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Exploring the role of multimodal artefacts (PPT slides made by students) in preparing to discuss theory/practice relations in academic reading circles

Judith Gorham

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Aims of my talk

- Re-thinking pre-sessional English: academic reading circles
- Understanding how the preparation of visuals contributed to building knowledge of theory + practice
- Considering slides from two reading circles:
    1. week 2: Intercultural groupwork
    2. week 3: Sponge City (a way for cities to absorb excess rainwater through green spaces)
- Using semantic gravity (Legitimation Code Theory, LCT) to analyse the slides

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Needs analysis: talking to lecturers

"When students read academic texts, they don't see the theory and how it's being applied in context. They struggle to think about applying the theory to a different context."

Business lecturer

"Some students remain silent in tutorials and would benefit from more confidence/willingness to interact with their peers and lecturer."

Actuarial Science lecturer

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Academic Reading Circles for building knowledge about theory

"the use of reading to build knowledge of and about theory, therefore, acquiring the threshold concept of 'theory knowledgeability'" (Cowley-Haselden 2020a)

"EAP pedagogy could benefit from a greater focus on reading. Not just reading as an aid to writing, but, the use of reading as social practice to build knowledge." (Cowley-Haselden 2020b)

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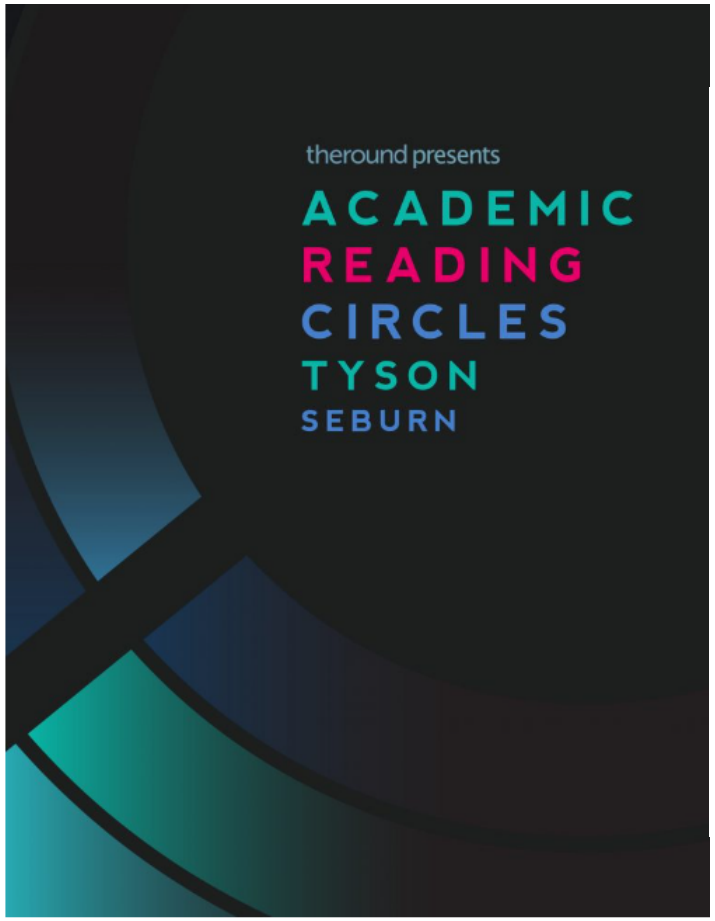
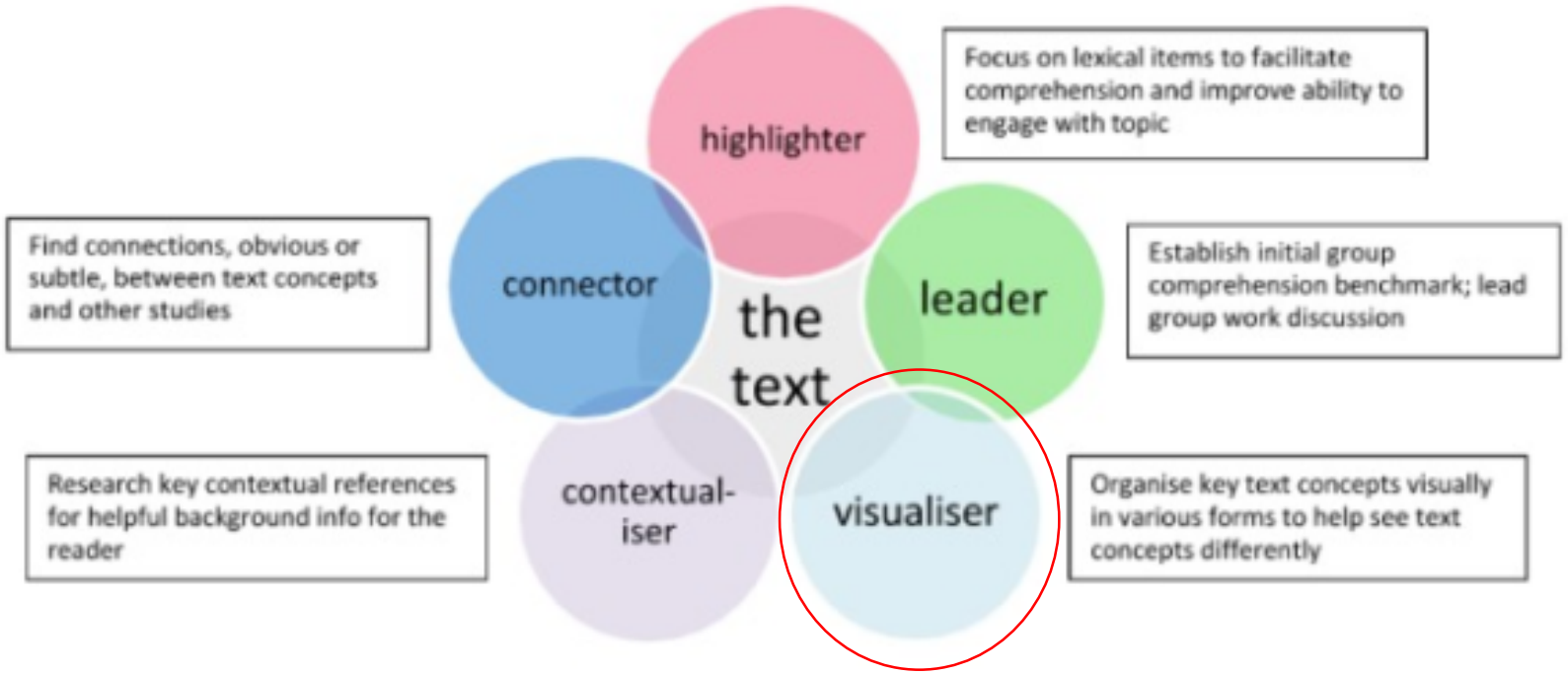
Academic Reading Circles





