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The psychologist as wordsmith: a questionnaire study of the writing strategies of productive British psychologists

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Abstract. Eighty-eight productive British psychologists completed a questionnaire on their writing habits and on their attitudes to and feelings about academic writing. The data were analysed in three ways. Firstly, an overall descriptive profile of the 'average' productive writer was drawn up by examining the most frequent responses to individual items on the questionnaire. Secondly, cluster analyses were carried out to determine if there were groups of productive individuals who set about their writing in distinctive ways. These analyses revealed groups of writers who could be distinguished in terms of their styles of composition (labelled 'thinkers' versus 'doers') and in terms of their attitudes and feelings (labelled 'anxious' versus 'enthusiastic'). Thirdly, step-wise regression was used to isolate correlates of higher productivity for different products – books, book chapters and papers. The results suggested that different writing patterns accompanied the production of these different products. The highly productive writers of books were less likely to claim to be sporadic writers, and more likely to claim that they did sections of their writing in a single draft. The highly productive writers of chapters were more likely to be responding to commissions to write for an editor or colleague and their writing was aided a good deal by secretarial provision. The highly productive writers of papers did not always enjoy expressing what they wanted to say as much as their less productive colleagues, but they felt that their writing was very important to them. These findings are discussed in relation to research on academic writing in other disciplines, and the paper concludes with some prescriptive advice to authors should they wish to increase their productivity.

Introduction

In an earlier paper Hartley and Knapper (1984) described their use of an open-ended questionnaire to discover how British and Canadian academics (of all disciplines) felt about academic writing and how they went about writing books and journal articles. The results suggested that there were wide individual differences in methods and procedures, and in attitudes to writing. The authors attempted to draw up a profile of the 'average' academic writer and to characterise differences between writers in the arts and sciences, but they were not confident about the validity of their conclusions in this last respect.

The three new studies reported in this present paper developed the original enquiry in three ways. Firstly, the studies were confined to academics in one discipline, namely, psychology; secondly, the studies were based on more quantifiable responses obtained from a multiple choice questionnaire; and thirdly, the studies were confined to productive psychologists. The arguments for making these three changes were as follows. Firstly, by concentrating on

one discipline we were able to avoid the variation that arises from the use of different approaches in different disciplines; secondly, by using a more quantifiable questionnaire we were able to examine correlates of productivity, and to see whether or not there were patterns or clusters of responses that would enable us to identify styles of productivity; and thirdly, by concentrating on productive psychologists we were able to draw up a pattern that other psychologists – particularly beginning ones – might wish to emulate, or at least compare themselves with. No other workers, as far as we are aware, have described the writing patterns of productive members within one particular discipline although there are studies of academics in general (Boice & Johnson, 1984) in the organisational sciences (Mitchell et al., 1985) and in science and engineering (Kellogg, 1986).

The development of the questionnaire

The new questionnaire (available from the authors on request) had three main sections. Section One collected biographical data, and estimates of publication rates for a variety of different kinds of publication (e.g. books, book chapters, papers in refereed journals, book reviews, and 'others'). Data were also collected on the amount of time spent on teaching, administration and other duties as well as academic writing. Section Two followed the Hartley and Knapper (1984) questionnaire in that it asked a series of questions about how the respondents proceeded when they were writing academic publications. In this revised questionnaire, however, respondents were asked to rate their answers in terms of 'Always/Often', 'Sometimes', or 'Seldom/Never' in response to a set of individual statements about a particular question. Space was also provided for respondents to qualify or add to their responses if they wished. Section Three also followed the Hartley and Knapper questionnaire in that it asked a series of questions about respondents' attitudes and feelings towards academic writing. The questions and the individual statements that accompanied each question were determined (a) by using responses that had been obtained with the original open-ended questionnaire; (b) by adding in further questions and statements from other questionnaires as appropriate (e.g. those used by Boice & Johnson, 1984; Kellogg, 1986); and (c) by piloting the questionnaire with colleagues at the University of Keele to obtain further suggestions.

Distributing the questionnaire

To ensure that the questionnaire was distributed to productive academic

colleagues two copies were sent to a member of staff known by reputation to be a productive scholar in each of 54 departments of psychology in the U.K. This person was asked (a) to complete one questionnaire and (b) to ask another colleague who was in his/her opinion a productive writer to complete the second questionnaire. In rare cases where no productive scholar was known, we contacted the heads of the departments concerned and asked them to distribute the questionnaires to two of their most productive staff.

The questionnaires were mailed in February 1986 and 77 responses were received by the end of April. A follow-up letter generated a further six replies (making a response total of 83, or 75% overall). To these questionnaires we added a further six from colleagues at Keele (i.e. people not involved in the pilot study), a further 14 from colleagues at Nottingham University (where the first author had been on leave) and two more from people whom the original respondents suggested should be included in our sample. This made a total of 105 completed questionnaires.

In the event we used only 88 of these questionnaires in our subsequent enquiries: we deleted two because they were not completed sufficiently clearly; we deleted ten because they turned out to be from research workers or clinicians who did very little, if any, teaching; and we deleted five because it was deemed that the respondents were insufficiently productive to be included in a sample of productive psychologists.

Determining productivity

Respondents to the questionnaire were asked to indicate how many published items they had produced over a three-year period (Oct. 1982–Oct. 1985) in various categories. The numbers in each category were then multiplied by the following weightings to produce a measure of overall productivity: books, 5; edited collections of original papers, 3; book chapters, 2; edited collections of published papers, 2; papers, 1; literature reviews 1; research notes, 0.75; book reviews, 0.5; and others, 0.5.

This weighting scheme was based partly on subjective judgement, and partly on previous research, and its validity will be discussed further below (see Discussion). Each person was given full credit for co-authored publications (as in Over, 1982a). The category 'others' included guest editorials, newspaper and magazine articles, encyclopaedia entries, popular articles and comments. The following items, however, were excluded: paper presentations and invited addresses (if not published), unpublished reports, abstracts, and obituaries.

Previous research suggested that the average number of publications for psychologists in general was about two items per year (Endler et al., 1978;

Rushton & Endler, 1977) although these studies excluded books. Over (1982a) reported that highly productive psychologists in his sample had three or more publications listed in *Psychological Abstracts* over a three-year period. Davis and Astin (1987) found that their highly productive scholars in higher education institutions had published at least 5 articles during a two-year period. Bridgwater et al. (1982) reported slightly higher figures: an average of four items per year. Accordingly we decided that if we wished our sample to represent productive psychologists we would exclude from further consideration respondents with less than a total weighted score of six: five respondents were thus excluded.

