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Developing Early Career Researchers' Self-efficacy for Academic Writing

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Abstract

Self-efficacy is important for maintaining a person's belief in their capacity to perform desired behaviours and achieve desired goals; without self-efficacy, in the context of academic writing, one may doubt their ability to achieve writing goals. Previous research showed that the Writing Meeting Framework (WMF) can enable desired changes in writing behaviours but did not consider the role of self-efficacy in this behaviour change. This UK-based study aimed to determine if the WMF could improve writing self-efficacy for postgraduate researchers (PGRs) and early career researchers (ECRs). Participants completed a baseline questionnaire to reflect on their writing experiences and then were randomly matched into 35 pairs. Each pair met online four times over eight weeks using the WMF and then completed a post-questionnaire, reflecting on their experiences. Analysis showed significant improvements in self-efficacy using the WMF: participants improved their ability to set realistic and achievable writing goals and increased their confidence in completing writing goals regularly. This study shows the WMF can develop PGRs' and ECRs' academic writing self-efficacy and suggests the WMF can develop writing attributes required to produce academic writing regularly and achieve individual writing goals. The WMF offers a mechanism for developing this important component of effective writing behaviour.

Introduction

Research continues to document the demands of writing, and of teaching writing, in Higher Education settings. Some argue that academic writing, i.e., writing in academic settings for academic purposes, requires individual skills, habits, attributions, or beliefs (Hartley & Branthwaite, 1989; Kempenaar & Murray, 2019; Mayrath, 2008; Sword, 2017). Others argue that connections, communities and 'social writing' are key (Elbow, 1998; Grant, 2006; Moore, 2003; Moore et al., 2010; Murray, 2014), with particular benefits for postgraduate researchers

(PGRs) in writing groups that offer 'horizontal spaces to develop as scholarly writers' (Colombo & Rodas, 2023, p. 55–56).

Research suggests that behaviour change strategies can help staff and students to engage with their writing and manage the demands of academic writing (Hardy et al., 2022). Principles of behaviour change can be used to facilitate changes in writing behaviour in the Writing Meeting Framework (WMF) (Murray et al., 2008; Murray & Thow, 2014, funded by the Nuffield Foundation).

The WMF facilitates behaviour change through regular peer-to-peer structured meetings. It involves a series of structured conversations about writing, adapted from one-to-one motivational interviews used in health care settings, where it helps people to change behaviours in, for example, increasing activity after a heart event (Kenny et al., 2024). The WMF involves a generic competence approach to academic writing rather than discipline-specific writing skills. Evidence from various settings, including higher education, shows this approach is effective because it helps people to align their goals and values, thus 'promoting intrinsic motivation' – important for PGRs (Smith & Deane, 2014, p. 40) – and developing their own solutions to the challenges of academic writing. It is the writing process that is the focus, rather than discipline-specific writing skills. These skills may be discussed at these meetings, but they may not. It depends on what participants choose to discuss.

While descriptions of the WMF process are available in previous research publications (Hardy et al., 2022; Murray et al., 2008; Murray & Thow, 2014), the key principles and practices are explained in fig. 1 (below); the appendix shows how the steps for changing writing behaviours were embedded in the WMF template.

Working in pairs, writers use the WMF to structure peer-to-peer discussions of their writing plans, projects, and processes. Peers take turns to be 'prompter' and 'writer': the prompter writes down the writer's responses for each of the eight steps, and then peers switch roles and repeat the process. Having an active listener who writes down responses allows peers to focus on their writing. Having the prompter report back the writer's responses allows writers to reflect on their responses. Based on a counselling approach, the WMF prompters refrain from suggesting solutions to writers' issues to enable writers to focus on their own values, settings and solutions.

Figure 1. Writing Meeting Framework – eight behaviour change steps

The steps of the framework are as follows:

1. The writer identifies where they are in the change process (i.e., the process of changing their writing behaviours or practices).
2. The writer uses decisional balance to identify the importance of this change for them.
3. The writer identifies personal benefits of writing, and personal drawbacks of not writing.
4. The writer identifies barriers to writing and ways they can overcome them.
5. The writer sets writing goals for the short, medium, and long term.
6. The writer anticipates barriers to achieving these goals and ways to overcome them.

