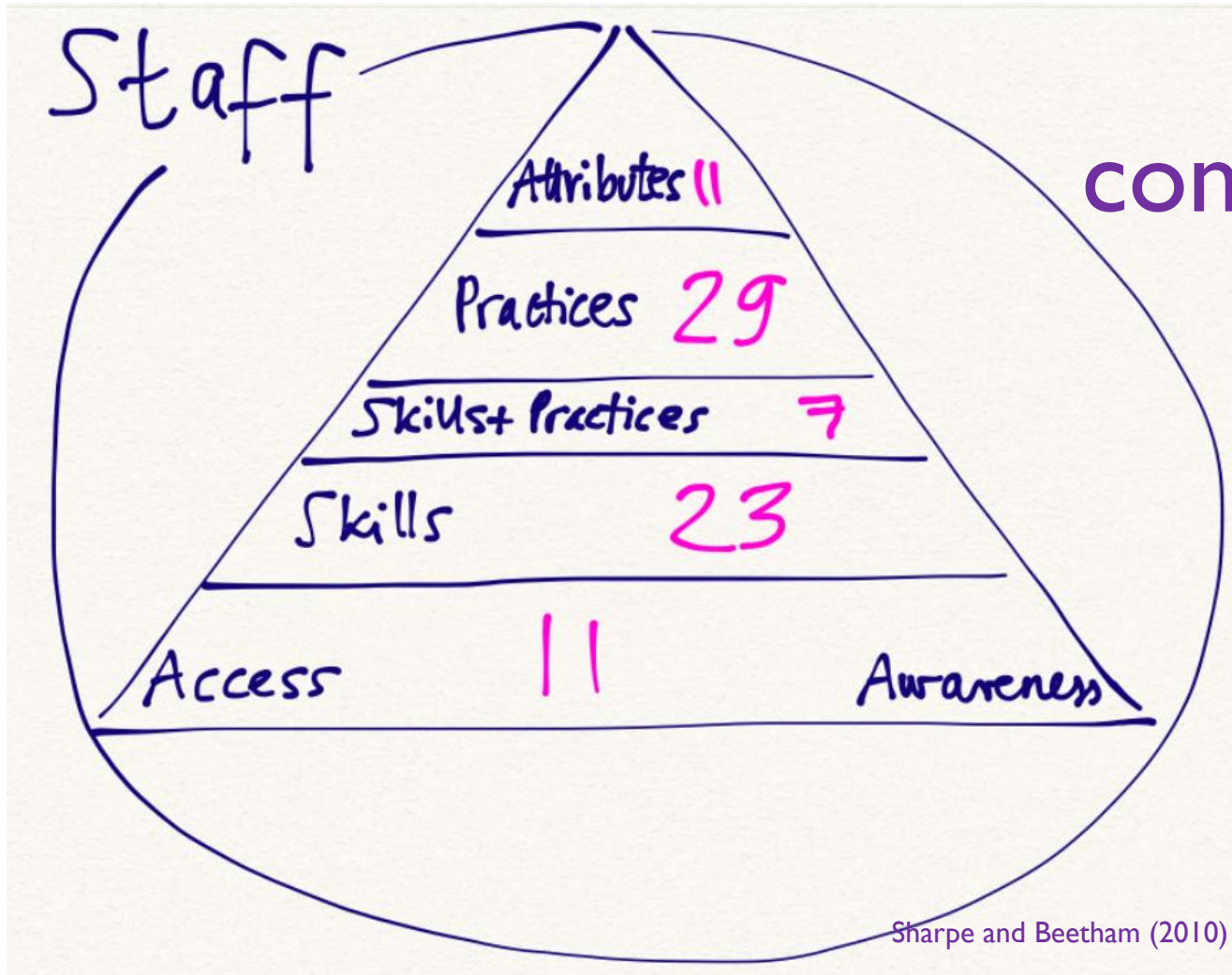
Reporting

Data Collection

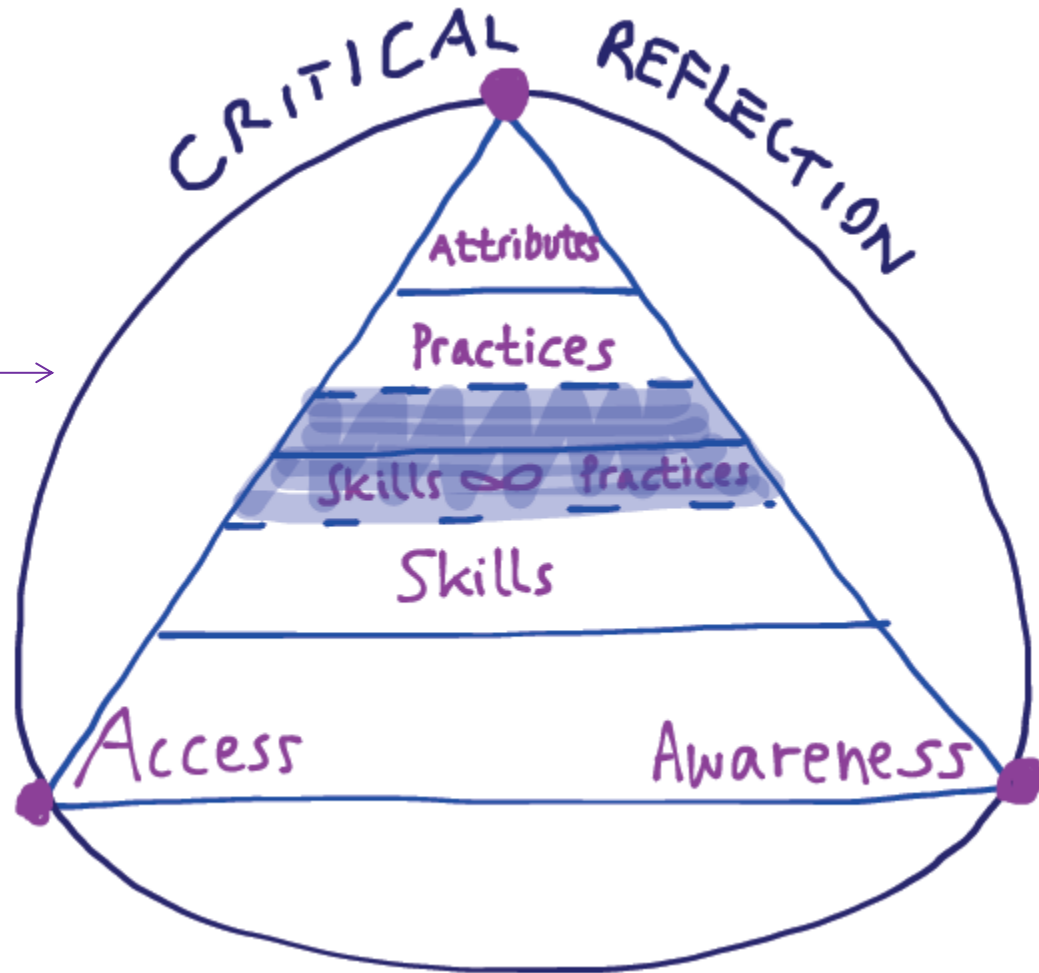
Data Analysis

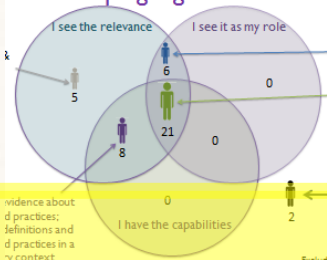


and more diagrams...