Table 1 indicates the median number of items produced in each category over three years for our final sample of 88 respondents. The median total weighted productivity score was 21 and the range was 6.5–87.5. Table 1 shows that our productive writers were mainly writing papers, chapters for books, and book reviews but that there were wide individual differences between them in the areas in which they concentrated.

Table 1. The median number of items published over a three-year period ($N=88$).

	Median	Range
Books	0.71	0–5
Edited collections of original papers	0.13	0–7
Book chapters	2.50	0–10
Edited collections of published papers	0.02	0–7
Papers	7.61	0–61
Literature reviews	0.13	0–7
Research notes	0.14	0–24
Book reviews	2.35	0–25
Others	0.10	0–20

Enquiry One: an overview picture of productive writers

The aim of our first enquiry was to ascertain, by using frequency counts, the overall average profile of a productive British academic psychologist. To do this we examined the proportion of responses falling into the three categories 'Often/Always', 'Sometimes', and 'Rarely/Never' to each question. These results allowed us to see what productive writers claimed to do, and what they felt about it. Table 2 presents a summary of the findings. (The actual frequencies of the responses to each of the questionnaire items are provided in the copy of the questionnaire which is available from the authors).

Table 2. A complete profile of the (average) productive academic psychologist.

Most productive writers in psychology:
- wish to complete a piece of work for publication;
- set goals and targets for themselves;
- determine the structure of what they are writing according to the kind of text being written (scientific article, book, chapter);
- work out a rough plan which they do not always stick to;
- complete one section at a time (often in order);
- use a word processor themselves and/or have secretarial assistance with word processing;
- re-write the text several times (2–4 drafts being most common);
- write the abstracts or summaries last.

Most productive writers in psychology:
- mainly write in a study or office at home;
- seek quiet conditions and avoid distractions whilst they are writing;
- work at any time of the day;
- write for concentrated periods of time, of varying length, depending on what they are writing;
- spend between 2 and 5 hours writing each week in term time.

Most productive writers in psychology:
- rarely consult their colleagues or students about what they are writing;
- rarely collaborate with other colleagues but, if they do, they work on separate parts which they then put together;
- rarely suffer greatly from writers' blocks but, if they do have them, they tend to do something else for a while and then return.

Most productive writers in psychology:
- enjoy academic writing;
- feel that their writing is important to them;
- enjoy the feeling that it is going well;
- like expressing what they want to say; and
- like developing their thoughts through writing and communicating ideas.

The picture depicted in Table 2 matches quite closely the overall picture of the average academic writer (in various disciplines) provided by Hartley and Knapper (1984). Four main *differences* are that the productive academic psychologists seem:

less susceptible to writers' blocks,
less interested in consulting colleagues,
more interested in publication, and
more enthusiastic about writing.

However, in common with academics in other disciplines, productive psychologists rarely dictated their articles, and were greatly hampered in their writing by 'having too many other things to do'. (And if we may be permitted a personal comment at this point we note that it is this factor that has contributed considerably to delays in the production of this paper!)

Enquiry Two: patterns of productivity

In the next stage in our enquiry we set out to see whether or not there were any patterns in the data. We wished to discover, for example, whether or not there might be groups of individuals who went about their writing in similar ways but who could be distinguished from other groups. To answer this question we analysed the responses to the questionnaires using the SPSS cluster analysis program.

Cluster analysis starts by treating each individual separately and then progressively combining individuals into larger and larger groups or clusters – where each person in one cluster is more like every other person in that cluster than he or she is like people in the other clusters. Given an array of clusters of increasing sizes, the research worker's problem is to decide which array it is most meaningful to describe.

In our case this decision was not difficult when all the variables from the questionnaire were fed into the first analysis: the program was unable to differentiate between the respondents and to produce meaningful clusters. Indeed, our first analysis suggested that there was one large group that contained the vast majority of respondents and then there were numerous idiosyncratic individuals on their own. Thus, for example, an eleven cluster solution had one large cluster containing 65 respondents, two clusters which each contained only two persons in them, and eight 'clusters' with only single individuals in them. (This sample size of 77 results from the fact that individuals with any missing data were excluded from the analysis).

One possible explanation for this failure to find sets of meaningful clusters was that the questionnaire was too heterogeneous: perhaps by including attitudinal statements with items about ways of composing and methods of transcribing, we had expected too much from the analysis. To resolve this issue we grouped items the questionnaire into three areas and we ran separate cluster analyses on each set. The three sets were (1) items concerned with attitudes and feelings; (2) items concerned with methods of composing (or thinking about content), and (3) items concerned with methods of transcription (or techniques for putting words to paper).

This approach was more successful. While the cluster analysis for techniques for putting words to paper revealed (as before) no main sets of clusters, the analyses for methods of composition and for attitudes and feelings were more clear cut.

Methods of composition

For methods of composition an eight cluster solution seemed to be the optimal one to analyse. This solution had two main clusters (with 34 and 28 people in respectively), one with 5 people, two with 3, one with 2, and two with 1 each.

Table 3. The mean ratings obtained on items in the questionnaire that significantly differentiated Cluster 1 ($N=34$) from Cluster 2 ($N=28$) in terms of their methods of composition. (Individual responses to the questionnaire items were scored: Always/Often 3, Sometimes 2, Seldom/Never 1).

Questions and items	Cluster 1 Mean rating	Cluster 2 Mean rating	p value
1. What makes you decide you want to write an article/chapter/book?			
– I accept a request from an editor/colleague	2.0	2.4	.02
– I perceive the need to write something more suitable for my students	1.3	1.6	.04
3. How do you think about the structure of what you are writing?			
– I spend a long time thinking about the article before the structure emerges	2.2	1.8	.02
– I let the structure be shaped by the material: it emerges through drafting/writing	1.9	1.6	.03
4. Do you write in sequence from the start to the finish of the article/chapter?			
– I work in sequence from start to finish	1.8	2.7	.00
– I complete one section at a time, and I do the sections in order	1.8	2.5	.00
– I complete one section at a time, but the order is not important	2.0	1.2	.00
– I complete one section at a time. I start with the easiest and leave the hardest to the end	1.8	1.3	.00
– I complete one section at a time. I start with the hardest and leave the easiest to the end	1.4	1.0	.00
– I write the introduction last (not counting the abstract) as this helps me put the rest in perspective	1.8	1.4	.01
– I write the abstract or summary last	2.6	2.9	.03
– I write in no clear order whatsoever: I do what I can when I feel like it	1.4	1.0	.01
5. Do you normally complete an article/chapter at one sitting or do you work on one section at a time?			
– I complete (or at least do the first draft of the whole thing)	1.0	1.7	.00
– I complete one section at a time	2.0	2.4	.04
– I work on one section at a time, but I don't necessarily complete it before starting on another	2.1	1.4	.00
– I work mainly in sections but I move about a lot. Sections may be deleted or combined as the work progesses	2.2	1.2	.00
6. Which statement best describes your writing methods?			
– All of my writing is done in a single draft with very few minor changes	1.0	1.5	.00

Table 3. continued.

