Information experiences in the lifeworlds of female engineering undergraduates

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Background

Women are in the minority on engineering degree courses (HESA, 2023).

Engineering education is heavily masculinised (Secules, 2019).

Gender is an under-explored variable in LIS research (Urquhart & Yeoman, 2010).

Emotional experiences impact both information behaviour and learning (e.g. Given, 2007).

Aim: to explore information experiences within the lifeworlds of female engineering undergraduates.

Research questions:

1. How does the lived experience of being a woman in an undergraduate engineering classroom shape the information behaviour of women students?

2. How does the gendered learning environment of an Engineering classroom interact with women's information literacy development?

3. What are the aims and motivations of female engineering students when engaging with information?

4. What role does affect play in women engineering students' information experiences?

5. Is personal epistemology, specifically Women's Ways of Knowing (WWK), a useful lens through which to examine women engineering students' information experiences?

Key concepts (1)

Lifeworld

"the concrete and lived, but often disregarded, existence in the world" (Dahlberg et al., 2008, p. 35).

Information experience

"the way in which people experience or derive meaning from the way in which they engage with information and their lived worlds as they go about their daily life and work" (Bruce et al., 2014, pp. 5-6).

Key concepts (2)

Personal epistemology

"how individuals come to know, the theories and beliefs they hold about knowing" (Hofer & Pintrich, 1997).

Information seeking, evaluation and use may all be influenced by epistemological beliefs (e.g. Whitmire, 2003, 2004).

Women's Ways of Knowing

Model of epistemological development derived from a landmark women-only study in educational psychology (Belenky et al., 1996/1987).
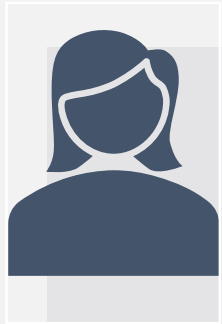
Literature review: Engineering students
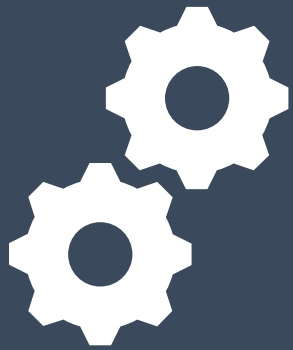
- LIS research on engineering students is fragmented (Mercer et al., 2019).

- Engineering students often positioned as using inappropriate information behaviour (e.g. Leckie & Fullerton, 1999).

- Student information behaviour mirrors that of professional engineers (Dommermuth & Roberts, 2022; Madden et al., 2018).

- Focus is on the application of information rather than the research process (Fosmire, 2007; Mercer et al., 2019).

- May be unaware of scholarly resources (Denick et al., 2010; Ercegovac, 2009; Makhafola & Van Deventer, 2020; Mentzer & Fosmire, 2015).

- Information literacy and behaviour becomes more complex and sophisticated as students progress (Baer & Li, 2009; Douglas, Epps, et al., 2015; Hagiwara et al., 2022; Talikka et al., 2018; Yu et al., 2006).

- Most LIS studies are all- or majority-male.

Literature review: Women students

- LIS research lacks attention to gender and produces few consistent findings (Urquhart & Yeoman, 2010).

- Where gender is included in LIS studies it is rarely an explicit focus of the research questions.

- Small amount of evidence that women self-assess their IL skills lower than men (Baro & Fyneman, 2009; Hargittai & Shafer, 2006).

- Women may self-assess lower but perform higher on IL competency measures, but this evidence is inconclusive (e.g. Maghferat & Stock, 2010; Nierenberg & Dahl, 2021; Pinto et al., 2020).

- Intersectional identities and sociocultural influences are rarely considered (some rare examples include Mortimore & Wall, 2009 and Folk, 2018, 2019).