7. The writer identifies actions they will take to achieve these goals.
8. The writer refers to decisional balance to identify their level of confidence in achieving these goals.

This approach allows participants to talk about their contexts, about writing in their disciplines, about technical aspects of academic writing or writing process, or whatever they choose to discuss. It is designed to enable to problem solving by each individual writer.

Why self-efficacy?

For desired behaviour change to occur, a key component is developing and sustaining self-efficacy – meaning to develop and maintain an individual's belief in their ability to achieve a task, such as a specific writing project (Hardy et al., 2022). Bandura (1997) argued that self-efficacy determines what people think and do. For example, self-efficacy can act as a motivating factor for individuals to persist in tasks (e.g., writing) through intrinsically motivated behaviour and feelings of competence for that task. However, low feelings of self-efficacy can result in negative tendencies, where individuals withdraw from activities, demonstrating lower levels of effort, engagement, and persistence during tasks (Bandura, 1986). Each component of the WMF can be used to address these challenges. While previous studies have shown the effectiveness of the WMF for academic writing, this study explores the important component of self-efficacy and the role of the WMF in developing and maintaining self-efficacy in academic writing. Furthermore, this study explores the novel use of the WMF in an online environment compared to previous studies conducted in-person.

Research on self-efficacy in relation to PhD training and support suggests it is particularly important in early stages of academic careers. Overall et al. (2011) identified autonomy-support from supervisors as a mechanism in doctoral students' self-efficacy. Forester et al. (2004) defined research self-efficacy as a key factor in graduate students' development. Huerta et al. (2017) found a significant association between low self-efficacy and high levels of anxiety among graduate students. Vincent et al. (2023) studied PGRs self-efficacy in the context of writing retreats, using qualitative and quantitative measures of self-efficacy, as one of the important 'internal factors' (p. 1600). In Phyo et al.'s (2024) study, many students expressed self-efficacy in terms of 'their responsibility' to improve their writing (p. 5), although processes for doing so were not defined. These studies emphasise the need to investigate the role of self-efficacy in writing development in higher education. The aim of this study, therefore, was to determine if the online WMF developed writing self-efficacy in PGRs and Early Career Researchers (ECRs).

Method

Established methods of measuring self-efficacy, including statistical analysis, were adapted for this study. Because the study was conducted during the COVID-19 pandemic, it had to be conducted online.

Data collection was conducted between July and October 2020. The Northern Advanced Research Training Initiative (NARTI), a network of universities in the north of England, were involved to offer access to a range of PGRs and ECRs based at different universities. Since this study focussed on self-efficacy, we did not explore the contexts in terms of how academic writing is organised in these universities. Ethical approval for this study was provided by Nottingham Trent University. Email correspondence was sent by NARTI, inviting PGRs and ECRs at the network universities to participate in this study. This email provided information about the WMF, links to the research team's previous publications of the framework, and an online form which included specific project and participation information. Participants were asked to provide their names and email addresses to be used to connect each participant with their WMF peer. All participants were given a pseudonym to protect their personal information and with which to access their data if they decided to withdraw from the study at any time.

Participants

Seventy PGRs and ECRs agreed to participate and completed an informed consent form. Once the deadline for signing up had passed, all participants were sent a link to the pre-meeting questionnaire. At the end of the questionnaire, a link was given to a training video on the WMF. This video was only available to study participants, who were asked to watch the video by a set date after which they would be allocated a WMF peer.

Participants were randomly matched in pairs, with all pairs based in different institutions to encourage online meetings. Participants' disciplines of study were not considered in pairing. An email was sent to each pair (n = 35), introducing them to each other and reminding them of the next steps, along with links to the WMF template and the training video. The pairs were expected to meet online four times over a period of eight weeks. Four weeks after this period ended (in case peers had taken longer than eight weeks to complete their four meetings) participants were sent the link to the post-questionnaire. Participants were emailed three times with reminders to complete the questionnaire.