Questions and items	Cluster 1 Mean rating	Cluster 2 Mean rating	p value
– I re-write my first rough draft into a more polished version and then that's it	1.4	2.4	.00
– I re-write the text several times before I am satisfied with my work	2.8	1.6	.00
18. If you collaborate with others in your writing, who do you collaborate with?			
– I collaborate with longstanding friends	1.7	2.0	.05
26. When do you think about and mentally plan your writing?			
– When doing routine tasks (e.g. shopping, driving, gardening)	1.8	2.2	.01
– Early in the morning (in bed)	1.4	1.8	.02
Average number of drafts	3.4	2.0	.00
Average number of book chapters	2.4	3.8	.03
Average total productivity score	20.4	30.2	.01

We decided at this point – for the sake of simplicity – to concentrate our analysis on the two large clusters. For each of these clusters we calculated the respondents' mean scores on each item on the questionnaire concerned with methods of composition and we tested these means for significant differences. (Responses to the questionnaire items were scored as follows: Always/Often 3, Sometimes 2, Seldom/Never 1). Table 3 lists those items and means where significant differences were found.

Table 3 shows that members of Cluster 2 were much more mechanical in their ways of working than were members of Cluster 1. Compared with people in Cluster 1, those in Cluster 2 were more likely to complete one section at a time, to work in sequence, to spend less time thinking and to do the abstract last. They seemed to think less about what they were doing, and they approached the task in a more systematic way – writing fewer drafts. Members of Cluster 1, by contrast, spent more time thinking about what they were doing, they worked in any order, at different sections, and they produced more drafts. Members of Cluster 1, produced significantly less book chapters ($\bar{x}$ 2.4 vs. $\bar{x}$ 3.8, $p < .03$) and they had a significantly lower mean total product score ($\bar{x}$ 20.4 vs. $\bar{x}$ 30.2, $p < .01$). If we were to think of labels to describe the differences between these two groups, then we might think (unkindly) in terms of 'thinkers' (Cluster 1) versus 'doers' (Cluster 2). Somewhat surprisingly, the proportion of female writers in the two groups differed significantly: Cluster 1 contained 26 men and 8 women; Cluster 2 contained 27 men and 1 woman.

Attitudes and feelings

For attitudes and feelings an eleven cluster solution seemed to be the optimal one to analyse. This eleven cluster solution again had two main clusters (with 50 people in one and 18 in the other), one with 3 people, one with 2 and seven with 1 each. As before we concentrated on the two main clusters and Table 4 lists those items and means where significant differences were found.

Table 4. The mean ratings obtained on items in the questionnaire that significantly differentiated Cluster 1 ($N=50$) from Cluster 2 ($N=18$) in terms of their attitudes and feelings towards writing. (Individual responses to the questionnaire items were scored: Always/Often 3, Sometimes 2, Seldom/Never 1).

Questions and items	Cluster 1 Mean rating	Cluster 2 Mean rating	p value
1. What makes you feel you want to write an article/chapter/book?			
– I feel I must publish or perish	1.8	2.4	.00
21. What factors interfere with your productivity as a writer?			
– Laziness	1.5	1.9	.01
– The feeling that I have nothing worthwhile to say	1.4	1.8	.01
– Feeling uncertain whether the material is good enough to make it worth the effort of writing it up	1.5	2.1	.00
– Lack of conviction that much that is published is worthwhile	1.2	1.6	.00
– Discovering that I was not so sure as I thought I was	1.3	1.7	.02
– Fear of making mistakes in print	1.0	1.6	.00
– Expections that the paper will be rejected in the reviewing process	1.2	1.6	.01
– Lack of encouragement or rewards in my work situation	1.2	1.7	.00
– Too many other things to do	2.3	2.9	.00
– Writers' blocks	1.2	1.7	.00
23. How do you feel when you start to write something new?			
– I feel anxious	1.4	1.9	.01
– I feel obligated (i.e. I feel I *ought* to write rather than really want to)	1.6	1.9	.02
24. Some writers experience altered states of consciousness while they are writing. Do any of the following states apply to you?			
– I daydream	1.4	1.9	.01
– I experience moderate concentration	1.8	2.2	.03

Table 4. continued.

Questions and items	Cluster 1 Mean rating	Cluster 2 Mean rating	p value
27. How do you feel about writing?			
– I find writing easier than it was	2.4	2.0	.03
– I enjoy writing	2.6	2.1	.00
– I think writing is important to me	2.7	2.4	.05
– I dislike writing	1.1	1.8	.00
28. What do you dislike about writing?			
– Getting started: writing the first paragraph	1.9	2.6	.00
– Getting stuck	2.0	2.8	.00
– Revising to meet the whims of editors	2.0	2.4	.03
29. What do you enjoy most about writing?			
– The thought that it will soon be finished	2.0	2.7	.00
– Finishing	2.3	2.9	.00
Average rank for time spent advising and consulting (high rank = less time)	5.0	4.1	.05
Average number of books	0.9	0.4	.05
Average number of papers written	11.0	6.7	.05
Average total productivity score	28.7	17.7	.01

Table 4 shows that members of the smaller Cluster 2 felt more obliged to write, and were generally less happy about it than were members of Cluster 1. Members of Cluster 2 reported that they felt that writing was harder than it used to be, that they enjoyed it less, and that they generally disliked the more niggling aspects of writing. Members of Cluster 2 displayed much more self doubt than did those of Cluster 1 when checking those things that prevented them from writing. They doubted the value of their material – or indeed that of published material generally – and they were more likely to experience writers' blocks. Members of Cluster 2 produced significantly less books ($\bar{x}$ 0.4 vs. $\bar{x}$ 0.9, $p < .05$), less papers ($\bar{x}$ 6.7 vs. $\bar{x}$ 12.0, $p < .05$) and they had a significantly lower mean total productivity score than the more enthusiastic members of Cluster 1 ($\bar{x}$ 17.7 vs. $\bar{x}$ 28.7, $p < .01$). (There were no significant sex differences between these clusters). If we were to think of labels to describe these two clusters, we might think of Cluster 1 as enthusiastic and confident and Cluster 2 as anxious, obligated writers.