Tyson, 2016, p.16

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ARCs in our PSE

Task Rationale:

- to develop and practise strategies for reading academic texts
- to explore the link between theory and practice
- to use oral interaction to think critically
- to practise finding connections within a text and between the text and outside of it

Academic Reading Circle (ARC) Roles

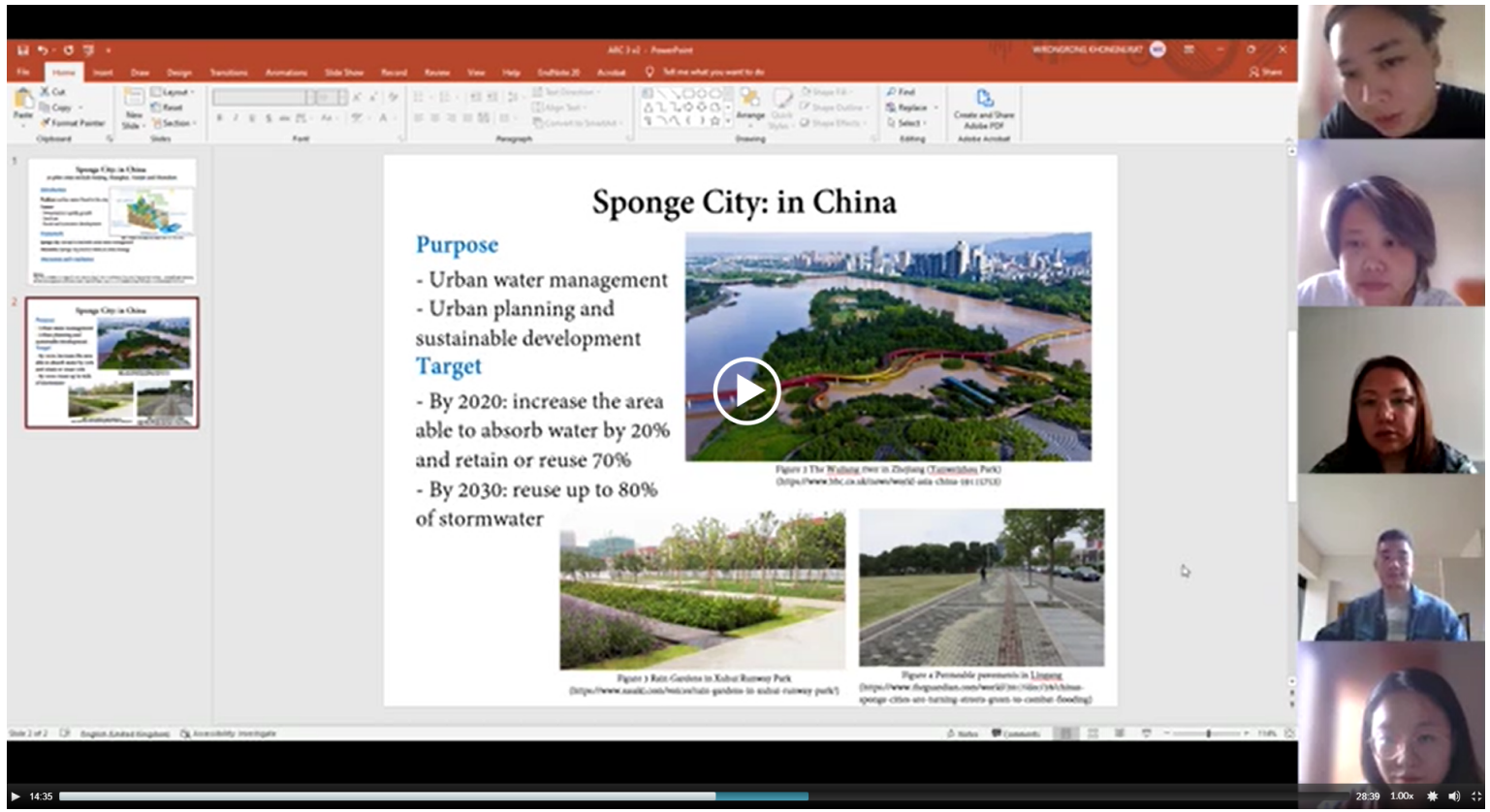
1. **discussion leader**: Create 3 discussion questions to help the group understand the text. Create 3 discussion questions to help the group discuss how theory relates to practice
2. **Connector**: Consider ways that points in this text connect to information from other texts, familiar events + personal experiences.
3. **Visualiser:** create or source visuals of two different types that help to understand theory/practice in the text.
4. **Highlighter**: identify 5 key noun phrases. Identify language which indicates writer stance.
5. **Contextualiser**: identify 3 contextual references used by the writer in the text (which are not explained in the text), research them and be prepared to explain them.