Gaps in literature review

Very little research considers women's experiences as an explicit research focus.
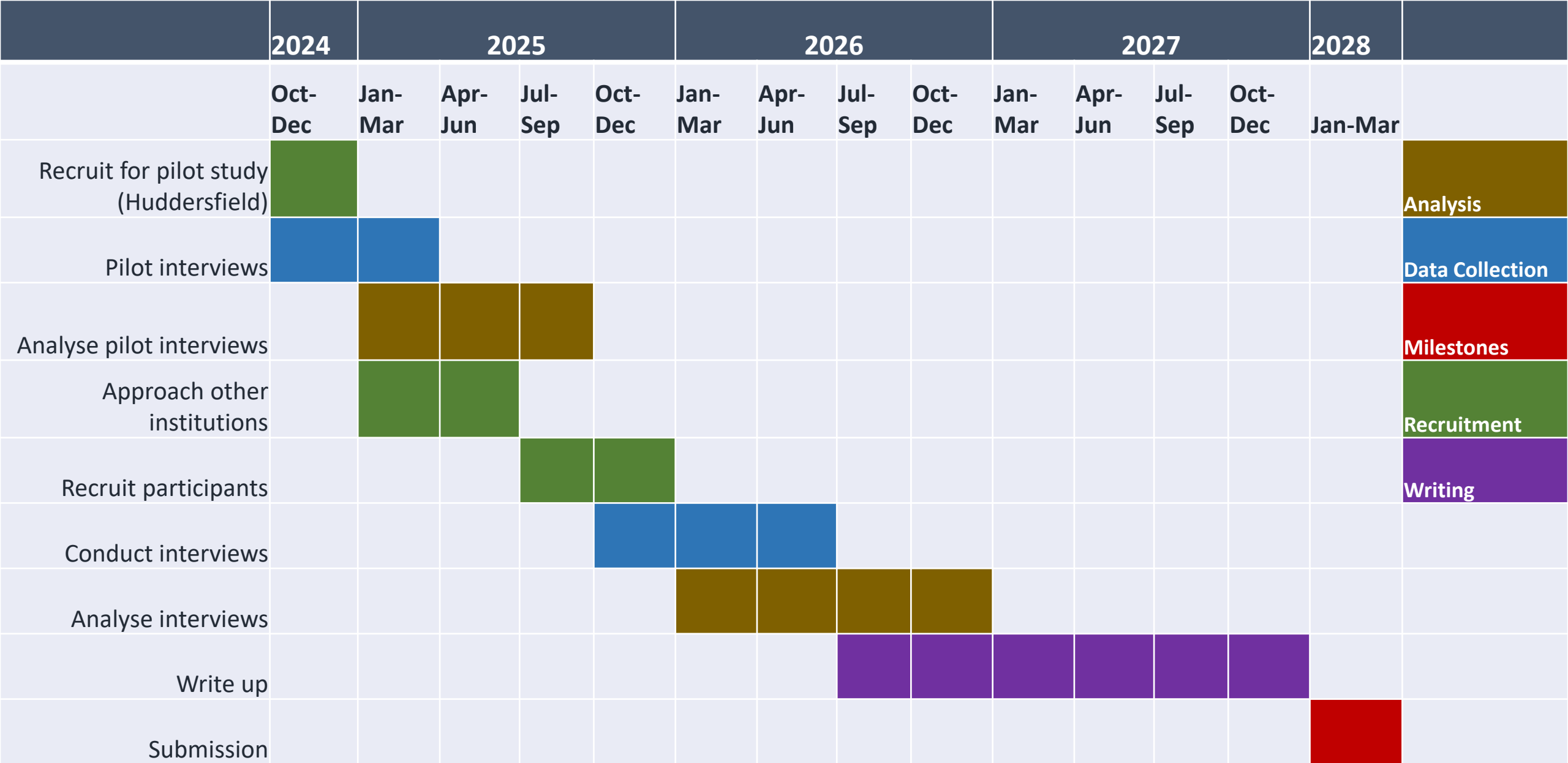
Most research on engineering students features mostly, if not all, male participants.

The literature in both areas is dominated by quantitative methods.

Information experience is an under-utilised approach in research on students in higher education.

Simplified research timeline

Data collection

Recruit 15-20 female engineering undergraduates from 3-4 universities.

Participants to keep a diary (format of their choosing) of their information experiences prior to interview.

In-depth, narrative interviews, either online or face-to-face.

Phenomenological analysis of diary materials and interview transcripts/notes.

Benefits of the research

Participants

Institutions

LIS evidence base

Me
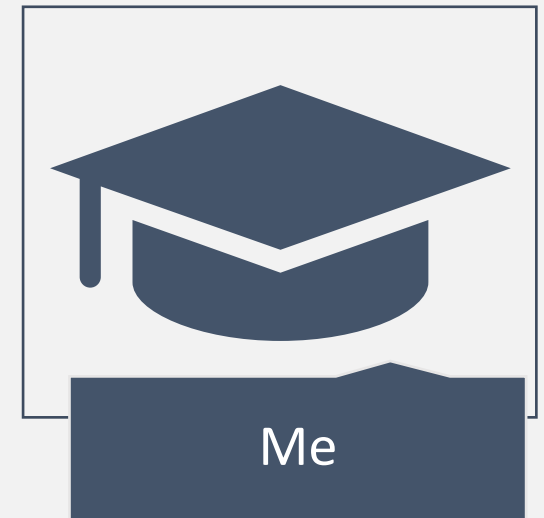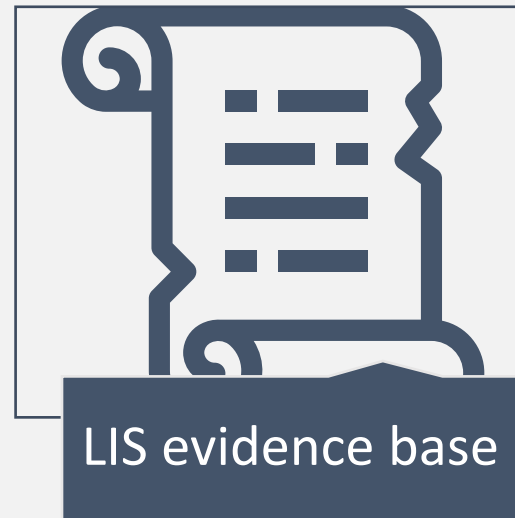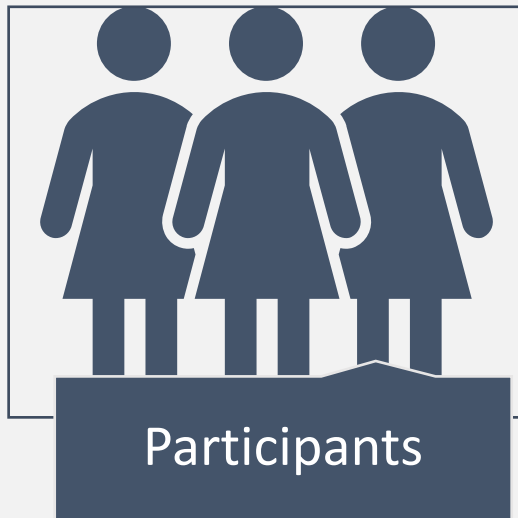
Questions?

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