

→ **SAGE Study Skills**

How to Read Journal Articles in the Social Sciences

A Very Practical Guide for Students

2nd Edition

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Introduction

Previous works that provide tips on how to successfully write research papers, theses, dissertations, and journal articles have emphasized that writing is like any other skill: it has to be developed, taught, and practiced daily (Cone & Foster, 2006; Glatthorn & Joyner, 2005; Miller, 2009; Rudestam & Newton, 2001; Silvia, 2007). Although graduate students are taught how to teach during their graduate education, through seminars and by working as teaching assistants, Silvia (2007, p. 6) laments that they are not taught how to write: ‘the most common model of training is to presume that graduate students will learn about writing from their advisors.’ The same argument could be made about reading.

In previous works, readers are taught how to structure their time to facilitate writing, how to outline their thoughts to prepare to write, how to structure a paper to submit to a journal, and how to conceptualize any ‘action that is instrumental in completing a writing project’ as writing (Silvia, 2007, p. 19). Professional academic writing, Paul Silvia argues, is a serious business that entails tremendous complexity, as the literature on a given topic must be extensively covered, data carefully analyzed, and the descriptions of research methods precisely worded (see Landrum, 2008; Noland, 1970). To do so, Silvia suggests, we may even have to read scientific journal articles we do not particularly like. The act of reading, again, is treated as a tertiary activity, necessarily subservient to and less consequential than writing.

This book is necessary because reading is often a blindly assumed and unexamined part of the writing process, for undergraduate and graduate students alike. If writing is learned throughout undergraduate and graduate education, as part of the honors thesis, master’s thesis, PhD dissertation, and journal-article writing process, then, to my knowledge, no such formal and systematic training exists for reading in the social sciences; instead, students bring to universities – undergraduate and graduate – the reading habits and techniques they acquired in their formative years in primary/elementary schooling. Unlike philosophy and literary criticism, where careful reading is taught to students at the undergraduate and graduate level, disciplines in the social sciences tacitly expect students to already be competent readers.



With such an unexamined assumption in place, it is not surprising that advanced undergraduates (third- and fourth-year students in institutions of higher education), and graduate students have trouble reading critically in order to write their undergraduate research papers, honors theses, and graduate-level texts. Rather than assuming that students already possess the skills necessary to be critical readers, this book teaches students – advanced undergraduate students writing research papers and honors theses, and graduate students writing theses and dissertations – how to read so that they are able to maximize their output in the writing process. Reading critically is an essential skill at all levels of instruction at university.

This book illuminates the steps in the prewriting process that scholars in the field have uncritically presupposed in the practice (not theory) of writing and reading. For example, I am sure that students, at one time or another throughout their career, have heard the directive, ‘You have to read critically’ from their professors. The problem with that benign advice is that telling someone to do something is meaningless unless how to do that something is actually taught. The numerous how-to books on the market do little better. That is, in such books, readers are given general and vague instructions on how to read critically; they are told that a good critique of the literature is developed from ‘careful readings.’ Others advise that readers need to maintain a ‘critical perspective.’ The problem common to all such benign prescriptions is that only a few have explicitly unpacked what it means to read ‘critically.’

Sometimes, the directive to be ‘critical’ seems elusive and unduly complex at times and elegantly simple in others. For example, Wallace and Wray (2011, p. 29) state that a crucial skill involved in critical reading entails ‘identifying authors’ underlying aims and agendas so that you can take them into account in your evaluation of the text in hand.’ Critical reading, according to Wallace and Wray, means discerning the main claims, as well as hidden ones, of one’s readings. Such reading is done with an eye toward identifying gaps that exist in the literature, and as a way of preparing one’s own paper. Cottrell (2011) echoes a similar point, arguing that critical reading involves analyzing, reflecting, evaluating, and judging a text’s merits. She further posits that critical reading is a logical extension of critical thinking which includes paying ‘attention to detail, identifying patterns and trends ... taking different perspectives, and considering implications and distant consequences’ (p. 5). That is, Wallace and Wray (2011) and Cottrell (2011) tacitly suggest that reading occurs on numerous levels, and involves completing several tasks at once. Reading in an academic context is neither easy nor simple. As a way of keeping track of one’s ideas that arise during reading, some scholars advise creating mental maps or asking questions.