adapted from Seburn, 2016

How does the role of the visualiser contribute to the discussion?

ARCs in our PSE

Week 1	Gender + covid
Week 2	International groupwork in higher education
Week 3	Sponge City
Week 4	Zero Waste



Chan, F. K. S., Griffiths, J. A., Higgitt, D., Xu, S., Zhu, F., Tang, Y. T., ... & Thorne, C. R. (2018). “Sponge City” in China—a breakthrough of planning and flood risk management in the urban context. *Land use policy*, *76*, 772-778.

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Sponge City: in China

30 pilot cities include Beijing, Shanghai, Tianjin and Shenzhen

Introduction

Problem: surface water flood in the city

Causes:

- Urbanization rapidly growth
- Land use
- Social and economic development

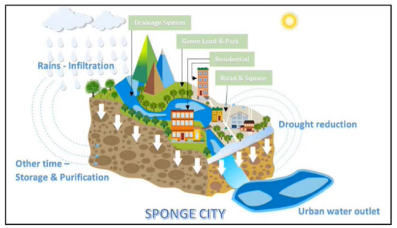

Figure 1 Diagram of the Sponge City concept (Chan, F.K.S., et al., 2018)

Framework

Sponge city: concept to deal with urban water management

Discussion: Sponge city practice relates to urban strategy

Discussion and Conclusion

Reference

Chan, F.K.S., Griffiths, J.A., Higgitt, D., Xu, S., Zhu, F., Tang, Y., Xu, Y., and Thorne, C.R. (2018), '"Sponge City" in China—A breakthrough of planning and food risk management in the urban context', *Land Use Policy*, 76, pp. 772-778. Available at: https://doi.org/10.1016/j.landusepol.2018.03.005

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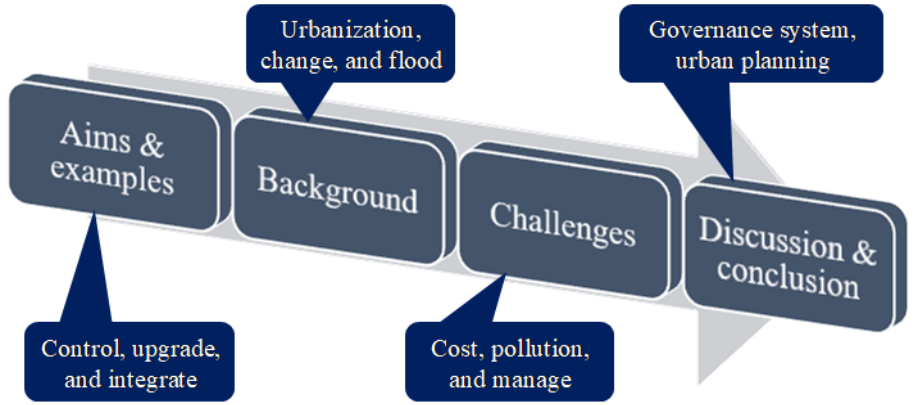
Structure of article



Academic Reading Circle of Group 2, Class G

Landuse Planning

- The process of regulating the use of land by a central authority.
- promote more desirable social and environmental outcomes
- a more efficient use of resources.

2. The sponge city concept: background and commonality with other similar practices

Since the "Open Door Policy" was promoted in the late 1970s in the People's Republic of China (PRC), the country has experienced unprecedented urbanization and socio-economic growth. The urban population has increased some four-fold compared with the 1978 (172.45 million) to approximately 771.16 million in 2015 (NBSC, 2016). A large urban population, the rate of urban population is 56.10% in 2015 that has developed to support centralised industrial and commercial developments (Guan et al., 2018; NBSC, 2016). In such a rapid process of urbanization, land-use change from natural landscape (e.g. green spaces, vegetation areas, forestry and soil surfaces) to urban land-use (e.g. commercial, residential and industrial) has been unprecedented. For example, 26.3% land-use change from the rural areas (including forest and vegetated lands) to urban areas from 1979 to the 2000s in the Pearl River Delta (Yeung, 2010). This drastic loss in natural capital (in the form of ecosystem services and surface water-bodies) equates to 10.4% of and across 16 cities in the Yangtze River Delta from 2000 to 2010 (Xu et al., 2014). In this time, previously semi-rural environments have been transformed by urban development into combinations of roads, buildings and various other forms of urban infrastructure.