The questionnaire was adapted from the validated Self-efficacy Scale developed by Zimmermann and Bandura (1994) to measure self-efficacy in relation to writing. This adapted self-efficacy scale included 11 statements focussed on the components of self-efficacy in relation to writing, rather than on writing competence (see fig. 2). The statements were to be answered using a 1–5 Likert scale (1 being the poorest, and 5 being the greatest). Participants completed the questionnaire before the first meeting (baseline) and after the final meeting (post-measure).

1. I can start writing with no difficulty.
2. When working on a specific writing project, I can set realistic and achievable writing goals.
3. I can use my first attempts at writing to refine my ideas.
4. I can find a way to concentrate on my writing even when there are many distractions around me.
5. When I have a pressing deadline on a writing project, I am confident I can manage my time efficiently.
6. I can refocus my concentration on writing when I find myself thinking about other things.
7. When I get stuck writing a specific project, I can find ways to overcome the problem.
8. I can revise a draft of my writing project to make it more coherent and succinct.
9. I can protect my writing time.
10. I share writing drafts with others when I need feedback and support.
11. I am confident in completing my writing goals regularly.

Figure 2. Adapted Writing Self-efficacy questionnaire

Statistical analysis

The final sample size included 26 participants (13 pairs). Using data from the final sample of participants, descriptive statistics were calculated using the mean ± standard deviation. All data

were normally distributed, identified using subjective histogram observations, supported by the Shapiro-Wilk test ($p < 0.05$). A paired samples *t*-test was used to examine differences between baseline and post-measure data. All analyses were conducted using IBM SPSS Statistics 25. As with all statistical analyses, this analysis is not exempt from limitations, mainly associated with the smaller sample size. The Shapiro-Wilk test was selected as it is deemed more appropriate for smaller sample sizes, and the inclusion of effect sizes helps to acknowledge the limitations associated with the impact of a small sample size on the statistical power of this analysis. In addition, self-efficacy is subject to self-report only as this is a psychological quality that must be measured by participant perception. As such, this quality may be over- or under-estimated, but this is subject to personal perception.

Results

Initially, 70 participants (mean age = 37±10 years) were recruited; they completed the baseline questionnaire. Participants were allocated a writing peer, splitting the group into 35 pairs. After eight weeks, a final sample with full data (baseline and post-measure questionnaire responses) of 26 participants (13 pairs) was included in the analysis.

Descriptive characteristics of the 26 participants, shown in table 1, highlighted greater participation by women (*n* = 20) than men (*n* = 6), and greater engagement from those with no previous writing support experience (*n* = 15), than those with prior engagement in writing support activities (*n* = 11). There was also greater engagement from participants whose first language was not English (*n* = 15), and from those currently studying at Master's level (*n* = 17) compared to Bachelor's (*n* = 1) or Doctoral (*n* = 8) levels.

Table 1. Descriptive characteristics of the final sample of participants, by gender

Variable	Participants (*n*=26)	
	Women (*n*=20)	Men (*n*=6)
Age (Years) (*m* ± *SD*)	36 ± 7	45 ± 12
First Language		
English as First Language (*n*)	9	2
English not as First Language (*n*)	11	4
Degree Level at time of this study		
Bachelor's (*n*)	1	0
Master's (*n*)	12	5
Doctoral (*n*)	7	1
Writing Support		
Previous Experience (*n*)	9	2
No Previous Experience (*n*)	11	4

[Age (years) shown as mean (*m*) and standard deviation (*SD*), first language, degree level, and writing support categories all shown as number of participants (*n*).]

Table 2 illustrates the differences between baseline and post-measure questionnaire responses (on a 1–5 Likert scale, as noted above). All responses improved from baseline to post-measure, and seven statements showed significant improvements (all $p < 0.05$).