Or, if maps are provided, the directions are too vague or unwieldy to be effective. For example, there are two well-known reading strategies that prior scholars have noted: the EEECA model and the SQ3R model. In the first, readers are taught to Examine, Evaluate, Establish, Compare, and Argue (EEECA) so that new claims can be developed (see Jesson, Matheson, & Lacey, 2011, p. 48). In the second, readers are taught first to survey, skim, and scan the readings, to question if the readings are relevant to a student's aims, and then to 'read the text carefully ... recall the main points ... and review the text to confirm' (Ridley, 2012, p. 64). These traditional methods of reading are just a bit better than the vague directions that are often provided by instructors.

According to others who have written on this topic, 'critical' reading is important because it allows readers to develop new ideas, claims, and unique 'spins' if they don't have new ideas of their own. Research articles in social science journals, however, are necessarily full of new and yet-to-be-developed ideas. A gap or a deficiency in the literature – absence of new ideas – is the reason why scholars write journal articles; that is why authors discuss limitations of their research and recommendations for future works in the papers they are writing – as a tacit way of setting up the work they will do in the future or of providing an itinerary for others who may want to remedy that gap in the literature. Simply put, critiques are embedded in bits and pieces in journal articles; readers just have to be taught how to decipher them in the text. Writers have difficulty developing new ideas because they have not learned the art of textual criticism and critical reading – not because new ideas do not exist. Using my reading codes (see Figure 1), this book teaches students how to approach social science journal articles as texts that can be deciphered structurally, mechanically, and grammatically. This book thus fills in the content of general advice, such as 'read critically,' by teaching students the techniques of critical reading.

Another significant problem that is not adequately addressed in previous work is one of management. Let's suppose that an honors thesis student or a beginning graduate student is writing a thesis on a chosen topic, and has identified 50 peer-reviewed journal articles that have been published within the past 15 years. Is there a way to read the articles that will enhance the writing process by organizing the themes and patterns in the literature as well as their critiques? Most how-to books recommend the use of 3×5 index cards as a way of organizing and collating relevant information to be used during the reading, outlining, and writing process. To be able to even come up with a rough outline, however, the student will have to have digested and organized the readings in a particular way; and unless that student sat down with a blank sheet of paper and kept track of recurring themes, patterns, and gaps in the literature, the critique of the literature that should have emerged is apt to get lost in the unstructured reading.

For example, consider the ‘concise critical notes’ form that students are advised to fill out when reading articles and papers (see Cottrell, 2011, p. 157). It is similar to the 3×5 index card method in that the form contains slots for bibliographic information. However, in addition, there are nine sections that contain a total of 13 questions that need to be answered to use the form effectively (e.g., ‘What is the paper setting out to prove? How does it advance our understanding of the subject?’). Similarly, Wallace and Wray’s (2011) ‘critical analysis of a text’ form has ten questions that readers should answer after they have completed their reading of a text; those ten questions contain an additional 26 questions that need to be answered in order to complete the form – a total of 36 questions. Some of those questions include, ‘What type of literature is this? What is being claimed that is relevant to answering my question? ... and To what extent are claims supported or challenged by others’ works?’ (pp. 237–46).

Answering the questions that Cottrell (2011) and Wallace and Wray (2011) pose in their respective forms would indeed constitute a critical engagement with one’s reading, as the answers would, essentially, enable readers to see recurring themes in their readings, as well as potential criticisms that they could develop to use in their own papers. However, the sheer number of questions, as well as the form of the answers, fails to provide the structure and constraint needed to maximize their utility. Simply put, rather than expecting readers to fill out answers in extended narrative form, a code-based system of note-taking would provide the constraint needed to organize the responses to those questions. A code-based system would be much more effective for the following reasons.

1. The responses would be based on the textual function of the articles that are being read.
2. Students would be able to synthesize their ideas more effectively because they would receive adequate practice in reducing and condensing complex ideas and sentences into one to two key words (thematic codes).
3. Those key words would facilitate visual inspection and easy retrieval. Repetition of recurring themes in results and summaries would be easier to identify using one to two words rather than lengthy sentences.

