A retreat to move forward: Pooling expertise to create an innovative, fully supported writing retreat for STEMM postdoctoral researchers

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STEMM scene

- STEMM research intensive
- 3,500 PhD students
- Over 1,000 theses produced per year
- 4 year deadline for full-time students
- Focus on experiments
- Write up in final 4-6 months
- No further formal academic literacy training since age of 16

STEMM writers

- Proximal goal vs distal goal oriented
- Limited experience of, or avoided, extensive writing
- View thesis as write-up or *reportage* of experiments
- Express write up
- Many leave writing 100k words to last few months
- Miss the opportunity to make meaning through writing

Wellbeing

Final stage wellbeing has been a concern raised in our surveys from 2009 and 2014.

A higher percentage of our late-stage/ writing up students are stressed compared with other stages

PGR administrators felt they should leave them alone to write

Interviews with students

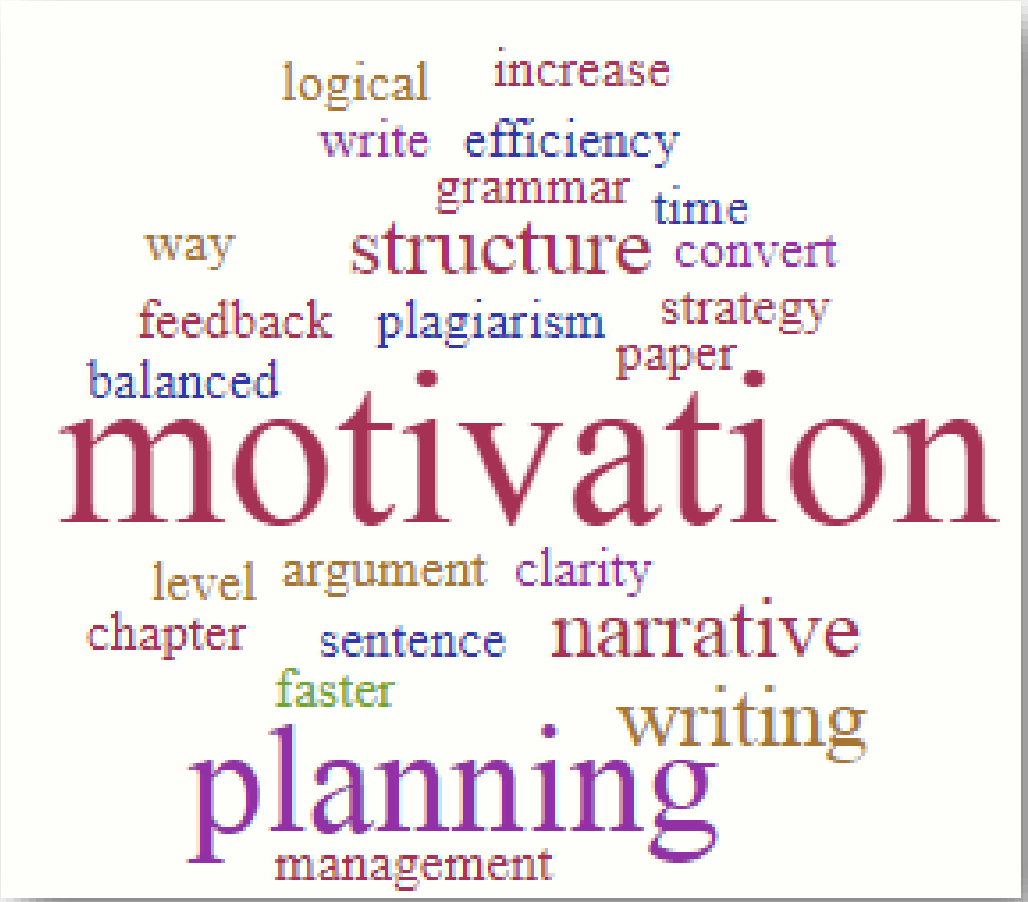
Masters in Education Research

- ***I was struggling from one sentence to the next***
- ***I lacked the motivation to start***
- ***I was happy but I had an inkling I could do better***

So I have a lot of trouble to focus, I didn't know where to start, I am someone who is a bit, erm, how can you say that ….a perfectionist….so like it's very bad because I am so afraid not to be able to do something that I don't even start.

I was trying to write one of my first chapters, and I was writing the introductory part of it, so I was trying to put together literature on that chapter and I was just like struggling, to get from one sentence to the next and really make headway with it

What would you like most help with?