Thus by grouping the responses to the questionnaire in terms of responses to items concerned with methods of composition, and with attitudes and feelings, we have discovered some patterns in the data. Table 5 indicates a

possible way in which these groupings may intersect. By cross tabulating entries for each individual who was a member of both of the two pairs of clusters we can suggest *four* kinds of productive writers which we labelled 'enthusiastic thinkers'; 'enthusiastic doers'; 'anxious thinkers'; and anxious 'doers'.

Table 5. Four kinds of productive writers (N with data for all four clusters = 50).

	Enthusiastic	Anxious
Thinkers	15	12
Doers	19	4

Table 5 shows the number of respondents in each of the four categories. Only five of the total sample of fifty writers were women: all of them were classified as 'thinkers', three were labelled anxious (thinkers) and two enthusiastic (thinkers).

Our analyses of the productivity of these four types of writer indicated that the 'enthusiastic doers' always produced more than did members of the other categories (i.e. they wrote more books, book chapters, and papers) but that there was little to choose between the productivity of the other three groups. The differences were not significant, with the exception of those obtained for the total productivity scores. Here, as shown in Table 6, the 'enthusiastic' writers significantly outperformed the 'anxious' ones ($F=4.56$, df 1, 46, $p<.04$).

Table 6. Mean productivity scores of the four groups of productive writers ($F = 4.56$ df 1,46, $p<.04$).

	Enthusiastic	Anxious
Thinkers	20.9	18.1
Doers	32.6	19.8

The findings reported in this section of this paper may thus be summarised as follows:

1. It was not possible to find overall patterns of writing in responses to the questionnaire as a whole.
2. However, by subdividing the items in the questionnaire into three groups, it was possible to find patterns in terms of different methods of composition, and different attitudes and feelings towards writing, but it was not possible to find patterns in terms of different methods of transcription.

3. The clusters that we did find were large and amorphous, and there were still many idiosyncratic individuals. Nonetheless, the findings did suggest that there were different personality styles amongst our productive writers, and that these styles had effects on writing habits and productivity.

Enquiry Three: characteristics of higher productivity

For our third enquiry we sought to take a different tack. In this enquiry we set out to correlate responses to questionnaire items with the various productivity scores, and to use stepwise multiple regression to extract those activities which combined together to indicate or predict very high productivity. In this section of this paper we present the results from these multiple regression analyses for books, chapters, papers and for the total productivity scores. To help the reader interpret the findings we have provided tables of results for each of these items, and followed these tables with brief verbal summaries. Each table presents a list of those items which contributed to the multiple regression together with their significance levels. Also shown are the mean scores obtained on these items by the writers divided into subgroups according to their relative degree of productivity. Readers need to know at this point that:

(a) the sizes of the subgroups available varied according to the distribution of the responses and the ranges obtained for each of the main criteria of productivity (i.e. books, chapters, papers and overall).
(b) the numbers within the subgroups did not always total 88 as there were occasionally missing data (or questions which did not apply to all respondents);
(c) the responses to the questionnaire items were scored as before: that is 'Always/Often' was scored 3, 'Sometimes' 2, and 'Seldom/Never' 1.

Correlates of productivity (1) Books

The three subgroups in this category were as follows:

Writers with low productivity (N=37) produced 0 books
Writers with medium productivity (N=34) produced 1 book
Writers with high productivity (N=17) produced 2–5 books

Table 7 indicates how members of these subgroups responded to certain statements in the questionnaire. The responses to the first three statements each increased the predictive power of the multiple regression by a significant amount ($p < .025$) and the responses to the remaining statements significantly increased its predictive power at the ten per cent level or better.

Table 7. Correlates of productivity with books.
Items contributing to the multiple regression and their significance values. Also shown are the mean scores on these items for low ($N=37$), medium ($N=34$) and highly productive ($N=17$) writers of books on a scale of (3) always/often to (1) seldom/never.

Items	Multiple R	p	Low (0 books)	Medium (1 book)	High (2–5 books)
I write very sporadically in term time	.38	.005	2.36	1.88	1.47
When we collaborate we each write separate parts and then put the whole together	.48	.002	1.92	2.12	2.56
All of my writing is done in a single draft with very few minor changes	.56	.000	1.19	1.27	1.65
While writing I experience mild concentration	.60	.000	1.70	1.41	1.29
I write in no clear order whatsoever: I do what I can when I feel like it	.64	.000	1.31	1.28	1.50
In overcoming blocks I move on to a different section	.67	.000	2.04	1.76	1.70
I write once a week (in term time)	.70	.000	1.16	1.28	1.35
I re-write my first rough draft into a more polished version and then that's it	.74	.000	1.70	2.00	1.47
I clear a whole day for action	.77	.000	1.89	1.82	1.88
I enjoy feeling it is going well	.79	.000	1.78	1.65	1.65

Summarising the information given in Table 7 we can see that the more productive writers of books in our sample were less likely to claim to be sporadic writers, and more likely to claim that they sometimes did their writing in a single draft. When these writers collaborated they were more likely to work on separate parts of text and then to put the parts together. In addition to these main findings, the more productive writers of books were rather more likely to say that they had no clear sequence in mind when they were writing their texts. They were less likely to re-write rough drafts into more polished versions (i.e. they did more extensive alterations and reconfigurations), and if they experienced writers' blocks they were less likely than their less productive colleagues to move on to something else. Highly productive book writers were more likely to write at least once a week, and they experienced less mild concentration than their colleagues (because they experienced more moderate amounts). Finally, these writers were rather less inclined than their colleagues to agree that they experienced the feeling that all was going well.

Correlates of productivity (2) Chapters

The three subgroups in this category were as follows:

Writers with low productivity (N=29) wrote 0–1 chapters
Writers with medium productivity (N=28) wrote 2–3 chapters
Writers with high productivity (N=31) wrote 4–10 chapters

Table 8 indicates how members of these subgroups responded to certain statements in the questionnaire. The responses to the first two statements each increased the predictive power of the multiple regression by a significant amount ($p < .05$) and the responses to the remaining statements steadily increased the overall significance of the multiple regression, although not necessarily by a significant amount at each step.