Table 2. Differences between pre- and post-measure questionnaire responses

Variable	Participant Responses (n = 26)		Difference (Baseline – Post)	Effect Size
	Baseline (Mean ± SD)	Post-Measure (Mean ± SD)		
Q1	3.65 ± 1.36	4.27 ± 1.22	-0.62 (-1.16 to -0.07)*	0.45
Q2	3.92 ± 1.13	4.54 ± 1.24	-0.62 (-1.03 to -0.20)*	0.60
Q3	4.46 ± 1.17	4.69 ± 1.23	-0.23 (-0.69 to 0.23)	0.20
Q4	3.23 ± 1.56	3.92 ± 1.41	-0.69 (-1.16 to -0.22)*	0.60
Q5	4.65 ± 1.23	4.92 ± 1.50	-0.27 (-0.92 to -0.38)	0.17
Q6	3.54 ± 1.39	4.12 ± 1.11	-0.58 (-1.08 to -0.08)*	0.47
Q7	3.58 ± 1.14	4.00 ± 1.36	-0.42 (-0.96 to 0.11)	0.32
Q8	4.46 ± 1.45	4.96 ± 1.15	-0.50 (-0.92 to -0.08)*	0.49
Q9	3.31 ± 1.41	3.85 ± 1.54	-0.54 (-1.09 to 0.01)	0.40
Q10	3.65 ± 1.65	4.38 ± 1.70	-0.73 (-1.33 to -0.13)*	0.49
Q11	3.77 ± 0.99	4.58 ± 1.47	-0.81 (-1.45 to -0.16)*	0.51

[Significant difference between the pre- and post-measure questionnaire responses at *$p < 0.05$. Effect sizes using Cohen's d are as follows: small ($0.2 \leq d < 0.5$), moderate ($0.5 \leq d < 0.8$), and large ($d \geq 0.8$).]

The seven questionnaire statements deemed to have significantly improved from baseline to post-measure (marked with an asterisk in table 2) are as follows (cf. fig. 2):

1. I can start writing with no difficulty.
2. When working on a specific writing project, I can set realistic and achievable writing goals.
4. I can find a way to concentrate on my writing even when there are many distractions around me.
6. I can refocus my concentration on writing when I find myself thinking about other things.
8. I can revise a draft of my writing project to make it more coherent and succinct.
10. I share writing drafts with others when I need feedback and support.
11. I am confident in completing my writing goals regularly.

Each statement will be discussed in more detail below.

Discussion of Findings

The aim of this study was to determine whether the online WMF developed writing self-efficacy in PGRs and ECRs. An initial observation of this study was the reduced sample size, starting with 70 participants (35 pairs) and finishing with 26 participants (13 pairs). This drop in numbers might reflect the challenge of the transition to online and hybrid working that had to occur during the COVID-19 pandemic. Future studies may wish to explore the transition to online and hybrid working in more detail, how this may impact academic writing, and what support measures can be implemented for academics across all levels as this study focused on PGRs and ECRs. In this context, the WMF offers a structured process for PGRs and ECRs navigating between hybrid spaces, crossing and re-crossing hybrid thresholds, and identifying and addressing the challenges this is likely to present: "Requiring students and teachers to move in-between spaces while learning together and writing independently is not necessarily a straightforward process" (Jusslin & Hilli 2023, p. 4).

Participant descriptive characteristics

With reference to the final sample, more women (n = 20) participated than men (n = 6). Though academia is a diverse sector often dominated by men at certain levels (Guarino & Borden, 2017; HESA, 2023; O'Meara et al., 2022), writing, and more specifically writing retreats and support, are usually attended by more women than men, and this may discourage initial and/or regular participation from men (Murray & Kempenaar, 2019). In addition, women PGRs are

more likely than men PGRs to 'doubt their legitimacy' and 'experience imposter syndrome', and if "competitive work environments, such as academia pose difficulties for [women] PhD graduates" (Bran et al., 2024, p. 568), then perhaps there is a need explicitly to explore and support self-efficacy. The WMF offers a way to provide this support, and to facilitate PGRs and ECRs in providing mutual peer support. In addition, if these challenges persist, the WMF may be important for sustaining self-efficacy throughout academic and research careers.

There was also greater engagement from participants in this study whose first language was not English. This could reflect the benefit of the WMF for those who struggle with potential language barriers, particularly in contexts where their research is of a high standard, but their writing in English may require development (Murray & Yamamoto, 2019) and may benefit from the form of support offered by the WMF.