Most help with…

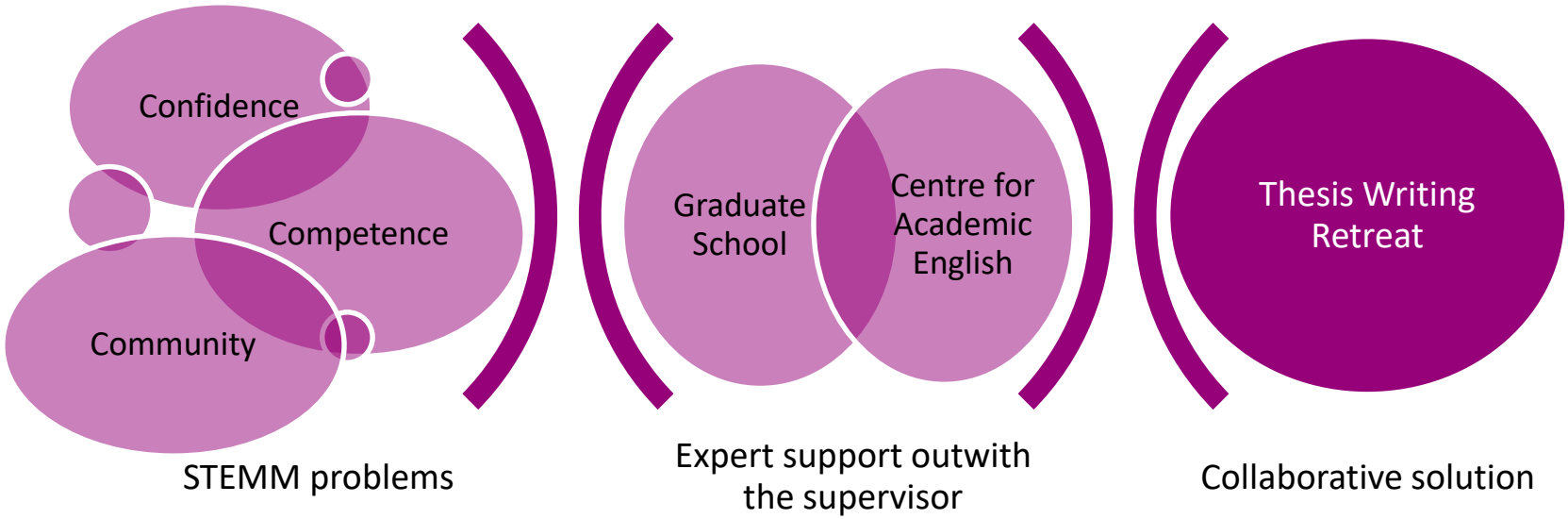
Supervisors' perception?

Ross et al (2011) interviewing both postgraduates and supervisors on STEMM writing revealed:

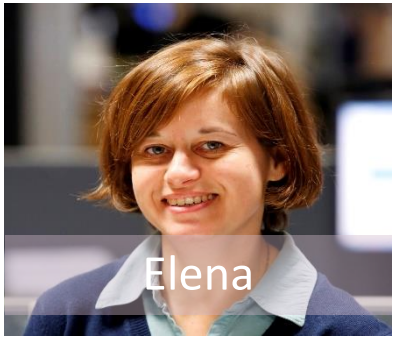
"a dominant view that learning to write was a difficult component of the doctoral candidature, one that had to be suffered by both the student and the supervisor."

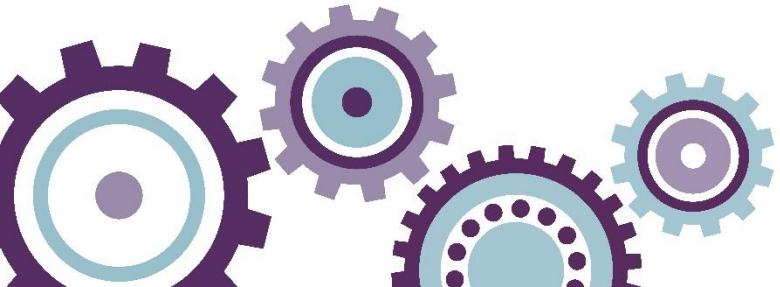
Ross, P.M., Burgin, S., Aitchison, C., & Catter, J. (2011) Research writing in the Sciences: Liminal territory and high emotion. Journal of Learning Design, designing for effective learning. 4:3 p14-27

How to support STEMM students during the writing-up stage?



Thesis Writing Retreat Team





Principles underlying the Retreat pedagogy:

- to build a micro-community of practice in natural surroundings
- to provide time and space for reflection and/or reframing of prior experience and assumptions
- to focus on the process and quality of writing as well as the product
- to bring together and integrate targeted support from two teams of experts

Changing the physical context

- Relocating to nature with spaces to work, rest and play
- Removing the usual distractions to leave only the writing
- Developing positive attachments to new physical, psychological, symbolic, and emotional aspects of relocation

Nature [...] yes definitely it helped the writing, […] it is nice to be kind of far away from everything and there is no pressures no distraction […] London can have a lot of physical anxiety all around so that was completely absent, that was good

There (the lodge) is definitely a more fruitful environment to work in and one that erm yeah that kind of increased my determination or my desire as I had had before to scoot off to a faraway place and lock myself up, go to the foothills of the Himalayas or something where there are few distractions .. . and this retreat kind of increased that desire but also addressed it if that makes sense