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A city that breathes(examples)

1.Sanya Mangrove Ecological Park

In the past, this place was very polluted and rubbish could be seen everywhere

How do these texts/images support knowledge building about theory – practice?
(Do we need to intervene in this?)

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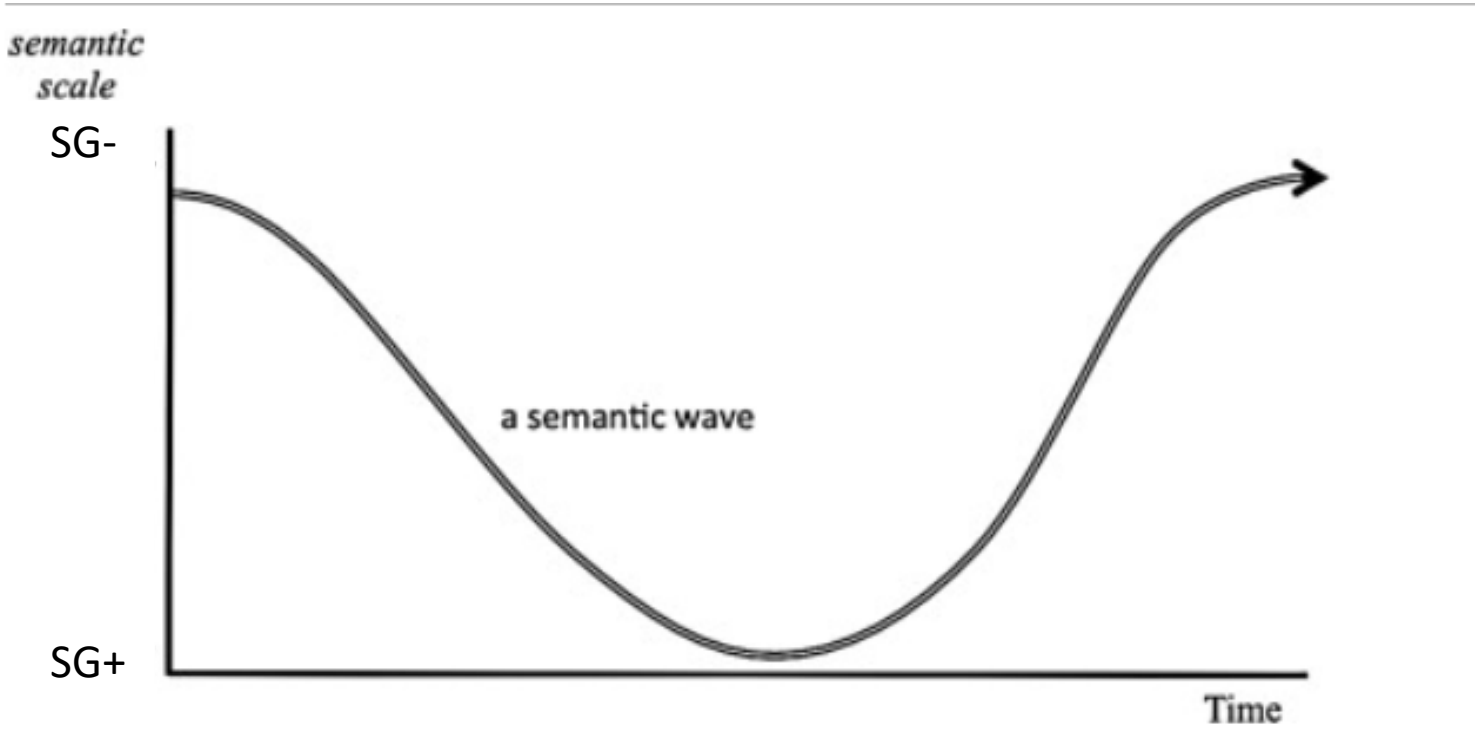
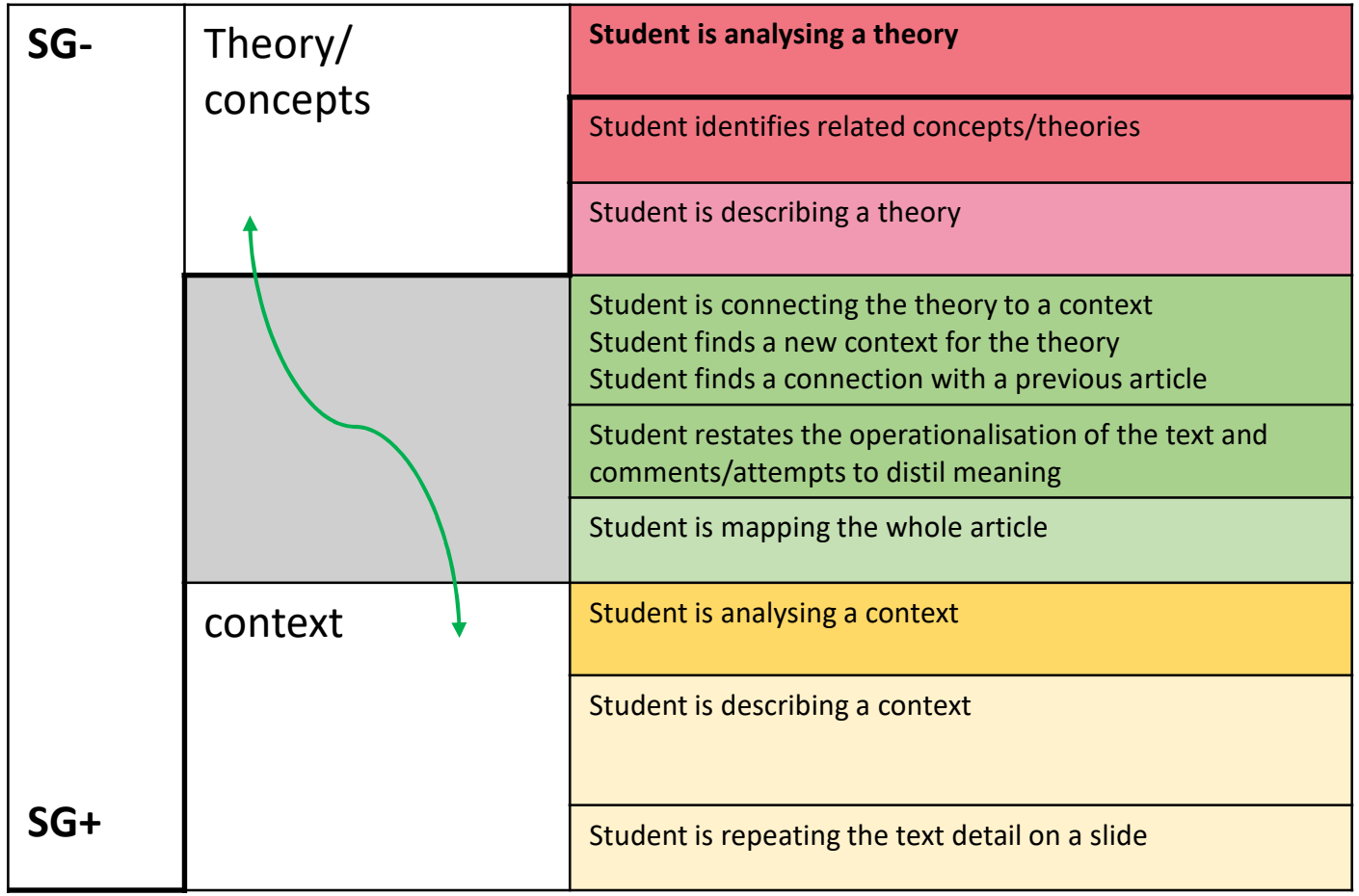
Legitimation Code Theory (LCT): Semantic Gravity