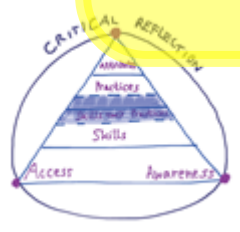
... leading to framework development





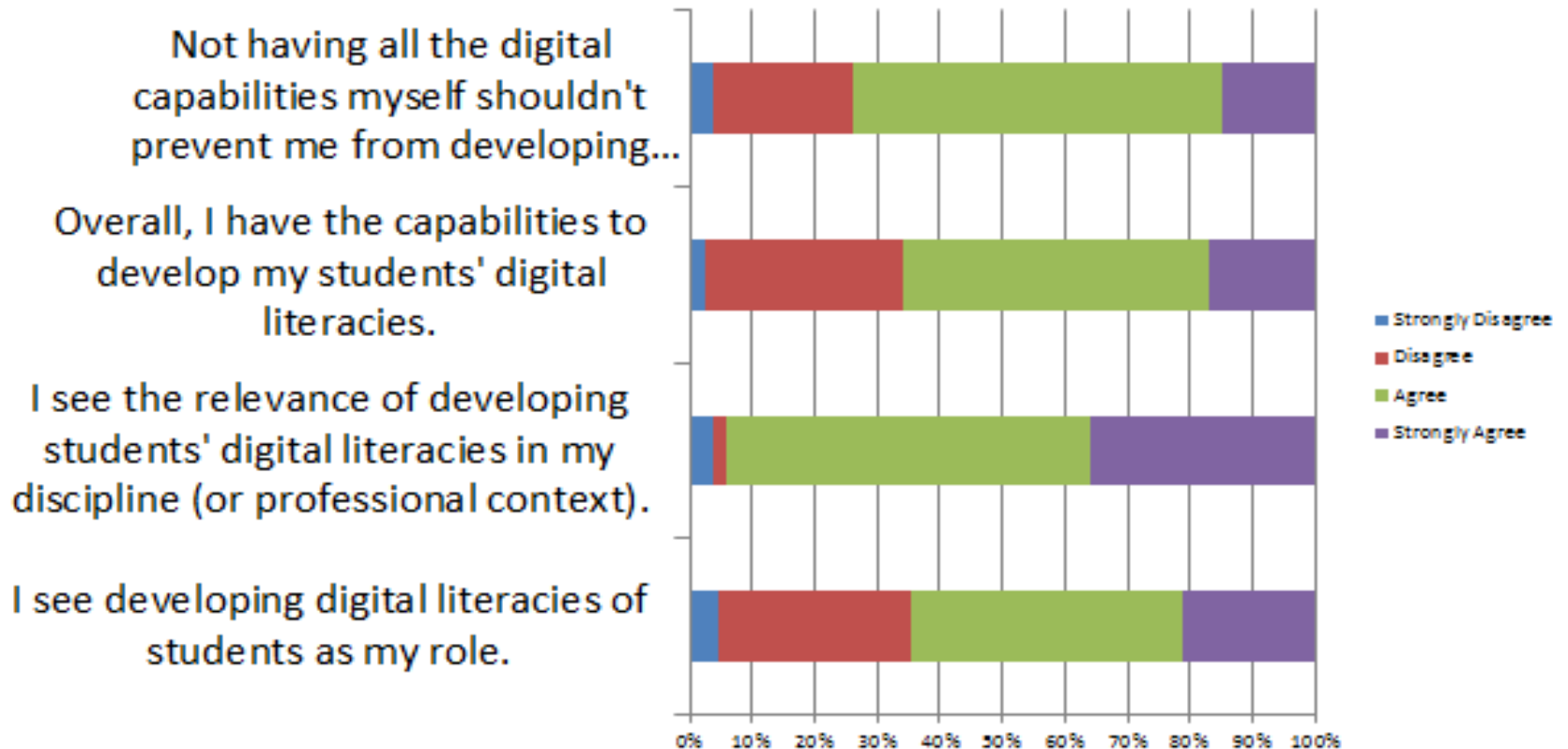