Although responses to all statements showed improvement from baseline to follow-up, responses to seven statements demonstrated a statistically significant improvement. To discuss these results in more detail, the statements have been grouped into themes below, where each statement is both individually reviewed and linked to other related statements. These concern the components of writing self-efficacy: confidence in starting to write, setting realistic and achievable goals, overcoming distractions and sharing writing for feedback and support. The significant findings are highlighted with asterisks in the sections below.

Writing goals – statements 2 and 11**

Statements 2 and 11 asked participants to rate their ability in setting and achieving realistic writing goals. This is a key phase of the WMF, in which steps 5 to 8 of the behaviour change model (see fig. 1 and appendix) focus specifically on goal setting. The aim of goal setting is to break down the end product (i.e., a published or completed manuscript) into small, achievable goals within a specific time (e.g., write 200 words per day to complete a section in five days). Goal setting can be a difficult skill to harness, but it offers time-management support that may improve productivity. Two key principles of goal setting are identifying 'realistic' and 'achievable' goals, which often means completing less than initially planned. This may prevent people from setting unrealistic goals that are unachievable, which can lead to disappointment and demotivation (Collado-Mateo et al., 2012).

Goal setting can have beneficial effects on self-efficacy. For example, as participants set a realistic writing goal, they may experience a sense of self-efficacy for attaining it, which, in turn, may prompt them to engage in activities they believe will help them to achieve their writing goals (e.g., a 90-minute writing session; Elliott & Dweck, 1988). Both statements within this theme demonstrated a significant improvement between baseline and follow-up questionnaires. This is a key finding and supports the WMF's impact, helping writers to set realistic goals and achieve them.

Writing time – statements 5 and 9

It is unsurprising that neither statement 5 nor 9 showed significant improvement, due to the nature of their content. For example, once goals have been set, PGRs and ECRs must find and protect their writing time to produce quality outputs. Once writing time is identified, having the ability to protect this time is a key skill in academia (Bullion & Brower, 2017). It is important to develop this skill in PGRs and ECRs to promote healthy and successful careers because the stress of pressing deadlines can lead people to procrastinate. Time management is a skill that requires perseverance and agency, and links to statement 9 about being able to protect writing time.

Writing drafts – statements 1, 3 and 8**

The writing process can be difficult to initiate. However, participants' responses to statement 1 show significant improvement, a promising finding that supports the use of the WMF. It can be a struggle for PGRs and ECRs to commence the writing process (i.e., knowing where and how to begin writing).

Though participants' responses to statement 1 significantly improved, it appears that participants might have struggled to refine their initial writing attempts, as there was no

significant improvement in responses to statement 3. This finding suggests that the WMF could be used to support participants in using and refining their initial drafts. Interestingly, while statement 3 refers to participants' abilities to revise 'first drafts' and showed no significant improvement, responses to statement 8 suggest that confidence in their ability to revise other writing drafts significantly improved. This change may indicate that participants' self-efficacy was developing as their writing drafts progressed.

Managing distractions – statements 4, 6*, and 7*

Responses to statement 7 did not demonstrate a significant improvement. The experience of 'writer's block' can lead to writing fatigue and ultimately discourage PGRs and ECRs from starting, continuing or completing a manuscript or writing task. This can impact writing confidence and delay productivity, leading to stress and anxiety, especially when written outputs are linked to progression in study, employment, or to contract requirements.

Statement 4 demonstrated a significant improvement and is a key finding as academia presents many distractions from writing, ranging from meeting requests, ongoing email notifications, administrative priorities, teaching, marking, and many other demands (Naidoo-Chetty & du Plessis, 2021). The WMF helped participants to concentrate, despite distractions, but they struggled to protect their writing time.

Statement 6 also demonstrated a significant improvement and links to statement 4 about participants' ability to concentrate among distractions. Distractions will always be present, and the ability to refocus is crucial when attempting to complete any task. The WMF offers structured support by encouraging those who use it to think about how they can limit controllable distractions, such as muting email notifications during writing time, removing mobile phones from writing spaces and blocking time in calendars to decline meeting requests. The WMF helped participants to produce solutions to this problem that worked for them, in their contexts, meaning their discipline or environment.