Macnaught et al., 2013

Translation device

SG-	Abstraction
	Generalisation
	Judgement
	Interpretation
	Summarising description
SG+	Reproductive description

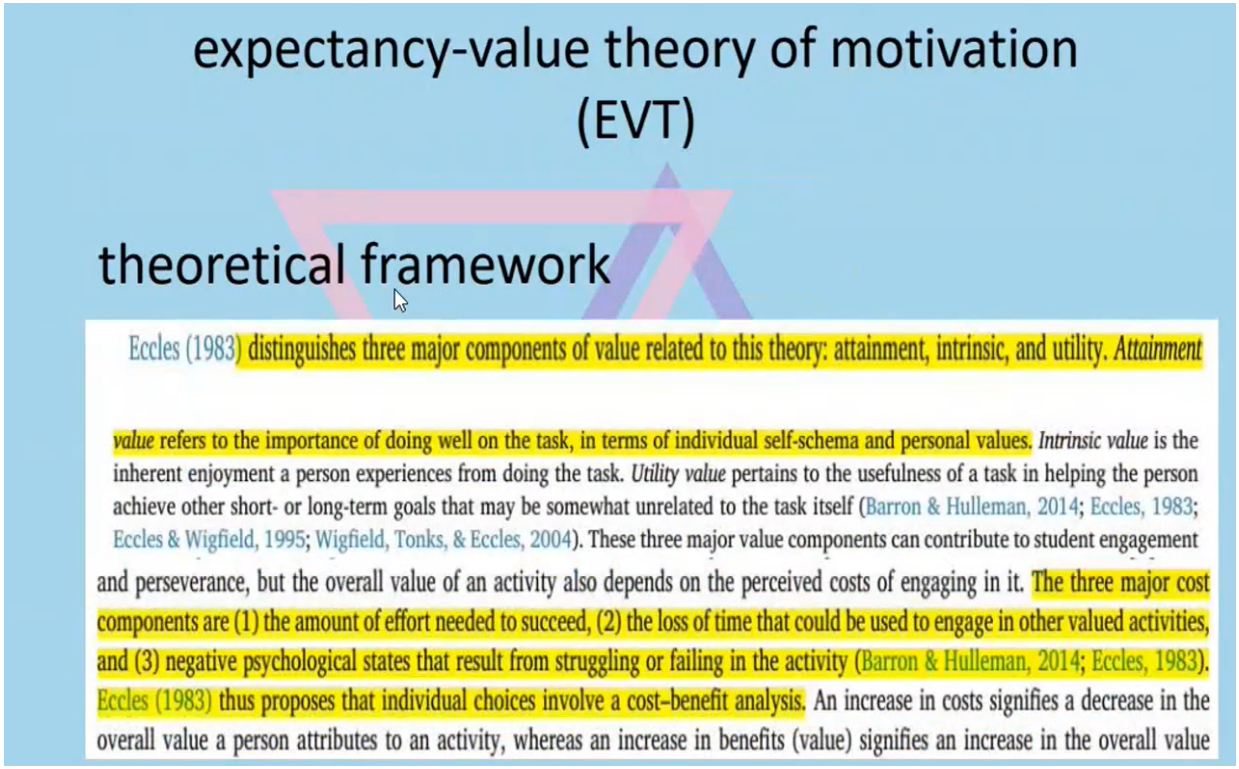


Maton, K. 2013

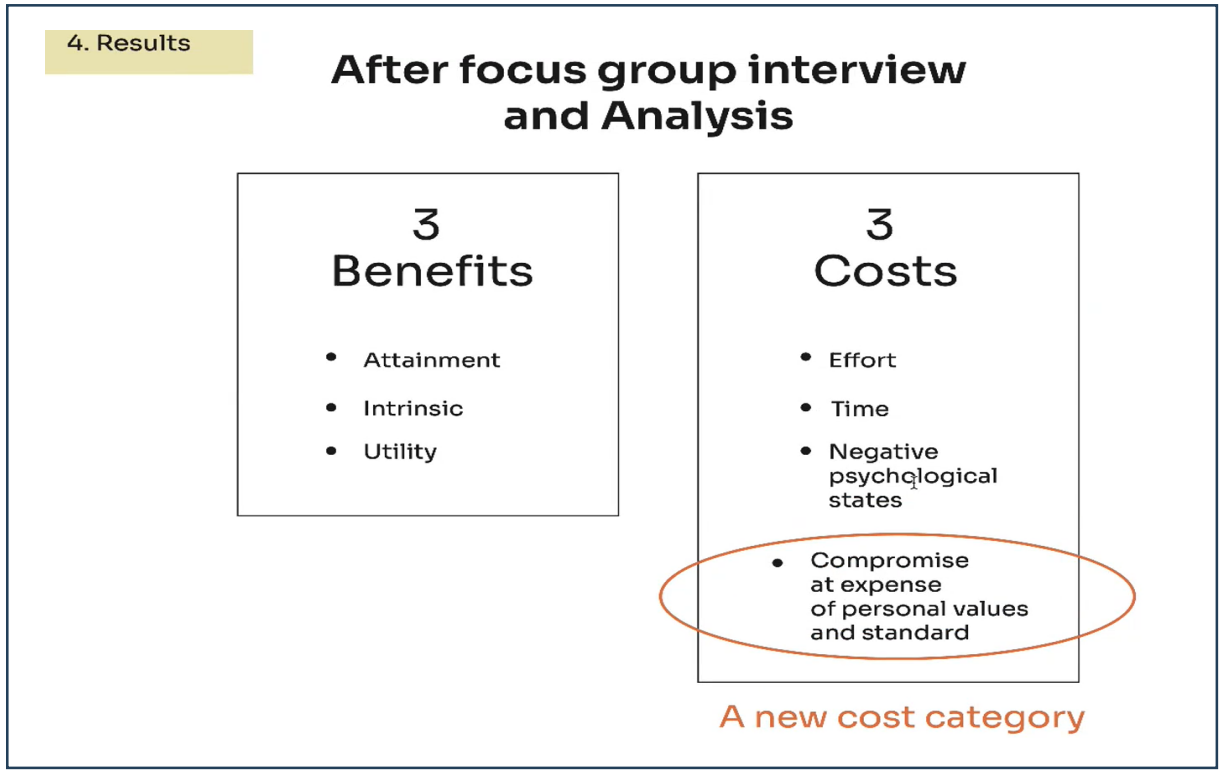
SG-		Coded content	visual	text
	Theory/ concepts	Student is analysing a theory	Representing the theory in diagram form (may be from the article) AND attempting to distil key ideas	attempting to distil key ideas/commenting critically Questions that lead the group to think critically around the theory
		Student identifies related concepts/theories	Identifying other sources and describing related concepts	
		Student is describing a theory	Representing the theory in a diagram form (may be from the article) using coloured lines to map structure of article, circling the parts where theory is discussed	Highlighting the theory in the original text Writing the name of the theory
		Student explores the theory in context /finds a new context for the theory /finds a connection with a previous article	Find images and uses own words	Questions that lead the group to think critically around the theory and think critically about the limitations for practice
		Student restates the theory in context and comments/attempts to distil meaning	Breaks the concept down (as article) and distils key ideas	
		Student is mapping the whole article	Mapping the whole article with no emphasis on any part	
	context	Student is analysing a context	Provides information about another context Blocks of highlighted text accompanied by own notes	Questions that ask about data from this context Questions that ask about another context
SG+		Student is describing a context	Putting a graph/diagram from the article on a slide Illustrative photos/images from google	
		Student is repeating the text detail on a slide		Blocks of highlighted text

Week 2

Student is describing a theory



Student is analysing a theory



Poort, I., Jansen, E., & Hofman, A. (2019). Intercultural group work in higher education: Costs and benefits from an expectancy-value theory perspective. *International Journal of Educational Research*, *93*, 218-231.

