

The 7 Habits of Highly Effective Researchers

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Introduction

- Technical writing teacher – NCTU, NCU, NTHU, ITRI - Motivation
- Research Researchers
- Habits to produce more papers in higher impact journals.

Understanding feelings about writing

- A recent survey of 400,000 U.S. faculty revealed 26% spent zero hours per week writing.
- 27% never published a peer reviewed journal paper. 43% had published nothing in the last 2 years.
- 62% never published a book.
- Only 28% had produced two publications in the past two years.
- Only 25% of faculty spent more than eight hours a week writing. This was self reported the real number could be much lower. (Lindholm 2005)
- Some scholars believe this number is 15% of faculty being productive writers (Moxley and Taylor)

Method

- Data from interviews, phone, conferences and universities
- Position as editor has allowed opportunity
- Compiled into 7 basic “habits” which summarize advice and tips in 7 areas
- To get the most honest responses researchers remained anonymous. This was an important condition to getting practical material.

Overview of Researchers

- An effective researcher was defined as a researcher who has published an average of five or more SCI or SCIE papers a year every year for the last five years.
- There were a total of 146 effective researchers:
- 34 - Engineering
- 17 - Management and Business
- 11 - Foreign Language and Literature
- 10 - Education
- 31 - Natural sciences
- 20 - Medicine
- 12 - Social sciences
- 6 - Law
- 5 - History and Liberal Arts

Habit #1

Effective researchers have a publication supply chain.

Quote

- “I view producing every paper like producing a product, a creative product like a movie. We have screenings, editors and deadlines to release our product. I am not always the director of the movie, that might be me or it could be one of my students. But I am always the producer. The producer needs to push everybody so that the movie can be released on time.” - Civil Engineering Professor # 78

Practice

Capturing raw material when away from the computer:

- Collect ideas: - Notebook, Post It notes
- Transferred to ongoing files
- Notes could be organized and edited into the beginning of a paper.
- Easier to begin writing when there were already ideas

Practice for master's students

Generate papers from your thesis

You invested two or more years writing your thesis.

- Try to generate a couple of papers from the most important chapters of the thesis.
- This is easier than writing a totally new paper from scratch. Work jointly with your advisor to help market your papers.

Practice

Collect a pool of potential journals for each article

- For each paper, note the pool of potential journals.
- Do not submit two papers to the same journal in two months, especially if the two articles are related.
- Editors prefer to publish two articles by different authors.

Practice

Pick journals like you pick stocks

- Do homework on journals.
- Submit paper to a journal with a rising impact factor and higher acceptance rates. avoid declining journals with low acceptance and diminishing impact factor.
- Could cause the journal to be removed from the SSCI and SCI ranking.

Practice

Identifying journals with rising impact factors

- Good specialty journal's impact factors are rising.
- General journal's impact factor, except for a few at the top, are expected to decline
- In general journals, "readers are confronted with a decreasing probability of finding at least one important article in their field." (Holub, Tappeiner, and Eberharter, 1991).
- In the 1970s, the top ten journals in every field were general journals.
- In the 1990s, half of the top ten journals were specialized journals.

Practice

Betting your research where you have the highest probability for publication.

- Sometimes journals have biases and preferences
- Subject matter: Empirical, Theoretical papers?
- Check past issues of the journal. How many Chinese names can you find?
- Preferences are known; biases are difficult to detect.

Practice

Keep a record of your publications

- Some effective researchers use a “research log” to:
- 1) Know when to send a reminder to the editor
- 2) Prevent resubmission of a rejected paper to the same journal and
- 3) Avoid multiple submission of several papers to the same journal within a short period of time.

Practice

Approach different types of journals

- Sending all papers to top journals is risky
- Sending all papers to low-quality journals is unsatisfactory
- Quantity and quality important.
- Having three papers in different journals is better than three in one journal, if the relative quality of the journals is the same.

Practice

Maintain a stock of papers under review constantly

- If the acceptance rate of the top-ranking journals is 15%, you need about 7 papers under review at all times to have one paper accepted per year.
- This does not mean that you should write 7 new papers each year.
- If your goal is to get 10 papers accepted in the first 5 years of your career, you need about a dozen papers under review at all times.

Practice

Don't put two good ideas in one paper

Separate them into two papers.

