“IT’S NOT MY JOB TO TEACH WRITING” – ACTIVITY THEORY ANALYSIS OF [INVISIBLE] WRITING PRACTICES IN THE ENGINEERING CURRICULUM

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What do I mean by ‘invisible’?

Writing practices are invisible because:

- When the writing champion moves on...the practices disappear
Invisible because

The practices are developed in a range of subjects, but no one knows who is doing this.
Invisible because

Many engineering academics struggle to see writing as part of their subjects
Why did I start investigating this?

Lamentations about engineering graduates’ written & spoken communication since forever (nationally & internationally)

Extensive literature about interventions that work – for a time

Yet nothing seems to last
What’s so special about my research?

- So far most of the evidence is anecdotal
- Most research investigates interventions into student writing/behaviours
- My research helps to understand the perspectives of engineering academics
“Writing is a central activity whilst at university...as it is often core to teaching and assessment in most subjects. It is what students do, it is what is required of them, and is therefore an integral part of how students make sense of the world of university and higher education”

(Appleby, Roberts, Barnes, Qualter & Tariq, 2012)
The research questions

Why is writing still so invisible in the engineering curriculum?

What is in the context of the engineering curriculum that prevents writing from being an integral practice?

What inhibits engineering academics from seeing the development of writing as part of their role as teachers of engineering?
Theory/methodology

Activity theory (AT): theoretical perspective & methodological tool
a way of looking at interactions of participants involved in teaching, learning, assessment & enactment of curriculum
‘zooming out’ to identify tensions
‘zooming in’ with thematic analysis to examine tensions in detail
Elements of activity systems in this study

Subjects: lecturers, students

Objects: artefacts produced by activities

Goals: longer term outcomes of activities

Mediating tools: writing, computers

Community: faculty, university

Rules: assessment & course requirements

Division of labour: who does what
Who? What? Why?

- Engineering academics coordinating a subject (mainly UG) at several Australian universities
- Subject outlines; learning guides; published materials; semi-structured interviews
- Analysing interactions: contradictions; tensions within & between systems
- What do they say? What do they perceive? What do they tell the students? What do the students do?
- What inhibits engineering subject coordinators from developing their students’ writing practices? What are examples of good practices?
- Are there any ‘sustainable’ models of good practice?
Two key tensions:

1. Writing practices are taught differently, practised differently and assessed differently from propositional knowledge.

2. It’s not clear what is meant by “writing practices” : much slippage of terms when participants talk and write about writing.
Writing practices are taught, practised, assessed differently

Development of writing often outsourced

Participants have expectations of the kind of writing students should submit:
“clear, precise, concise,” (Adam, Uni A)

But don’t teach or model this writing often not practised formatively but assessed summatively

YET Propositional knowledge practised in labs & in tutorials
## Summary of Writing Tasks and Practices

<table>
<thead>
<tr>
<th>Participant</th>
<th>Written Assessment Tasks</th>
<th>Practised or Formatively Assessed</th>
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<tbody>
<tr>
<td>Adam</td>
<td>3 Reports 60% weighting</td>
<td>No</td>
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<tr>
<td>Bernice</td>
<td>2 reports 40% weighting</td>
<td>No</td>
</tr>
<tr>
<td>Charlie</td>
<td>Reflective report 55% weighting</td>
<td>Yes</td>
</tr>
<tr>
<td>Damien</td>
<td>Scaffolded writing tasks; 4 reports 70% weighting</td>
<td>Yes</td>
</tr>
<tr>
<td>Eric</td>
<td>Group project 20% weighting</td>
<td>No</td>
</tr>
<tr>
<td>Felicity</td>
<td>none</td>
<td>No</td>
</tr>
<tr>
<td>Garth</td>
<td>none</td>
<td>No</td>
</tr>
<tr>
<td>Harry</td>
<td>3 lab reports: 2 formative, 1 summative 20% weighting</td>
<td>Yes</td>
</tr>
<tr>
<td>Ivan</td>
<td>1 computer report 9%, 1 lab report 10% weighting</td>
<td>No</td>
</tr>
</tbody>
</table>
Facilitator: So what opportunities are there for students to practise their writing in your subject?
Interviewee: Practise?
Facilitator: Yeah.
Interviewee: Well, the report. That's practice isn't it?
Facilitator: Yeah. So that's in [this subject]?
Interviewee: Yeah. No, [this subject] is just a - well it's a math and equation.
Facilitator: But then in the exam you're asking them to do that kind of descriptive writing so I'm just wondering through the semester do they get opportunities to practise the kind of writing that they're being asked to produce in the exam?
Interviewee: Unfortunately no. That's a good point. (Garth, University D)
In contrast

- Propositional knowledge ("content") is practised in labs and tutorials before being summatively assessed

If writing practices not made visible in the engineering curriculum:

- difficult for them to be developed-
- subject coordinators won’t be aware of types and levels of writing students have practised in preceding and subsequent subjects.
What is meant/understood by ‘writing/writing practices’?

English; communication; understanding; presenting information; reporting

Meanings associated with ‘English’:
- English language proficiency
- English as grammar
- English as language
- English studied as a subject in high school
- English as the ability to analyse literary texts
- English as expression
- English as clear communication
What are the implications here?

- Perhaps engineering academics think they are expected to ‘teach English’ when asked to develop writing?
- Need to clarify expectations
- Need to establish shared language amongst engineering academics around writing
Where to from here?
References