Week 4

Student is attempting to distil key ideas

Sponge City

A new urban construction model for flood management

- Urban flooding
- Water resources shortage
- The urban heat island effect

Absorbing and capturing rain water

↓

Repurposed for irrigation and for home

Picture and Info from www.wikipedia.org/wiki/Sponge_city

1. Introduction

Urban flooding has become a major issue in China, but there is uncertainty about how to implement the most recent guidance for urban-drainage infrastructure to address the problem. The Chinese National Government is promoting the "Sponge City" concept and is funding the development of demonstration projects for concept in thirty pilot cities across the country (including megacities of Beijing,

Student finds a new context for the concepts

Sponge City: in China

Purpose

- Urban water management
- Urban planning and sustainable development

Target

- By 2020: increase the area able to absorb water by 20% and retain or reuse 70%
- By 2030: reuse up to 80% of stormwater

Figure 2 The Wujiang river in Zhejiang (Yanweizhou Park) (https://www.bbc.co.uk/news/world-asia-china-59115753)

Figure 3 Rain Gardens in Xuhui Runway Park (https://www.sasaki.com/voices/rain-gardens-in-xuhui-runway-park/)

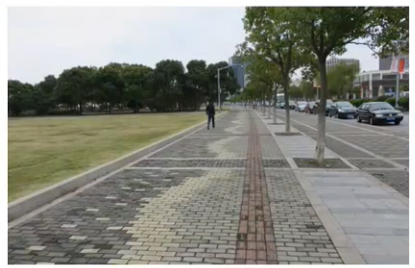


Figure 4 Permeable pavements in Lingang (https://www.theguardian.com/world/2017/dec/28/chinas-sponge-cities-are-turning-streets-green-to-combat-flooding)

Chan, F. K. S., Griffiths, J. A., Higgitt, D., Xu, S., Zhu, F., Tang, Y. T., ... & Thorne, C. R. (2018). "Sponge City" in China—a breakthrough of planning and flood risk management in the urban context. *Land use policy*, *76*, 772-778.

group	A		G
Number of students	5		4
Country of origin	Thailand, China, Afghanistan		China
IELTS	5.0 – 5.5		5.5 – 6.5

Coded content	Group A Week 1	Group A week 2	Group A week 3	Group A week 4		Group G week 1	Group G week 2	Group G week 3	Group G week 4
SG-		XXXXX	X	XXX					
SG-		X	XXXXXXXX			X		X	X
SG-		XX				XX	XX	X	
		X				X	X	XXXXXXXX	
	X								
	XX			X			XXXXX	X	X
SG+	X			XXXX		XXXXXX	XX		
SG+				XXX			XXXX		
SG+	XXXX	XXX		XX			XXXXXXX	XX	XXXXX
	8	12	9	13		9	20	13	7

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Summary and next steps

- The best slides are not the most visually attractive, but where the student has used the visuals/text to think around the academic article and the research it talks about.
- Slides are more likely to be SG- and SG+, not a combination.

1. How do the slides support the discussion?
2. How does this differ in online discussions?
3. How does the approach to slide preparation indicate the approach to discussion?
4. How can this way of working (students making text/image artefacts) help build knowledge outside of academic reading circles?

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Cowley-Haselden, S. (2020a), 'Analysing Discourse in the Liminal Space: Talking Our Way Through It' in JA Timmermans & R Land (eds.), Threshold concepts on the edge, Brill Sense, Leiden.

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Georgiou, H., Maton, K., & Sharma, M. (2014). Recovering knowledge for science education research: Exploring the "Icarus effect" in student work. *Canadian Journal of Science, Mathematics and Technology Education*, *14*, 252-268.

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Maton, K. (2013). *Knowledge and knowers: Towards a realist sociology of education*. Routledge.

Seburn, T. (2016) Academic Reading Circles, theround.

Week 2

Student is analysing a context

Student is describing a context

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Answer from connector

intercultural group work

- different country
- different English-level
- different major
- different University
- different gender

Nationality

- China
- Italy
- Korea
- Japan

English level

- English-speaking country
- non-English-speaking country

Major

- Accounting
- Engineering
- Science
- Arts

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Answer from visuliser

- reduce the cost of IGW
- increase its benefits by creating a safe, stimulating effective learning environment when we first participate in it