Research Cycle

Use of diagrams



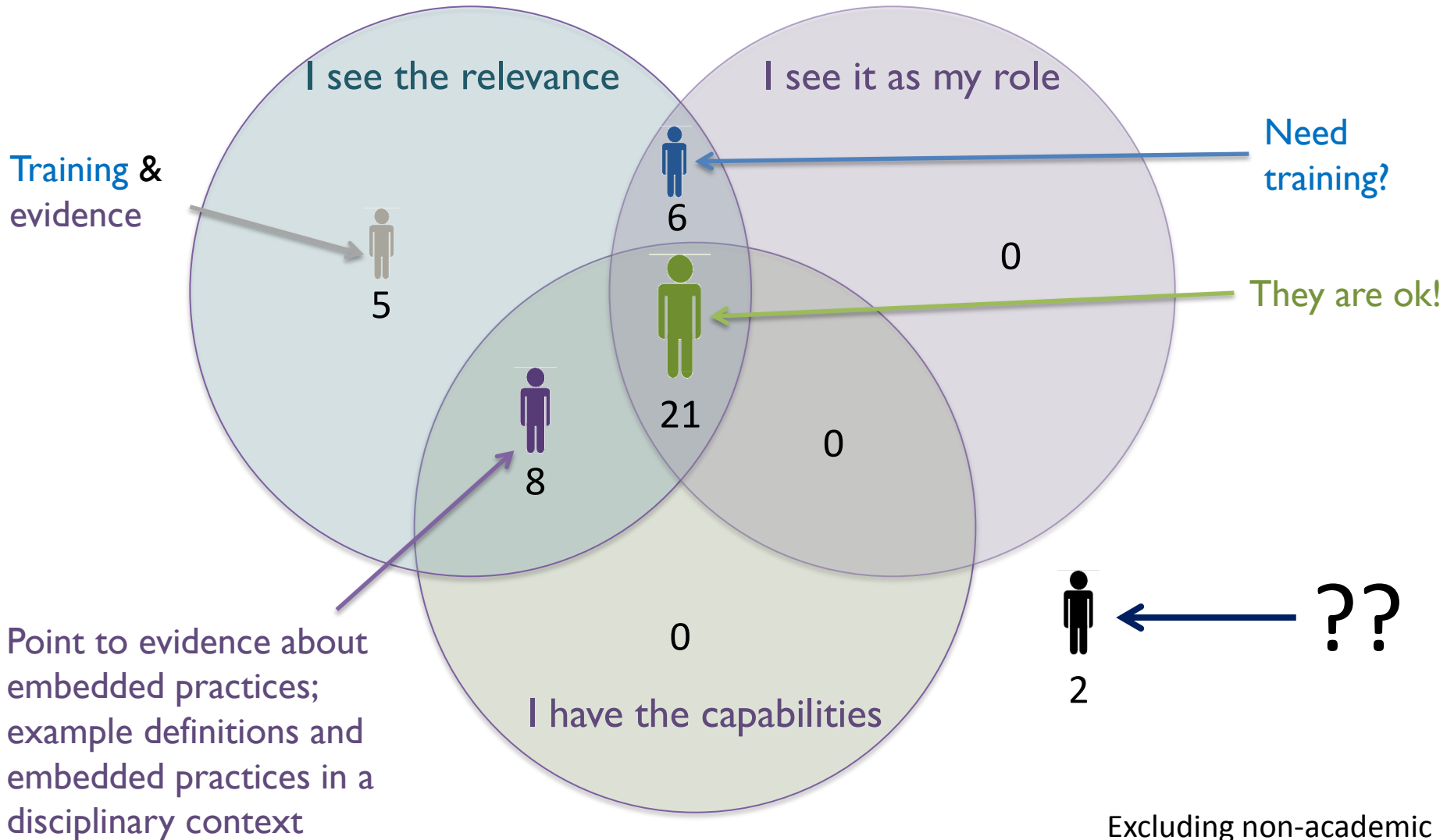
Dissemination – from charts to ...