- As the paper's length increases beyond 15 pages, the chance of acceptance drops.
- When a topic is split into two papers, the probability of getting at least one of them accepted more than doubles.
- You also will get a paper accepted sooner.
 - Editors like short papers.
 - The chance that a referee will detect a mathematical error declines.
 - Referees will return the report faster.
- The chance that a referee will misunderstand the paper also decreases.

Practice

Develop template sentences

- Parts of the introduction, methods and discussion of one paper can often be recycled to make a new paper
- Keep a database of words and phrases to use in different parts of your paper

Consider different subtopics

- Average wait for an acceptance decision = 3 years.
- Average wait for a rejection = 6 to 8 months.
- If you publish in one area, then focus your effort in that field
- Continuing to write papers in the same narrow area without evidence of success is risky.
- It is like putting all your eggs in one basket.

Practice

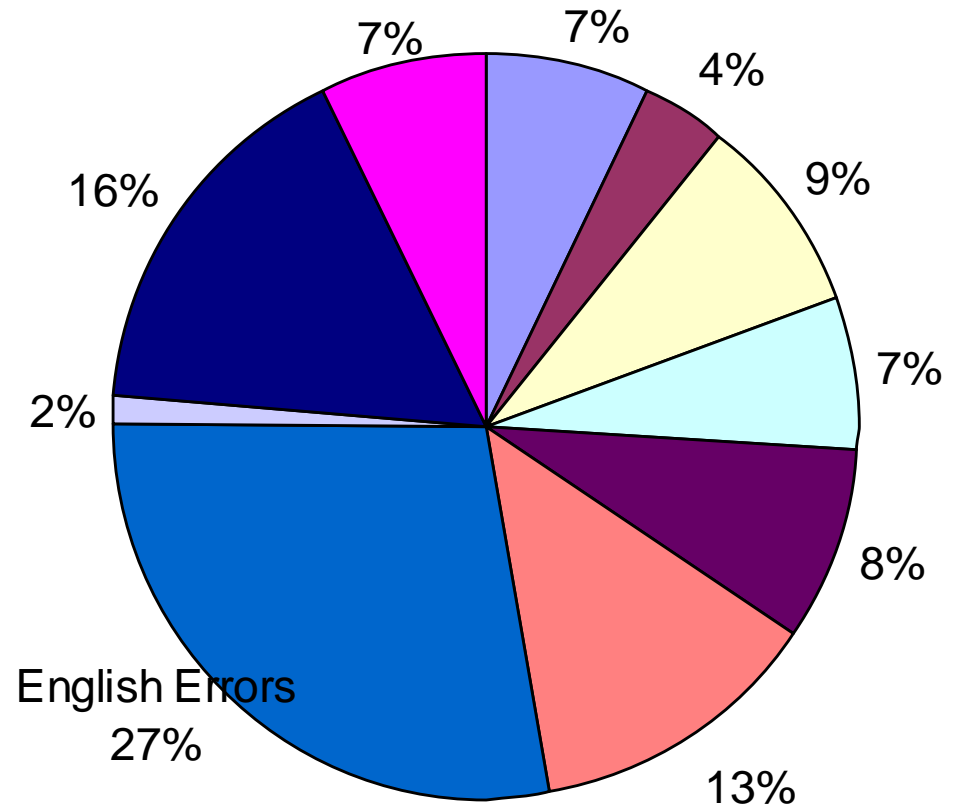
Incorporate English editing into your supply chain

Use professional editorial assistance

- Particularly if you are not a native English speaker
- Editors will not publish papers with grammatical errors.
- Referees are often biased; they have an excuse to recommend rejection with grammatical errors

Reasons for major revision or rejection of Taiwanese journal papers

- Faulty methodology
- Inadequate references
- Poor quality supporting figures
- Outside the scope of journal
- Not enough contribution to field
- Authors did not follow manuscript instructions
- Poor writing style and use of English
- Title not representative of study
- Subject of little novel interest or not generally applicable



Revision

- “After finishing a journal paper I don’t immediately submit it to a journal. It is not finished yet. I always find small errors in text, notations, explanations, or missing references, in my finished paper. I’m especially careful when rereading the introduction and abstract before submission. A small error on the first page of introduction or abstract indicates I was careless. Errors here make referees and editors conclude that the paper should be rejected. They conclude that the author is likely to be careless in content as well as English. And they might be right.” - Educational Psychology Associate Professor #12