Summarising the information given in Table 8 we can see that the highly productive writers of book chapters were more likely to accept commissions to write from an editor or colleague, and their writing was aided by secretarial provision. These writers seldom waited for inspiration or clever ideas, they were less likely to reward themselves for completing goals, and they disliked revising their texts to meet the whims of editors. In addition, these authors were less likely to feel uncertain about whether their material was good enough to make it worth the effort of writing it. Productive authors of book chapters tended to have a main theme which they wanted to put over, they built their arguments around this, and they were more likely to complete one section at a time. They experienced moderate concentration, and those that experienced writers' blocks (54 out of 88) agreed slightly less often with the statement that they overcame writers' blocks by finishing writing one section before its proper

Table 8. Correlates of productivity with book chapters.
Items contributing to the multiple regression and their significance values. Also shown are the mean scores on these items for low ($N=29$), medium ($N=28$) and highly productive ($N=31$) writers of chapters on a scale of (3) always/often to (1) seldom/never.

Items	Multiple R	p	Low (0–1 chapters)	Medium (2–3 chapters)	High (4–10 chapters)
I decide to write because I accept a request from an editor/colleague	.27	.047	2.00	1.96	2.39
I reward myself for completing goals	.40	.014	1.72	1.46	1.35
A secretary types revisions to my drafts	.47	.007	1.34	1.93	1.81
I wait for inspiration/clever ideas	.52	.003	1.57	1.46	1.26
In thinking about the structure I have a main theme I wish to put over and I build my argument around it	.56	.002	2.28	2.43	2.52
In overcoming blocks I finish writing before the end of a section so that I have to complete it before starting on the next	.60	.002	1.50	1.24	1.29
I do not enjoy revising to meet the whims of editors	.64	.001	2.03	1.97	2.26
I write in longhand with a pen/biro	.67	.001	2.28	2.00	2.13
I use a wordprocessor for composing text	.71	.000	2.10	2.11	1.77
I don't overcome blocks	.73	.000	1.30	1.29	1.41
While writing I experience mild concentration	.75	.000	1.46	1.67	1.40
I complete one section at a time and I do the sections in order	.78	.000	1.93	2.04	2.32
Feeling uncertain whether the material is good enough to make it worth the effort of writing it up (interferes with productivity)	.79	.000	1.69	1.71	1.65

end so that they would have to complete it before starting on the next section when they began to write again. These writers were more likely to type than to write in long hand with a ball point pen and they were less likely than their less productive colleagues to use a word processor to compose their text.

Correlates of productivity (3) Papers

The three subgroups in this category were as follows:

Writers with low productivity (N=32) wrote 0–5 papers

Writers with medium productivity (N=32) wrote 6–10 papers

Writers with high productivity (N=24) wrote 11–61 papers

Table 9 indicates how members of these subgroups responded to certain statements in the questionnaire. The responses to the first five statements each increased the predictive power of the multiple regression by a significant amount ($p < .05$) and the responses to the remaining statements significantly increased its predictive power at the ten per cent level or better.

Summarising the information given in Table 9 we can see that although the highly productive writers of papers in our sample did not always enjoy expressing what they wanted to say quite as much as their colleagues, they felt that their writing was very important to them. These writers were rarely held up by writers' blocks, but if they did occur they sometimes overcame them by finishing writing at a point where it was necessary to re-write or re-type before continuing. Colleagues were seldom consulted. In addition to these major factors highly productive writers of papers seized any available opportunities to write, they often wrote in the same place, and their papers were sometimes written because the authors could see the need to write something more suitable for their students.

Correlates of productivity (4) Total productivity scores

The three subgroups in this category were as follows:

Writers with low productivity (N=29) had a total score between 7 and 17

Writers with medium productivity (N=28) had a total score between 18 and 26

Writers with high productivity (N=31) had a total score between 27 and 88

Table 10 indicates how members of these subgroups responded to certain statements in the questionnaire. The responses to the first four statements each increased the predictive power of the multiple regression by a significant

Table 9. Correlates of productivity with papers.
Items contributing to the multiple regression and their significance values. Also shown are the mean scores on these items for low ($N=32$), medium ($N=32$) and highly productive ($N=24$) writers of papers on a scale of (3) always/often to (1) seldom/never.

Items	Multiple R	p	Low (0–5 papers)	Medium (6–10 papers)	High (11–61 papers)
I enjoy expressing what I want to say	.44	.001	2.84	2.69	2.27
To overcome blocks I finish writing at a point where it is necessary to re-write/re-type before carrying on	.55	.000	1.39	1.53	1.75
I think writing is very important to me	.62	.000	2.53	2.56	2.71
I don't overcome blocks	.67	.000	1.61	1.25	1.12
I ask colleagues from my department to comment	.71	.000	1.87	1.87	1.58
I seize any available opportunity to write (in term time)	.74	.000	1.91	2.53	2.21
I decide to write articles because I perceive the need to write something more suitable for my students	.76	.000	1.50	1.31	1.55
I do all my writing in one place	.78	.000	2.25	2.12	2.56

amount ($p < .05$) and the reponses to the remaining statements steadily increased the overall significance of the multiple regression, although not necessarily by a significant amount at each step. (The reader needs to note here that asterisked items in this table are separate measures and not measures of agreement with statements in the questionnaire.)

Summarising the information given in Table 10 we can see that the most productive writers in our sample spent less time on teaching; they sometimes completed, or did the first draft, of an article at one sitting; and they were less likely to ask their colleagues for comments. They also enjoyed writing. In addition to these main factors, highly productive writers spent a large amount of time writing, sometimes writing at least once a week and at weekends, and using deadlines to help them to start. These writers often followed the structure of a scientific article when thinking about their material, and sometimes they decided to write because they saw the need to write something more suitable for their students. Highly productive writers sometimes collaborated with longstanding colleagues when they wrote, but they rarely asked their wives or husbands to comment.