Content and structure of the writing retreat

- Morning input sessions
- 1-1 consultations
- Reflective activities: Haiku (day 1) and picture cards (day 2)

Input sessions – sharing our expertise

- Self management and wellbeing
- Effective texts
- Critique, input, originality of the work
- Effective language

1-1 (aka 1-4) consultations

Graduate School

- Supporting the research question
- Organising the thesis as a whole
- Presenting results/data
- Embargoing the thesis
- Managing the research + writing process
- Dealing with supervisor feedback

Centre for Academic English

- Writing for a reader
- Creating a narrative structure
- Presenting complex information accurately
- Organising information logically
- Avoiding over-dense, over-complex sentences
- Resolving ambiguity

The process of a 20 minute GS 1-1 consultation

Self

- Explain to me your approach to writing
- Motivation
- Momentum

Thesis

- Tell me about your research
- Title
- Structure

The process of a 20 minute CfAE 1-1 consultation

- What's the thesis about?
- Which section of the thesis does the text come from?
- What does the student think the problems are?
- What are the *actual* problems?
- How do I highlight the problems in a clear, comprehensible manner?
- What DIY solutions can I offer the student?

Before…raw text

As the second leading cause of cancer death worldwide, liver cancer is one of the most lethal malignancies. Although the number of newly diagnosed liver cancer each year is the fifth among all cancers, the high ratio of mortality to incidence (0.95) due to late diagnosis explains the mortality. Patients with liver cancer are usually diagnosed at late stages since they have only subtle clinical presentations at early stages. The requirement of high-end imaging modalities and invasive procedures, and the lack of reliable tumour biomarkers result that patients are usually found at late stages when diagnosed as HCC. Current diagnostic criteria for Hepatocellular carcinoma (HCC), the primary cancer of the liver, rely on expensive technologies, such as dynamic imaging of CT and MRI, or pathological evidence requiring invasive procedures. Alpha-fetoprotein (AFP), the long and widely used biomarker, was considered as a diagnosis test for HCC, but is not for its low sensitivity and specificity. Thus, the discovery of reliable biomarkers in order to diagnose HCC in the earlier stages is in critical need.

Before…quick analysis

As the second leading cause of cancer death worldwide, liver cancer is one of the most lethal malignancies. Although the number of newly diagnosed liver cancer each year is the fifth among all cancers, the high ratio of mortality to incidence (0.95) due to late diagnosis explains the mortality. Patients with liver cancer are usually diagnosed at late stages since they have only subtle clinical presentations at early stages. The requirement of high-end imaging modalities and invasive procedures, and the lack of reliable tumour biomarkers result that patients are usually found at late stages when diagnosed as HCC. Current diagnostic criteria for Hepatocellular carcinoma (HCC), the primary cancer of the liver, rely on expensive technologies, such as dynamic imaging of CT and MRI, or pathological evidence requiring invasive procedures. Alpha-fetoprotein (AFP), the long and widely used biomarker, was considered as a diagnosis test for HCC, but is not for its low sensitivity and specificity. Thus, the discovery of reliable biomarkers in order to diagnose HCC in the earlier stages is in critical need.

… ‘fixed’

Although liver cancer is the fifth most commonly diagnosed cancer worldwide, its high ratio of mortality to incidence (0.95) makes it the second leading cause of global cancer death [1]. This serious discrepancy is largely due to the fact that patients who have Hepatocellular carcinoma (HCC), the primary cancer of the liver, tend to be diagnosed at the later stages. Diagnosing this particular form of cancer requires expensive high-end imaging modalities, such as dynamic imaging of CT or MRI, and tissue proofing requires invasive procedures, such as biopsies or resections. In order to facilitate the diagnosis of HCC, a reliable tumour biomarker must be found. The widely-used biomarker, Alpha-fetoprotein (AFP), has been considered as a potential diagnosis test for HCC [2], but it is not recommended because of its low sensitivity and specificity. Thus, there remains a critical need for the discovery of new and reliable biomarkers in order to facilitate the early diagnosis of HCC.

I think that in terms of the actual quality of my writing there was a MASSIVE difference, a MASSIVE improvement. erm, by implementing just very straight forward and simple things, erm, you know, in terms in the way the writing flowed and it also, you know, just made me think about how the sentences, how the wording is put together, erm, so that's kind of what I mainly got from that retreat and, er, also you know just the sense of achievement of that I have actually achieved something in a very short space of time

Haiku task

Trees line the way to
A castle in the distance
New chapter begins

My brain is bustling
As wind rustles through the leaves
Knowledge flows through me

Windsor Castle in
The distance a drop of rain
Time to write some more

Long evenings, short nights
Putting thoughts to words tonight
Forming new world views

University Awards 2017

Winner

Bonus outcomes for the Team

- Direct access to often private and isolated process of writing-up

- Exclusive cross-disciplinary insights into issues STEMM students from *all* faculties face during writing-up stage

- Cross-fertilisation of GS/CfAE staff specialist knowledge and expertise has developed *our* own competence and confidence as well as students

- Desire for greater collaboration and sharing of best practice