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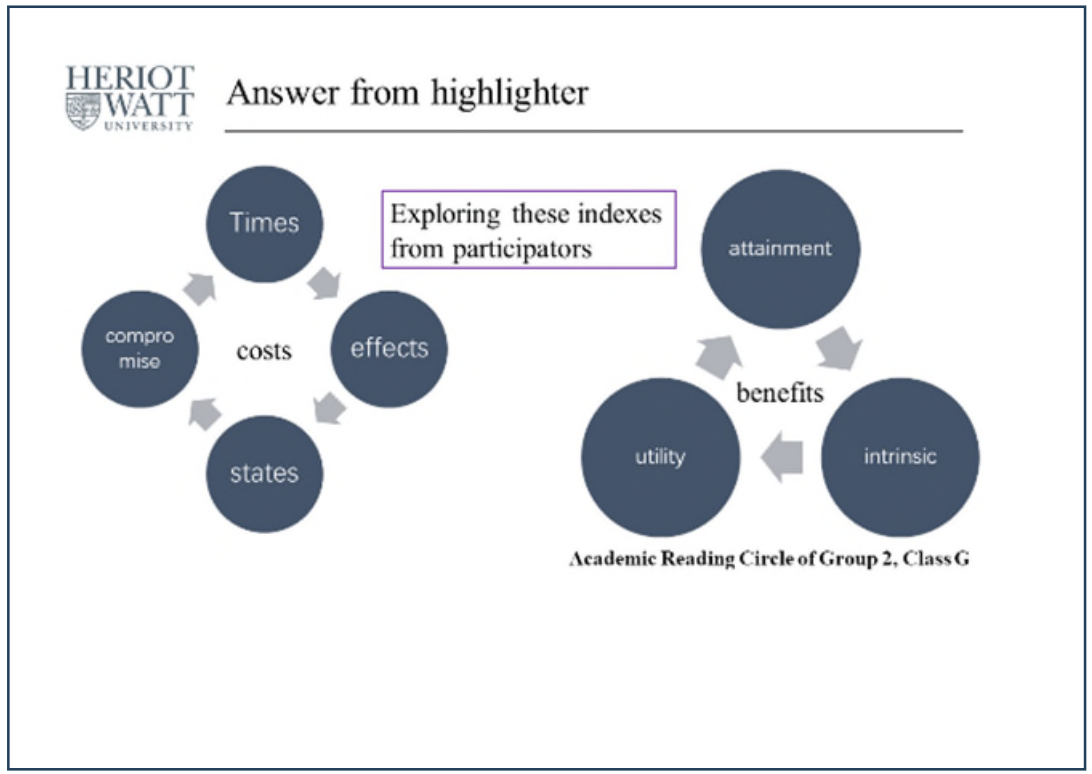
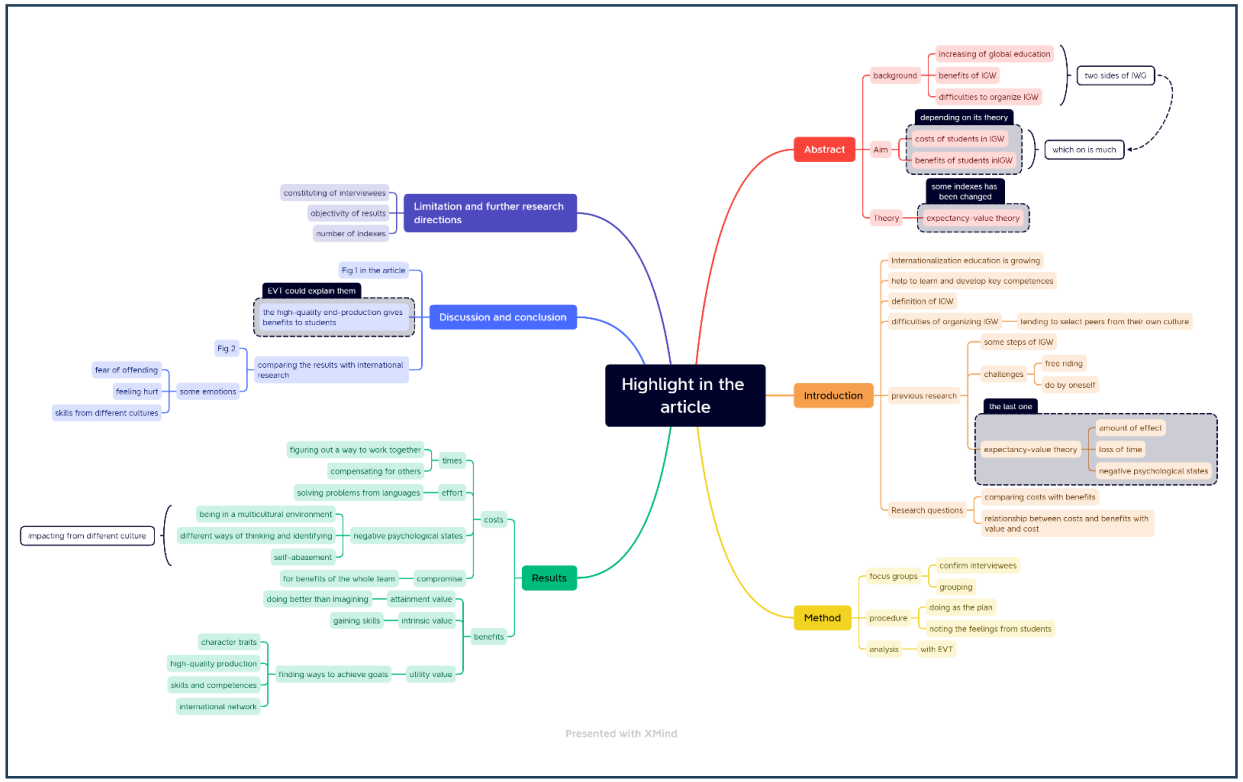
Week 2

Student is describing a theory



Student is mapping the whole article



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