Revision (Continued)

- “If you don't proofread your own introduction, why expect the referees to spot and correct all the errors?” - Chinese History Professor - # 2
- “You should always check spelling before submission. But there are no substitutes for reading the papers personally. Spelling checkers do not check word meanings.” -
Electrical Engineering Post Doctoral Researcher # 102

Habit #2

Sacrifice other interests

- Researchers gave up hobbies, games and time with friends to become high impact researchers. Most mentioned that they still had time for family, but less TV, computer games, and sports.
- [When you play, play hard; when you work, don't play at all.](#)
- **Theodore Roosevelt**

Quotes about sacrifice:

- “It’s the same with anything you want to be good at. You have to give up something to get something else. I gave up watching baseball games, it was painful at first, but now I enjoy the feeling of publishing so much. I really don’t miss it.” —Mechanical Engineering Assistant Professor #9
- “I always tell my students that they will get what they put in. If they waste time doing research, time won’t wait for them, and they aren’t getting any younger. If they want to make an impact they better start now because it takes a long time.” - Electrical Engineering Associate Professor #30

Habit #3

Practice research like golf

- Researchers talked about the methods, writing, grammar, and other parts of their paper like a golf player talking about different golf club swings.
- Beautiful swings are great but a few bad hits can disqualify you.
- Researchers watch and improve the weaknesses in their publishing game like an athlete perfecting his sport

Practice

Quote on specific skills

“Traditionally my introduction is a bit weak; I have a challenge selling the problem to reviewers. I’ve got to be able to present the problem better if I want people to be interested in my solution. I’m getting better but I’m constantly aware that this is a weakness, and I need to practice to improve.” – Mechanical Engineering Professor # 31

Practice

Imitate skillful writers

Read how successful writers introduce their topic and cite literature

- Imitate their words and phrases, and modify them to suit your topic
- Create a file of template sentences

Habit #4

Dramatize process by creating mental models

- Researchers see their writing and researching in dramatic terms.
- Some use strong metaphors to create exciting mental pictures to encourage themselves and their labs.
- “The great struggle” .
- Model of building a house
- Killing a monster

Habit #5

Writers use the competitive, political and supportive energy of other researchers.

- **Supportive energy:** Support groups
- **Competitive energy:** Researchers compare themselves with other researchers and keep score
- **Political:** Researchers are political.
- The negative side is that half of peer reviewed articles in top rated journals are never referenced by anyone, including the author. This shows that low impact papers are often published in the best journals because the articles are reviewed by friends of the author. (Holub, Tappeiner, and Eberharter, SEJ 1991).

Practice

Don't Criticize References

- *I think that the author knows his subject better than I do. I usually use his references to find a suitable reviewer* - Associate Editor, Journal of Retailing
- Don't emphasize the importance of your paper by putting down on other papers. Your references are probably your reviewers and they are sensitive.

Examples of offensive citation:

- *"The deficiency of Smith's approach is..."*
- *"The problems with Smith's paper are..."*
- *"A serious weakness with Smith's argument, however, is that"*
- *"The key problem with Smith's explanation is that"*
- *"It seems that Smith's understanding of the X framework is questionable."*

A better citation would be:

- *“Smith ’ s model was effective in X problem, however in Y...”*
- *“The X benefit of Smith ’ s approach are not applicable to Y...”*

Complement potential reviewers

- Important references should be mentioned in the first page. The editor usually chooses reviewers from those mentioned in the introduction and references.
- Be generous to all authors, explain why their research is significant for your analysis.
- This uses less than 1% of the space, but significantly affects the probability of acceptance

Practice

Cite researchers who like you

- Include references to authors who like your papers. They might become referees.
- Include references to people with who you met at conferences.
- This is to get a fair chance. Referees have to make an effort to be fair to unknown authors.

Meet 100 active researchers

- There are about a hundred people in your research field who are likely to be referees of your papers.
- Prepare a list of one hundred active people in your main research area. Try to meet them within a five-year period.
- Present papers at, or at least attend, two professional meetings a year. When presenting papers or attending regional, national, or international meetings, try to get to know these people.
- This is your best opportunity for networking. When you go to conferences smile and “work the room.”

Practice

Pay attention to reviewers' comments

- “I don’t think you treated Smith fairly in your literature review, his insights deserve more respect.”
- “You forgot to include Smith as a reference in your paper. His work is fundamental to understanding your research.”