*Confidence to share with others – statement 10**

This statement links with others but is independently important because writing is often a personal endeavour that academics and researchers struggle to share. For example, participants were asked about their ability to refine writing drafts, but their perspective may differ from a 'critical friend's' perspective. Statement 10 demonstrated a significant improvement and supports the WMF's ability to facilitate a safe environment in which participants feel comfortable to be vulnerable with their writing peers. Working with a peer can bring clarity to the decision-making process (Hardy et al. 2019) and an important factor with the WMF is that peers are not required to solve problems for one another, or even to give advice (Hardy et al., 2022). Instead, they prompt each other to come up with their own viable solutions and review the extent to which they work for them. To do this, reflection is crucial: sharing personal reflections that differ from general writing conversations can spark empathy between peers and encourage solutions to be developed and, perhaps, sustained.

In summary, our results suggest that using the WMF did improve participants' self-efficacy in relation to their writing in the following areas:

- increased confidence in starting to write and re-drafting;
- enabling participants to set realistic and achievable writing goals;
- supporting participants to overcome distractions; and
- facilitating the sharing of writing for feedback and support.

Implications of the Writing Meeting Framework

An implication of our findings is that the WMF can increase self-efficacy in relation to writing through the following components of behaviour change:

- regular structured meetings focused on writing;
- peer-to-peer, non-judgmental dialogue on writing – not spontaneous chat or formal review; and
- 'peer-formativity' (Murray & Thow, 2014) rather than performativity.

Participants in this study demonstrated a significant increase in confidence in their ability to set realistic and achievable writing goals when working on a specific project, and by developing confidence in their ability to complete their writing goals. Confidence directly links to self-belief, and self-efficacy is a crucial factor when engaging in academic writing activities.

These results support previous research on in-person Writing Meetings, which showed the importance of using the WMF with peers for maintaining confidence in making decisions about what is possible and realistic for a session of writing (e.g., Hardy et al., 2022). In addition, the results confirm that non-judgmental feedback from a writing peer during goal-setting prompts the writer to set appropriate, realistic goals that match their perception of competence for the writing task. In turn, this can nurture feelings of self-efficacy in relation to progressing writing. The WMF therefore offers a mechanism for the type of peer-to-peer work on writing among early career academics that Kent et al. (2017, p. 1194) called for when they stated that "writing amongst 'equals' increased productivity and confidence among [early career] academics". This study suggests that the WMF offers a way to achieve that aim.

There have been calls for further research and development to improve self-regulation, develop productive writing habits and mainstreaming writing support groups (Huerta et al. 2017). In a study of the benefits of writing retreats for PhD students, Papen and Thériault (2017, p. 166) argued that "opportunities [for] students to write and to reflect on their experiences as writers are a valuable part of PhD training". While informal settings can support doctoral student development (Hodge and Murphy 2023), the WMF offers a structure for students' reflection on their experiences as writers, which has been identified as an important part of the process of developing a researcher identity (Cannell et al., 2023). It also offers a mechanism for student autonomy, which Overall et al. (2011) found is important for doctoral students' self-efficacy. Furthermore, the WMF can provide a mechanism to support the integration phase of writing retreats proposed by Vincent et al. (2023). For example, the WMF can play a role in extending the benefits of writing retreats by continuing to develop and maintain self-efficacy in other writing environments. A consideration may be for PGRs and ECRs to be introduced to the WMF by their research supervisors. Supervisors could use the WMF to endorse student autonomy whilst mutually benefitting from this experience (i.e., to maintain supervisors' writing self-efficacy).

The WMF may also offer more experienced writers a mechanism for navigating increasingly pressurised academic workloads. Ahern-Dodson and Dufour (2023) make a strong case for balancing productivity and sustainability in efforts to achieve productivity: "Valorizing exceptional productivity normalizes escalating standards. It is hard to know how much is enough, especially when more always seems better" (p. 24). Performativity and productivity may require self-efficacy to be sustained actively, not only during doctoral education or early in academic careers, but also for the entire academic career life cycle and different challenges to writing that may emerge over the long term.