Perspective on developing digital literacies of students

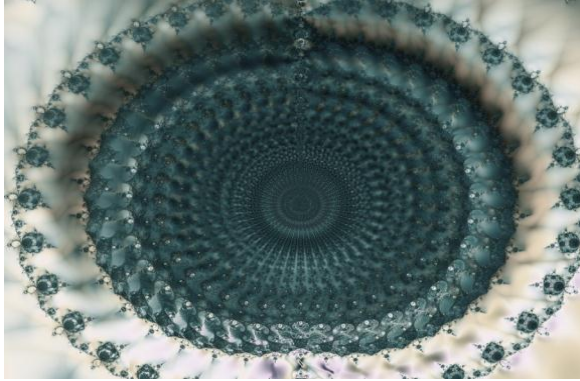


Frequency, n=107

to ...infographics



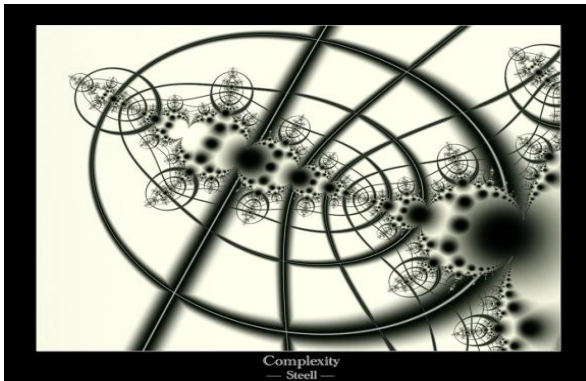
Reflecting on our use of visuals, they were:



conscious



natural



necessary



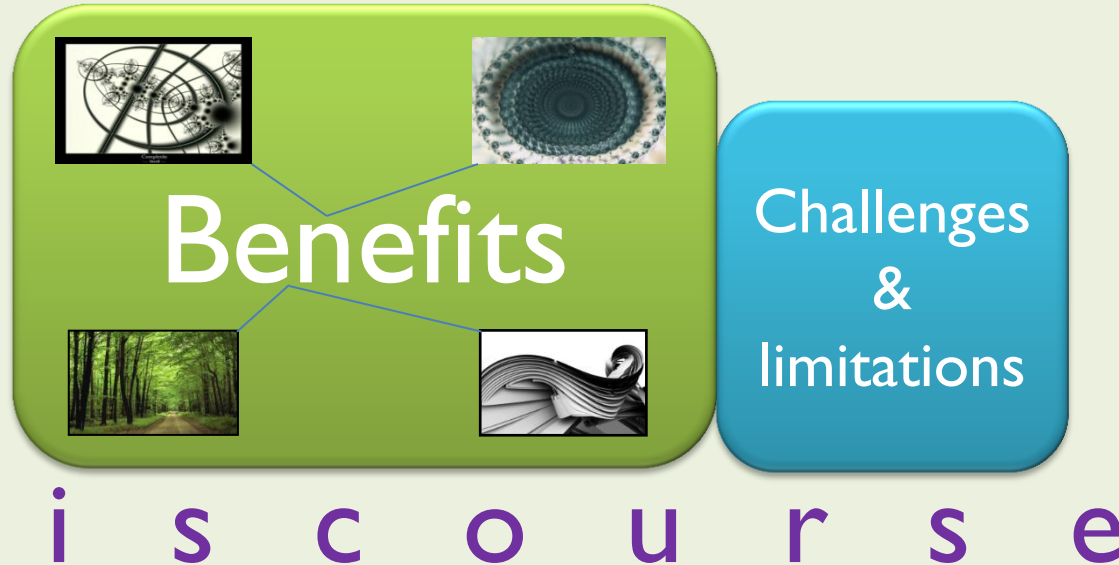
emergent

Discussion

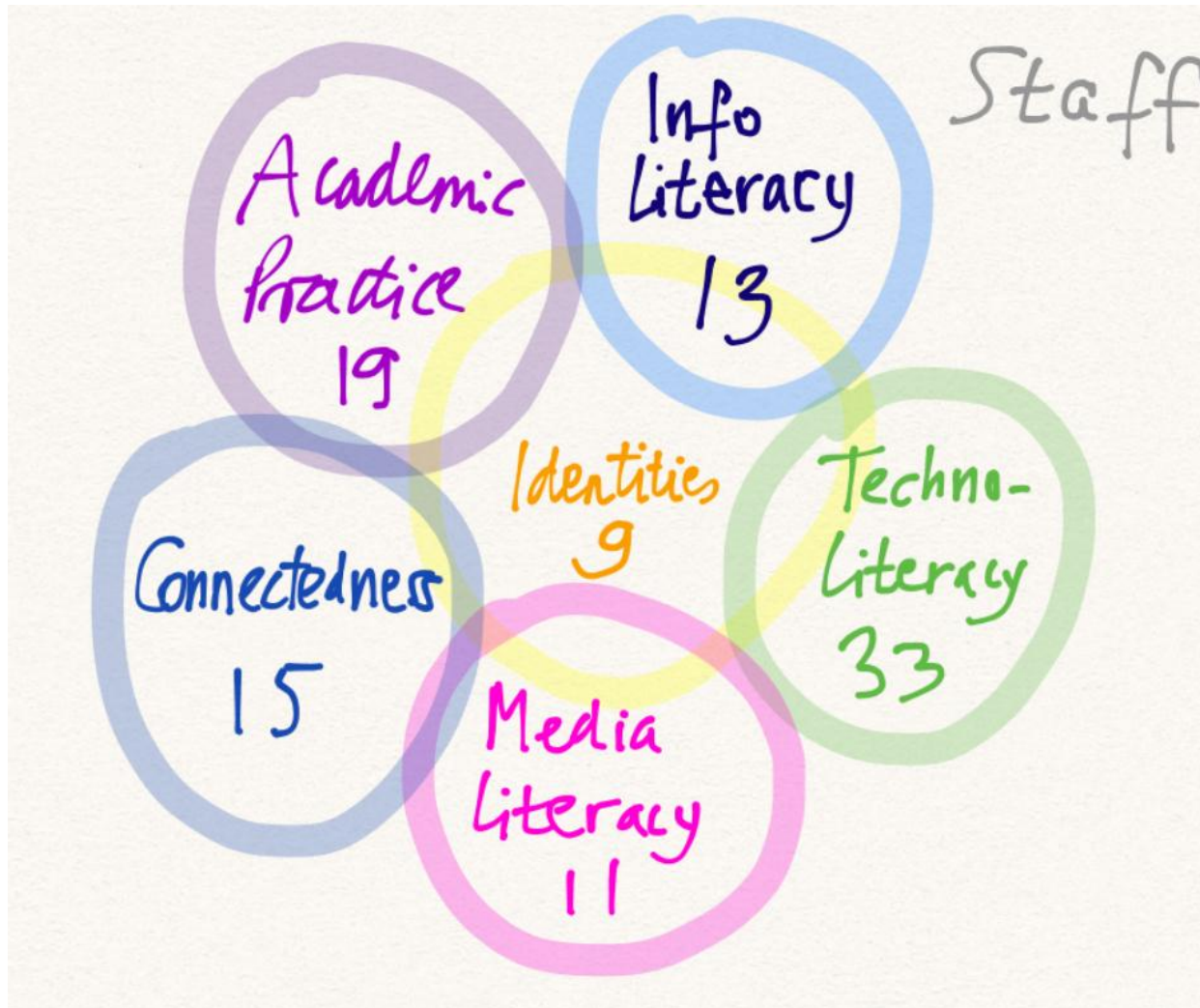
- Can diagrams (or other visual representations) be suitable tools to use in your own practice?
- What are the merits and limitations of visual approaches in supporting your critical reflection on your own perceptions and practices?

Conclusion

Diagrams



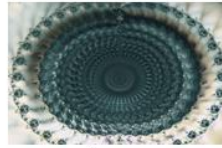
Graphic > < Digital



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- Powell S. S., Varga-Atkins, T.** (2013) '[Using visual metaphors to promote critical reflection on digital practices and perspectives](#)': Workshop Guidance
- Umoquit, M., Tso, P., Varga-Atkins, T., O'Brien, M., & Wheeldon, J.** (2013). Diagrammatic Elicitation: Defining the Use of Diagrams in Data Collection. *The Qualitative Report*, 18(60), 1–12.
- Varga-Atkins, T and O'Brien M.** (2009) [From drawings to diagrams: maintaining researcher control during graphic elicitation in qualitative interviews](#). *International Journal of Research and Method in Education*, vol. 32(1), April, 53-67

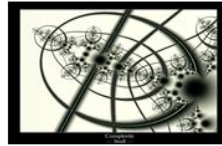
Image credits



conscious



natural



necessary



emergent

- Emergent = waves by Reza Ali – <http://www.syedrezaali.com/blog/?p=1214>
- Natural = a forest = <http://www.layoutsparks.com/1/213309/green-forest-natural-road.html>
- Conscious: “The mind of Mr Soames”
<http://controlv.deviantart.com/art/The-Mind-of-Mr-Soames-268423113>
- Necessary: fractal art <http://steell.deviantart.com/art/Complexity-18857076>

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