Scan journal for related articles

- Try to find some related articles in the journal to which you wish to submit your paper.
- Authors who published a paper on a related subject are likely to be referees. The editor still remembers them and has a connection to them. Obviously, you need to cite their papers.
- Even if they are slightly related, try to use their references. Explain how your work is related.

Habit #6

Get rejected

- **When rejected, try again**
- Even Nobel Laureates get rejection letters.
- You may need to play “ping pong” with the paper. Submit the paper to another journal within one month.
- You do not have to revise a paper every time it is rejected. But if a paper is rejected 4 times, there is a serious flaw in the paper. Find and fix the problem.
- Why? The same referee might get it again.

Emotions on rejected paper

- 1) Depression
- 2) Anger at editor.
- 3) Anger at system.
- 4) Consider changing job.
- 5) Reviewing manuscripts and deciding the reviewers had points

Practice

Delete or hide the references to undesirable potential referees

- You can guess the identity of the reviewers from the reviewers' comments because of references and writing style.
- Editors select reviewers from your references. If some reviewers always recommend rejection of your papers, drop their papers from your references (the first time you submit). You can add them later (after the paper is accepted). You can also put them into the body of the paper where they are harder to find
- This may require rewriting the introduction with a different perspective

Eliminate any trace of prior rejections

- Do not show when the paper was first written.
- Do not show how many times the paper has been revised.
- Document property check
- Add current references

Problems of Journals

Association journals: Editors change every few years, and they usually accept more papers from colleagues and friends. Since the editors are chosen from a few major institutions, they get a larger share of publications. They are subsidized by associations. (AER, Econometrica, IEEE, ACM)

University journals: Universities protect their own interests. Will often have a stated preference for their own teachers' and students' papers. Subsidized by universities. (HBR, MIT Sloan)

Commercial journals: Least likely to have preferences or biases. Depend on reader subscriptions. (Blackwell, North-Holland, Elsevier)

Do not waste time on dead or dying topics

- If your most recent references are ten years old, it is a dead issue.
- If the most recent references closely related to your paper are 5 years old, it is a dying issue.
- It is also difficult for the editor to find suitable referees for outdated topics.
- Your inability to find enough references indicates
 - You have not read the literature.
 - Others are not interested in the topic, so, it is unlikely to get published.

How to identify “Hot Topics”

Look for clues to anticipate the next ‘big thing’

- Read top journals to identify ‘new problems’
- Read letters to the editor
- Look for controversies and unexplained findings
- Look for crossover areas with other domains
- Do database keyword searches
- Attend conferences

Everyone gets rejected

- Your options:
- Abandon the article.
- Send the article with no changes to another journal.
- Revise the article and send it to another journal.
- Protest the decision and try to resubmit the article to the rejecting journal

Practice

Avoid the journals which consistently reject your papers

Temporarily avoid journals which always reject you
The editor still remembers bad comments about your papers.
Wait until a new editor is appointed.

If you think there is prejudice on the basis of sex, race, or nationality, you may consider using initials instead of spelling out the first and middle names.

First and middle names, as well as last name, often reveal the sex, race, or nationality of the authors.

You may write your full name after the paper is accepted.

Waiting for the Journal's decision

- Causes of quick rejection:
- Back-log
- Previous paper on subject
- Editor doesn't like topic or style

When should you start contacting the editor about your paper?

- After three months once a month
- Four months twice a month
- Six months every day
- The longer the review takes, the less chance you have a publishing-reviewers may be negative
- Internal fighting in Journal
- You may want to consider withdrawing to another journal
- Editor's feedback is key in making this decision

Reminder e-mail to editor

- “I’m just e-mailing to inquire about the status of my article titled_____, which I submitted to your journal on (date).”
- Don’t get angrier over time, just keep sending the same e-mail more often
- Sometimes editors appreciate the reminder

Do not attack referees

Generally, it is not a good idea to attack the reviewers.

- Do not say: "The referee's idea is bad, but mine is good."
- Better to say, the referee has an interesting idea, but the proposed idea is also good, particularly because of this or that fact.
- If the referee makes a good point, explain why you are not pursuing that strategy in the paper.

Habit #7

Writers write (and don't always enjoy it.)

- Common misunderstanding that good writers enjoy writing
- Many hate writing. But enjoyed the results.
- Forced themselves into a daily writing routine.