Deri (2022, p. 1) found that "PhD students gathering in public places (cafes, libraries, coworking spaces, museums, parks) increased their self-efficacy through peer learning (exchanging, observing, modelling)". This study offers the WMF as a way to structure and practice the "social actions led by graduate students" (p. 1), which they suggest could reduce PhD dropout rates. This study also offers a response to Deri's call for more research on whether successful mechanisms for developing self-efficacy in relation to writing can be transferred to digital platforms. As digital platforms become more prevalent and dominant, this study shows that the WMF can develop self-efficacy in online environments.

Conclusions

This study is the first to evidence that implementing a specific framework can offer support with this vital step in the writing process. Self-efficacy is important for academic work and study – it promotes achievement and well-being. In higher education settings where institutional goals, targets and measures are brought to bear on writing, it is important for people in the early stages of academic and research careers to develop individual goals in these institutional settings and to create solutions that help them to overcome known and anticipated barriers to writing.

While previous studies showed that the WMF has benefits for academic writers, this is the first study to focus on self-efficacy as a mechanism of these benefits. In addition, this study confirms that in its online form – necessitated by the COVID-19 pandemic – the WMF can support writers' self-efficacy, and can still be used to develop self-efficacy in relation to writing in face-to-face meetings.

If a strong sense of self-efficacy promotes achievement and well-being (Bandura, 1997), those who maintain self-efficacy are likely to see barriers to writing as challenges to overcome, rather than threats to avoid (Hardy et al., 2022). Where there are intensifying pressures to publish, in the form of research assessment and other performative practices, self-efficacy is even more important. Since self-efficacy is not a constant, it is useful to have ways to sustain it. It is vital, therefore, that academics, researchers, and doctoral students have mechanisms not only for developing but also for maintaining self-efficacy in relation to their academic writing. The WMF offers an effective way to do this.

Questions emerged during this study for further research. For example, we observed that writers could be in the 'maintenance' stage of behaviour change in relation to one form of academic writing (e.g., writing book chapters) but in the 'contemplation' stage in relation to another form of writing (e.g., writing journal articles). Does this suggest that self-efficacy is specific to particular academic writing tasks? Is it, perhaps, developed in relation to specific forms of writing, but not all? Academic writing takes many different forms. Having developed self-efficacy in one academic genre, the challenge of achieving in another genre may be substantial. The WMF may help writers to address this challenge, if they choose to do so.

Perhaps the WMF could be used to develop self-efficacy in various or multiple higher education spaces: as a component of doctoral training programmes, through university alliances (like NARTI), in spaces where students meet and where staff meet to write, like writing retreats and groups. The WMF could be integrated into these spaces.

Within the debate about teaching discipline-specific writing skills versus generic writing competence, the WMF, while it does not develop discipline-specific skills, as it was not intended to, could be used in conjunction with discipline-specific skills development, and this could be an interesting further study. However, the WMF's purpose is to enable participants to discuss the writing process and thereby maintain writing momentum and self-efficacy, so that discipline-specific matters may come up in these structured conversations; but they may not, if these are not the focus for participants.

There are implications for PGR and ECR training: learning the principles of behaviour change that underpin the WMF and reviewing the evidence of its benefits for themselves could be part of PGR and ECR training and development in academic writing.

Finally, the authors welcome information on other experiences of using the WMF, and, in order to widen the benefits to others, the WMF is available for free download from anchorage-education.co.uk (in the Resources section).