The tables reported in this section of the paper indicate that the correlates of productivity for highly productive writers differ according to the various kinds of product being produced. Referring back to Enquiry Two, it seems likely that the writers of books are a mixture of thinkers and doers. They tend to move about a lot whilst they are writing (characteristic of the thinkers) but to proceed in a well organised manner (characteristic of the doers). The authors of book chapters seem a bit more mechanical. They, like other eminent scholars, respond more to invitations to write (Rodman & Mancini, 1981). Davis and Astin (1987) found that chapter productivity was most highly associated with reputational standing in the social sciences. It may be that writing a book or a chapter is different from writing a typical paper in that one can usually develop and expand ideas free from the hard scrutiny of referees: ideas developed in chapters may become topics for later testing and subsequent journal articles (Perrow, 1985). Surprisingly, the extremely productive writers of papers did not appear to fall into the category of doers: here the key ideas which differentiated the highly productive from the less productive were a concern with enjoying the task and perceiving it as important. Enthusiastic doers emerged when we turned to overall productivity (Table 10).

Discussion

The overall aims of this paper expressed in the introduction, were (i) to concentrate on studying the writing habits of highly productive writers within one academic discipline, (ii) to look for patterns or clusters of responses in the

Table 10. Correlates of productivity with overall productivity scores.
Items contributing to the multiple regression and their significance values. Also shown are the mean scores on these items for low ($N=29$), medium ($N=28$) and highly productive ($N=31$) writers overall on a scale of (3) always/often to (1) seldom/never. N.B. Items marked by asterisks are on separate scales.

Items	Multiple R	p	Low (Score 7–17)	Medium (Score 18–26)	High (Score 27–88)
* Rank order of time spent on teaching compared to other activities (where 6 is the largest amount and 1 the least)	.38	.006	2.10	1.79	1.39
I ask colleagues from my department to comment	.48	.001	1.97	1.89	1.55
I enjoy writing	.55	.001	2.14	2.64	2.68
I complete (or at least do the first draft) of the whole thing (at one sitting)	.60	.000	1.14	1.33	1.58
I write once a week (in term time)	.63	.000	1.10	1.18	1.43
* Average time spent writing in a typical week in term time (in hours)	.65	.000	4.31	4.64	4.84
I use deadlines to force me to start	.67	.000	1.76	1.75	2.06
(Decide to write because) I perceive the need to write something more suitable for my students	.69	.000	1.34	1.36	1.65
(In thinking about the structure) I follow the normal path of a scientific paper introduction, method, results, discussion (without necessarily writing the text in that order)	.73	.000	2.31	2.21	2.52
I do most of my writing at weekends	.74	.000	1.79	1.71	1.94
I collaborate with long standing friends	.75	.000	1.66	1.79	1.94
(When writing) I experience mild concentration	.76	.000	1.68	1.46	1.39
I ask my husband/wife to comment	.78	.000	1.62	1.71	1.47

data that would indicate different styles of working, and (iii) to identify correlates of productivity – so that other psychologists, particularly beginning ones, might have a better sense of awareness of the range of possibilities that are encompassed by the words 'academic writing'. The results from our three enquiries have indicated several points which are important with respect to these aims. Table 2 shows the overall picture of the writing habits and attitudes of highly productive psychologists; Tables 3, 4, 5 and 6 show that personality styles affect productivity; and Tables 7, 8 and 9 show that the correlates of productivity vary with different kinds of product.

Some comments on the overall picture

The overall picture shown in Table 2 replicates some of the findings in other related research. Boice and Johnson (1984), for instance, found in their survey of academics in general that the most productive writers, 'seemed to like working in a regular (as opposed to a sporadic) fashion, to have little anxiety about writing, and to minimize negative attitudes about the editorial process'. Mitchell et al. (1985) found that 'the enjoyment of doing it' was the most important motivating factor among their writers in the organisational sciences, and that more experienced and productive members of their sample enjoyed it more than less experienced and less productive members. Kellogg (1987) reported for his engineers a small but significant correlation of +0.27 between drawing up rough plans and productivity.

In the present study 66 of the sample (i.e. 75%) used or had access to word processors: this percentage was considerably higher than the 10% reported by Boice and Johnson (1984) for their writers studied in 1982 and the 14% reported by Hartley and Knapper for their writers in 1983. The data given in this paper (collected in 1986) thus indicate a not unexpected increase in the use of word processors. The data also suggest that writing habits change with experience: 24 out of the 66 respondents (i.e. 36%) who used or who had access to word processors had progressed from using them solely for aiding the revision of text to composing with them as well. However, the use of word processors did not go especially hand in hand with productivity, and there was some evidence that our more productive chapter writers were less likely to compose with a word processor. In short, it seems that most of our respondents kept to their traditional habits whether or not they were using word processors to aid their revision or to compose.

In the Hartley and Knapper study, very few writers reported that they used dictation. In this study only 7 respondents reported that they used it sometimes (i.e. 8%) and only one used it often or always. No relation was found between dictation and productivity in the present study – a finding which contrasts with

that of Kellogg (1986) who, in his study of engineers, did find that dictation correlated with productivity (+0.39).

In the present study most of our productive psychologists had no real preference for any time of day at which to work. The morning appeared to be slightly preferred to the afternoon and the afternoon slightly preferred to the evening. Regular working times were correlated with overall productivity, but productive book writers wrote sporadically (in term time). These findings were very similar to those of Kellogg (1986) who showed that the majority of his 121 engineers worked in the morning, and then the afternoon, but that a highly regular work schedule was not the rule.

Boice and Johnson (1984) reported that 12% of their sample (of 400) experienced 'writers' blocks' and that these figures were consistent with other estimates of phobic and anxiety-related orders in the general population. In the present study 66% of the respondents said that they rarely/never had writers' blocks (but writers' blocks featured more clearly with the anxious writers, as shown in Table 4). This percentage was much less than that reported by Hartley and Knapper who found that 'almost every respondent confessed to experiencing writers' blocks'.

Sex and age differences

There were few sex differences in our data. Only 11% of the sample were women, and this proportion reflects the 13% given by Boice and Johnson (1984) and the 14% of psychologists given by De Meuse (1987). De Meuse (1987) makes the interesting point that – in psychology – there has been an increase recently in the proportion of women writers, but that this is part of a U shaped curve: the proportion of women psychology writers in the 1920s was 25%. The median total productivity score of the women in our sample was 21 and for the men it was 21.5. Boice and Johnson (1984) similarly found that gender was not related either to writing output or to most writing habits. However, these findings contradict those cited in other research (see Boice & Jones, 1984; Over, 1982b; and White, 1984) where greater productivity is reported for the men. Over (1982b) reported that women psychologists were more likely to be perfectionist writers – which is perhaps related to our finding that women appeared to be 'thinkers' rather than 'doers'. Boice and Kelly (1987) argued that differences between men and women writers have become smaller in recent times, but even so, they found that women experienced more discomfort about pressures to publish, felt more adversely effected by harsh reviews and reported less confidence in their writing than did men.