The reading code sheet that I have developed systematizes the reading, note-taking, and organizing of voluminous amounts of information in an easily identifiable and retrievable format. It is my contention that previous works on reading and writing are inadequate because the two acts are treated separately. As I see it, they ought to be treated similarly. The method of managing information gleaned from the readings that I am advocating in this book (Reading Code Organization Sheet or RCOS) is not new or novel. In fact, the form of RCOS is portended in other well-regarded works. For example, Machi and McEvoy (2012) discuss how to use their Literature Review Tally

FIGURE 1 Dr Phil's reading codes for an RCOS for social science journal articles

Code location in text	Code	Meaning
Introduction/ Literature Review	WTD	What They Do: what the author(s) purport to do in a paper/book; this code captures the main research question that the author is posing in the text.
Literature Review	SPL	Summary of Previous Literature: this sentence, paragraph, or page describes a simple summary of the results from prior studies. This process entails a tremendous amount of condensation, taking complex ideas and reducing them into paragraphs, sentences, and if the author is brilliant, one word.
Literature Review	CPL	Critique of Previous Literature: the author is providing a critique and a description of the limitations of the previous and existing scholarly works. CPL is conceptually related to POC, GAP, and SPL since the deficiencies in the existing works provide a theoretical, methodological, and analytical justification as to why the current work is warranted. CPL usually follows SPL since the author has to first proffer a body of ideas before it can be criticized.
Literature Review	GAP	Gap: the author is (probably in some systematic way) pointing out the missing elements in current literature. When GAP and CPL are done properly, a reader should be able to anticipate the RAT even before the author declares it.
Literature Review/ Introduction	RAT	Rationale: the author is providing the justification of why the work is necessary and warranted. RAT should be deduced and logically follow if the author has CPLed and GAPed previous literature.
Results/Discussion	ROF	Results of Findings: describes the primary results of the current article. This code is usually found in the abstract, results section, and conclusion since this point must be hammered at least three times in most social scientific journals.
Discussion	RCL	Results Consistent with Literature: describes the findings of the current work that are consistent with the existing literature. That is, the author's own work supports the work that others have done.
Discussion	RTC	Results To the Contrary: describes the findings of the current work that are inconsistent with the existing literature. That is, the author's own work does not support the work that others have done.

(Continued)

FIGURE 1 (Continued)

Code location in text	Code	Meaning
Conclusion	WTDD	What They Did: what the author(s) have done in a paper/book; a logical and sequential cognate of WTD. This code captures the main research question that the author has answered and contributed to the body of literature on the chosen topic.
Conclusion	RFW	Recommendations for Future Works: the current work is not complete; the author is providing a map of what is still lacking (GAP) in the literature and recommending that others do in future work.
Reading Strategies		
	POC	Point of Critique: a deficiency in the current article or literature that you (the student author) could critique and exploit as a way of remedying the gap in the literature for a future paper.
	MOP	Missed an Obvious Point: the author that you are reading has missed an obvious theoretical, conceptual, and analytical connection to earlier works. (MOP usually occurs when the article's author has not read sufficiently or widely.)
	RPP	Relevant Point to Pursue: and to mine in another paper. Although this code does not point out any limitations and gaps in the current work, the stated point could be used as a POC in a future paper. Obviously, RPP entails MOP and GAP.
	WIL	Will this theoretical and conceptual connection be logically teased out to its conclusion to reconcile a text that is fraught with tension and needs resolving?

Matrix (LRTM). Jesson, Matheson, and Lacey (2011) argue for the effectiveness of visual note-making systems such as mind maps and column-based presentation of notes. Ridley (2012) also discusses the value of a tabular form of note organization. In that sense, RCOS only extends the general strategies that previous scholars have already noted. It differs because the reading codes organize the information in a more effective way than other reading and information management techniques.

There are other books that teach students how to understand and digest existing research. Most of the how-to books in academia, with the possible exception of Paul Silvia's (2007) *How to Write a Lot* and Scott Harris's (2014) *How to Critique Journal Articles in the Social Sciences*, suffer from a major shortcoming: they are unwieldy. For example, *Reading and Understanding Research* (Locke, Silverman, & Spirduso, 2010) is 312 pages long; *How to Write a Master's Thesis* (Bui, 2009) is 320 pages; *Surviving Your Dissertation: A Comprehensive Guide to Content and Process* (Rudestam, 2007) is 328 pages; even *Conducting Research Literature Reviews: From the Internet to Paper* (Fink, 2010) is a whopping 272 pages. A book that teaches students how to read cannot be long and cumbersome; it needs to be succinct, concise, and operational – not long-winded and theoretical. *How to Read Journal Articles in the Social Sciences* meets that goal.