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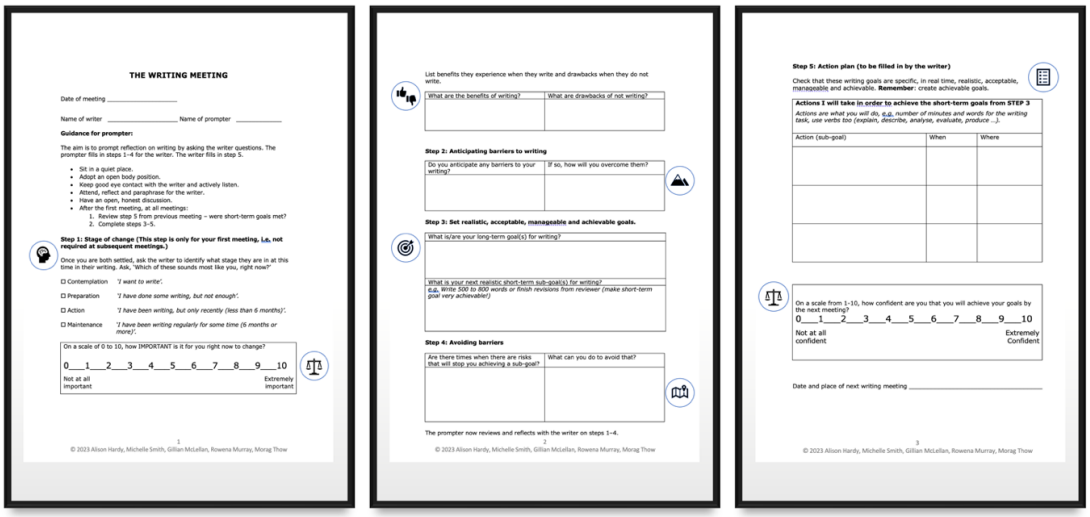
Appendix: Behaviour change steps embedded in the Writing Meeting Framework template

This image of a WMF meeting template shows where change steps are embedded. The icons in the margins correspond to those shown in fig. 1 in the Introduction.



THE WRITING MEETING

Date of meeting _____

Name of writer _____ Name of prompter _____

Guidance for prompter:

The aim is to prompt reflection on writing by asking the writer questions. The prompter fills in steps 1–4 for the writer. The writer fills in step 5.

- Sit in a quiet place.
- Adopt an open body position.
- Keep good eye contact with the writer and actively listen.
- Attend, reflect and paraphrase for the writer.
- Have an open, honest discussion.
- After the first meeting, at all meetings:
  1. Review step 5 from previous meeting – were short-term goals met?
  2. Complete steps 3–5.

Step 1: Stage of change (This step is only for your first meeting, i.e, not required at subsequent meetings.)

Once you are both settled, ask the writer to identify what stage they are in at this time in their writing. Ask, 'Which of these sounds most like you, right now?'

☐ Contemplation *'I want to write'.*

☐ Preparation *'I have done some writing, but not enough'.*

☐ Action *'I have been writing, but only recently (less than 6 months)'.*

☐ Maintenance *'I have been writing regularly for some time (6 months or more)'.*

On a scale of 0 to 10, how IMPORTANT is it for you right now to change?

0___1___2___3___4___5___6___7___8___9___10

Not at all important — Extremely important

1

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List benefits they experience when they write and drawbacks when they do not write.

What are the benefits of writing?	What are drawbacks of not writing?

Step 2: Anticipating barriers to writing

Do you anticipate any barriers to your writing?	If so, how will you overcome them?

Step 3: Set realistic, acceptable, manageable and achievable goals.

What is/are your long-term goal(s) for writing?
What is your next realistic short-term sub-goal(s) for writing?
e.g. Write 500 to 800 words or finish revisions from reviewer (make short-term goal very achievable!)

Step 4: Avoiding barriers

Are there times when there are risks that will stop you achieving a sub-goal?	What can you do to avoid that?

The prompter now reviews and reflects with the writer on steps 1–4.

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Step 5: Action plan (to be filled in by the writer)

Check that these writing goals are specific, in real time, realistic, acceptable, manageable and achievable. **Remember**: create achievable goals.

Actions I will take in order to achieve the short-term goals from STEP 3

Actions are what you will do, e.g. number of minutes and words for the writing task, use verbs too (explain, describe, analyse, evaluate, produce ...).

Action (sub-goal)	When	Where

On a scale from 1-10, how confident are you that you will achieve your goals by the next meeting?

0___1___2___3___4___5___6___7___8___9___10

Not at all confident — Extremely Confident

Date and place of next writing meeting _____

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