Over (1982a) showed that the research productivity of psychologists declined with age. The median rates of productivity for our sample divided according

Table 11. Age and productivity.

Age Groups	N	Median number of products over three years		
		Books	Chapters	Papers
25–34	14	0	1	8
35–44	52	1	3	8
45–54	15	1	3	6
Over 55	7	1	2	4

to four age groups is shown in Table 11. This table does suggest some age related changes: books and chapters feature less in the early years and papers decline in the later years. We have not analysed these data further here as members of our sample were selected for their productivity without controlling for their age or sex, and, as can be seen, the majority fell in the age group 35–44. It was however interesting to observe that the 'anxious doers' shown in Tables 5 and 6 were significantly younger than members of the other groups ($F=4.32$, df 1,46, $p<.04$).

Personality and writing

Many writers have discussed personality differences within and between disciplines and it is beyond the scope of this paper to do much more than merely comment on this issue here. Reviews of work in this area are provided by Fox (1983), Mitroff & Kilmann (1978) and Rushton et al. (1983).

Some writers (e.g. Hudson, 1966) have suggested a bias towards convergent thinking in scientists and divergent thinking in people in the arts. Initially, because psychologists typically span the arts/sciences divide, we thought that it was likely that our 'doers' (convergent?) might have science backgrounds, and our 'thinkers' (divergent?) might have arts ones. To check this out we sent another brief questionnaire to the fifty members of the four subgroups shown in Table 5 to enquire about their academic background. We received 42 replies. In fact we found that there was no significant relationship between an arts/science background and being labelled a 'thinker' or a 'doer'. 68% of the 'thinkers' had a science background and 50% of the 'doers' had an arts background. Nor was there any significant relationship between an arts/science background and being labelled 'anxious' or 'enthusiastic'. Indeed, 75% of the 'anxious' and 55% of the 'enthusiastic' respondents had a science background.

These findings suggest no real differences between academic background in our psychologists and their methods of composing or their attitudes and

feelings towards writing. We did, however, find one unexpected difference. In our follow-up questionnaire we also asked the respondents to indicate whether they thought that other psychologists would rate their publications as being at the 'hard' or 'soft' end of psychology, or 'somewhere in between' (following Biglan, 1973). We had hypothesised that our 'doers', being 'scientists', would concentrate at the 'hard' end of psychology, and our 'thinkers', being artists, would be at the 'soft' end. Again, it happened we found no significant differences between the proportions of thinkers or doers classifying themselves in these categories. However, a greater proportion of the enthusiastic writers (59%) saw their work as being at the 'hard end' of psychology, and a greater number of the anxious writers saw their work as being at the soft end (23%), or in between (62%). These differences were significant (three-way Chi square = 6.8, 2df, $p < .02$). These data again disconfirm our notion that our 'doers' would be scientists: and it seems that attitudes towards writing (anxious-enthusiastic) are more significant than are methods of composition for distinguishing between our subgroups.

Lowenthal and Wason (1977) and Phillips and Pugh (1987) also discussed a number of differences between academics of all disciplines who responded to their questionnaires and interviews. One particular distinction they drew was between writers they called 'serialists' and those they called 'holists'. Phillips and Pugh state that 'serialists' see writing as a sequential process in which words are connected as they are written, and that they plan their writing in detail in advance. 'Holists', on the other hand, think a lot as they are writing, and they produce a succession of drafts. Phillips (personal communication) suggested that her 'serialists' may be similar to our 'doers' and that her 'holists' may be like our 'thinkers'. Phillips makes the point that in both the earlier research and in ours there is not a straightforward split as one might expect between scientists and people in the arts. In all three studies serialists/doers and holists/thinkers occur in both the sciences and the arts. It may be then that dimensions like 'convergent' and 'divergent' differentiate between the approaches of scientists as students, but that the picture is more complex (and subtle) for experienced and practical academics who are a self-selected and trained group.

The studies described above focus on single personality dimensions, and thus they oversimplify the differences between people. Riley (1984a,b,c) describes with case histories how the same writer can tailor his or her approach in different ways according to the circumstances. In another interesting article Ritchie (1985) speculates about the possibility of different kinds of people in the organisational sciences having different perspectives on the relation between teaching and publishing. These different perspectives can influence people's attitudes to writing and serve to remind us that people publish for many different reasons.

Further issues

At this point we wish to consider some other problems with our research. Clearly, the use of a questionnaire in itself invites comment. As noted by Hartley and Knapper, the questionnaire approach has advantages and limitations. The main advantage of questionnaires is that responses can be quantified and subjected to statistical manipulation, and that data are available for further enquiry. Interview data, by contrast, are unwieldy, hard to encapsulate into reports, and do not lend themselves easily to further analyses. Cummings and Frost's (1985) interview study demonstrates this clearly: they present over 60 pages of verbatim responses when selecting passages to illustrate the views of 18 journal editors.

Nonetheless, there are limitations to questionnaires. Previous research on academic writing has been dogged by low response rates. (E.g.: Lowenthal & Wason, 17%; Kellogg, 29%; Hartley & Knapper, 34% and 41%; Michell et al., 58%; Boice & Johnson, 59%). It is likely that respondents in these studies were those who were most interested in writing (and were thus a biased sample). Indeed, Hartley and Knapper reported that respondents to their questionnaire had an average publication rate of three items per year, that the rate for non-respondents was only one per year, and that this difference was statistically significant ($p < .03$). In the present study this problem was overcome to some extent by focussing on productive writers within one discipline, many of whom were known by reputation to the authors. This led to a high response (75%), but hardly to a representative sample.

Further problems arise in questionnaire research when one allocates scores to varying responses. In our case this was a matter for concern in two areas. Firstly, allocating scores of 1, 2 or 3 to the frequency of a response ranging from never to always (and indeed collapsing the categories of always/often and rarely/never) must have led to oversimplification. Secondly, weighting the various products caused us some concern. We decided to weight products such as books, chapters, and papers rather differently – with the weightings listed in the introduction. At the time of our study it was difficult to find reports of other enquiries that had done this, and to follow their example. However, readers might be interested in the weightings that we have since discovered in other investigations.