Quotes about action

- “Inspiration is overrated, it’s all about hard work and there’s really no way around it.” – Computer Science Professor #77
- “Nobody loves English writing. It is only a tool, a necessary tool, without it no one will appreciate our good ideas and reviewers will kill us” – Electrical Engineering researcher- # 3

Planning vs. Action

- Talking about writing isn't writing. Thinking about writing isn't writing. Dreaming isn't writing. Neither are outlining, researching, or taking notes. All these may be necessary to getting a project completed, *but only writing is writing.*
- Pen to paper, fingers to keyboard

Practice

Researchers *learn* motivation for writing about their topic.

- Researchers first forced themselves to write and later developed an interest in writing.
- Professor William James

Building the Writing Habit

- **The same time.**
- **The same place.**
- **Carry a notebook**
- **Quiet place. Get rid of rid of negative thoughts.**
- **Sit alone in silence.**
- **Ideas, not grammar, for the first draft. Rewrite.**

Make writing a daily habit

- Use timed bursts
- Rational and reactive self
- Lie to yourself

Do not read too much

Many researchers use the excuse of more reading to prevent writing themselves.

You can't read every paper ever written on a subject. Remember your goal is to write and publish a paper, not to read everything.

If you read a dozen papers on a topic, you should have enough material to start writing a paper. Add your own ideas to this base of knowledge.

Reasons researchers don't write

- **I am really too busy.** – 15 minutes a day
- **Teaching preparation takes all my extra time.**
Good teachers produce more writing (Sax 2002)
- **I will write just as soon as _____** - You don't have to be perfect first

Reasons continued

- **I'm going to make writing my number one goal in life.** “the most valued activity carries demands for time and perfection that encourages its avoidance (Boice 1997)
- **I couldn't get to my writing site** – become flexible with your writing environment

Reasons continued

- **I have to read just one more book.** - Mastery is an illusion, some of the best research done in isolation
- **I just can't get started.** - Reward yourself for writing, phone or e-mail partner. Plan an agenda for next writing session

Reasons continued

- **I'm afraid of writing because publication is so permanent**- Peer review helps
- **I'm not in the mood to write right now** - Behavior modification theory.
- **My childcare responsibilities are preventing me from writing** – Use small blocks of time, babysitters, more efficient (Sax 2002)

Reasons continued

- **My thesis advisor is a bigger problem than a help** - Try writing without help first or change advisor
- **I can't sit still** - Short bursts with an alarm
- **I write so slowly that I never seem to get much done** – Most people write slowly

Reasons continued

- **If I have a long productive writing day, I have a hard time getting started the next day -Common problem**
- **I am eager to write but I don't have the material or scrolling resources – Third World countries**
- I have to make progress on several writing projects at one time and I am in a panic – two projects are better than one

Reasons continued

- **I get distracted by Web surfing e-mailing and text messaging – Disconnect yourself**
- **I need big blocks of time to write in my schedule doesn't allow such blocks – Short blocks more productive**

Researchers are proud of the term researcher and their total impact

- **Quote**
- “I used to think that research all happened in a lab. That my results were the only thing that mattered. I now realize that the experiment isn’t over and the results haven’t really happened until they have been shared with a wider academic community. Writing is part of research and I’m proud to be both a researcher and author because the two can’t be separated.” – Computer Science Professor - #77

Conclusion: Effective Researchers

- 1) Publication “Supply Chain”
- 2) Sacrifice other interests
- 3) Practice research like a golf game
- 4) Dramatize process by creating mental models
- 5) Use competitive, political and supportive energy
- 6) Get rejected
- 7) Write, (and don't always enjoy it)

For More Information

Handout of our talk available

- www.editing.tw
- www.seminars.tw
- **Editing** from 86 colleges and universities, domain specialized editors, understand Taiwanese English, educational comments
- Three Stage **translation** process to preserve meaning and clarity
- **Books**
- How to write and publish an academic paper in 16 weeks
- How to attend, speak or present a poster at an academic conference
- References
- Michaelson, Herbert, *How to Write & Publish Engineering Papers and Reports*, Oryx Press, 1990. Chapter 6 discusses abstracts.
- Bob Bly, *Research papers for dummies*, Wiley and Sons Ltd, 2004
- Kwan, a Publishers Handbook, University of Illinois <http://www.roie.org/>