Kellog (1986) decided not to weight differentially papers, technical reports, technical books, and grant proposals (or progress reports) completed during a three-year period. Kellogg tried various weighting schemes, but found the same results when books were weighted twice or ten times as much as other types of document. Respondents reported books too infrequently for them to have much influence on the analyses. Similarly Boice and Johnson (1984) simply totalled the number of journal articles, chapters and books authored

or co-authored in a three-year period. Bridgwater et al. (1982) included paper presentations, technical reports, audiotapes, videotapes and films in addition to the usual items of books, papers and chapters, but they too simply scored the number in each category.

Other investigators weighted different products differently. Meltzer (1949) claimed that as an article was equivalent to a chapter, and that as an average book had eighteen chapters, then a book was worth 18:1. Crane (1965) weighted books equal to four articles. Crewe (1986) used the following weightings to assess the research productivity of university politics departments: authored books, 10; edited books 2.5; articles in leading journals 2; articles in other journals 1; pamphlets 0.75; revised authored books 1; revised edited books 0.25. Crewe thus omitted chapters in books, and did not distinguish between editing original articles and editing previously published articles.

Rating the productivity of an academic is a thorny problem. The simple solution of counting items is of dubious validity because even items within the same category can vary in terms of length and quality (the two not being necessarily related). Simply totalling the number of publications (or even worse the number of pages) ignores the fact that some products are likely to be more influential than others.

Disenchantment with counting publications has led to more sophisticated methods of assessing productivity and, in particular, to assessing quality and impact. Citation analyses have become a popular tool for assessing the productivity of individuals and departments in this respect. (See, in the field of psychology, Endler et al., 1978; Ruston & Meltzer, 1981.) Such analyses are open to various criticisms (Christenson & Sigelman, 1985; Hartley et al., 1988), but many would argue that they are currently the best approach we have to assessing quality.

Cole and Cole (1967) produced a useful way of looking at relationships between quantity (publication counting) and quality (as measured by citation analyses). They classified the outcome (of physicists) into four categories as follows:

		Citations	
		High	Low
Productivity	High	(1)	(2)
	Low	(3)	(4)

Members of Group one they labelled *prolific*; members of Group two *mass producers*; members of Group three *perfectionists*; and members of Group four *silent*. Unfortunately, we do not have any citation counts for our respondents' products, so we are unable to comment on the quality of the

productivity that we have been discussing in this paper. (It is unlikely, though, that our enthusiastic doers were perfectionists.)

This discussion points to a third limitation of questionnaire studies, and this is the fact that – with the wisdom of hindsight – we find that we have not always asked the right questions. In our case, as noted earlier, it would have been useful to have asked more questions about the respondents' background, the nature of their preferred subject matter and the quality of their publications.

Despite these considerations, however, we still want to argue that the questionnaire approach to academic writing does have value. We see it as one of a set of possible approaches, all of which are complementary. Certainly we would be interested in reading further interview and diary studies with authors, and we regret to report that we have not found any in this context. (There have, however, been some papers in which authors have reflected on the publication process, e.g. Cowen et al., 1987; Frost, 1985; Graham & Stablein, 1985; and Toffler, 1985.)

Implications for instruction

Table 2 summarised the factors that accompanied productive writing in our study. This summary was arrived at by noting the most frequent responses to items in the questionnaire. One limitation of such a profile is, of course, that it tends to imply that writing is much the same for everyone, but it is unlikely that any single psychologist fits the profile exactly. As noted in Tables 7–10, the same writer may adopt different strategies for different purposes (short articles versus book chapters, for example).

Nonetheless, the studies reported in this paper do have certain implications for instruction. They suggest the need for description before prescription. Most academics start their professional writing with little explicit guidance from their colleagues: anecdotal accounts describe this uncertainty and its attendant fears (see e.g. Graham & Stablein, 1985). Techniques and tricks of the trade are picked up from others, and possibly by reading. Style manuals, textbooks and articles on how to write, and advice from journal editors are available (e.g. APA, 1983; Campbell, 1982; Howard & Sharp, 1983; Maher, 1978; Scarr, 1982; Turabian, 1987). Most of these materials are based on personal experiences and, although they proffer useful advice, it is not clear how much of this advice is supported by any factual evidence. One might suspect that Ritchie's eight types of person might give eight different kinds of advice. Indeed, Schoorman (1985) provides an intriguing illustration of how different kinds of advice follow from people holding different values.

The strength of our approach is that it describes the possibilities available. It allows both novices and experts (should they ever read this paper) to see how

or what they do fits in with what others do – others who are perhaps more productive than themselves. Furthermore, it allows them to consider a *range* of possibilities that they may not have seen expressed before. To take an explicit example, it would seem from our results that 34% of our productive psychologists experience 'writer's blocks' of some kind or another. This is comforting to know if you are a novice and suffer from such blocks. It is also interesting to see how such writers escape from these blocks – although it might be difficult to implement the main solution (go away and do something else) if procrastination is your problem. However, another suggestion (such as start by re-writing the last page that you wrote) may be more helpful, especially if you had not thought of it before.

Is it possible then, or worthwhile, to follow the detailed descriptions given in the responses to our questionnaire with some prescriptions – prescriptions based on data rather than just opinion? In these last few paragraphs we will attempt to do just this – whilst recognizing again that the advice we offer can only be general, rather like our profile in Table 2.

Boice (1987) identifies five common misbeliefs about writing and provides a list of 14 strategies to help increase the likelihood of writing occurring. Our own data (particularly that shown in Table 10) matches these prescriptions very closely. The strategies we recommend are as follows:

1. Make a rough plan (which you needn't necessarily stick to).
2. Complete sections one at a time. It may help to do them in order.
3. Use a word processor if possible.
4. Revise and redraft at least twice.
5. Plan to spend about 2–5 hours writing per week in term time.
6. Find quiet conditions in which to write and, if possible, always write in the same place (or places).
7. Set goals and targets for yourself.
8. Get colleagues and friends to comment on early drafts.
9. Collaborate with longstanding colleagues and trusted friends.

Boice's (1987) prescriptions emphasise points 6, 7, 8 and 9. Boice's research supports the need for avoiding distractions, for planning, and for sharing writing with supportive friends. Boice's prescriptions differ slightly from our's in that he emphasises writing in small regular amounts and avoiding 'binges' as he terms them. It is regrettable that prescriptions such as these are so easy to write but so difficult to implement.

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