This book is directed at upper-level undergraduates and graduate students. This book's primary aim is to be used as a supplementary text that undergraduate honors thesis supervisors and directors of teaching and learning centers in colleges and universities can recommend to their students, and as a supplementary text in first-year professional seminars for graduate students. *How to Read Journal Articles in the Social Sciences* will be relevant and helpful in preparing their students to write original research papers, advanced literature reviews, and theoretically oriented essays in undergraduate writing courses and research methods courses as well. It is my contention that reading critically is a necessary part of undergraduate and graduate education.

A book like *How to Read Journal Articles in the Social Sciences* will be particularly useful as preparatory reading material for international students who are preparing to go abroad to North America, the United Kingdom, and Australia for their studies, particularly students from Asia. First, China, India, and Korea contribute the largest share of international students who come to North America for undergraduate and graduate education. Second, even native speakers of English experience difficulty reading and writing social science texts when they enter upper-level courses in their undergraduate curriculum and graduate school. That is because they have not been taught how to do so.

International students who speak English as a second language therefore have to shoulder a double burden: (1) they have to acquire sociolinguistic

competence as second language speakers in order to function in their new social milieu; (2) they have to acquire vocabulary competence in their respective disciplines and in academic writing. Rather than trying to comprehend and act on vague instructions from their professors and thesis advisors about ‘reading critically’ and ‘synthesizing the literature’ during the writing process, my book will teach students how to read so that they can organize information during their reading to be able to write more effectively. Being prepared to read critically during their studies will help international students overcome burden (2) before they encounter it. Of course, a similar point can be made about native speakers of English, too.

A Note on Terminology

A few explanations are in order regarding the terminology that will be used to describe the various institutions of higher learning throughout this book. I do so to eliminate any potential confusion that may arise in readers. For example, ‘high schools’ and ‘secondary schools’ refers to schooling that precedes higher education in North America (the US, Canada). In countries such as Sweden, Norway, and Finland, these schools are known as upper secondary schools. Such distinctions apply to institutions of higher education as well. Again, as an example, schooling that occurs after high school in the US is collectively referred to as ‘community colleges.’ Community colleges are two-year institutions where vocational and technical trades are primarily taught. They are also institutions some students attend prior to enrolling in a four-year college or university as a way of defraying the burgeoning cost of a university education. Community colleges in Canada are known simply as ‘college.’ In Australia, these types of institutions are known as ‘technical colleges,’ in Finland, ‘vocational schools,’ in the UK, ‘further education.’ While the names differ, the function of these types of institutions is similar across countries.

Colleges and universities in an American sense are known as ‘university’ in Canada, and higher education (HE) in the UK, Sweden, and Australia; in Finland, they are referred to as bachelors’ programs. Despite the different names, their functions are similar. The emphasis on higher education and learning, as I see it, is still imbued with that original Aristotelian spirit; not much has changed I think. Students go to a university to profess their ignorance and to learn something new. Students do not go to a university to confirm the beliefs they already hold. When I use the term ‘college’ or ‘university,’ I am referring to four-year institutions of higher education rather than the technical and vocational schools and community colleges. The term ‘undergraduates’ refers to students who are enrolled in four-year institutions of higher education.

Similarly, when I use the term ‘graduate education,’ I am referring to schooling that occurs after the completion of a four-year degree (e.g., master’s degree, PhD degree). I refer to students in the master’s and PhD programs as ‘graduate students.’ That I refer to four-year institutions of higher learning as colleges and universities, and students in those institutions as undergraduates, reflects my American roots more than anything. I apologize to readers who may find my American sensibilities a bit obtuse. But as one famous cultural figure (Popeye) once claimed, ‘I yam what I yam and that’s all I yam.’

This distinction between names that are used to describe the institutions of higher education is also meaningful in another way. It is implicative for the type of written work that is carried out in the completion of those degrees. For example, a dissertation in a North American context refers to a very specific type of document that is reserved for doctoral (PhD) students. A dissertation is the culminating text that PhD students must complete in order to be awarded their degrees. It is not applicable to master’s students or undergraduates. In the UK, however, the term dissertation is used in a broader sense. In this book, I use the term dissertation to refer to the projects that are restricted to PhD students. The term ‘thesis’ requires an additional explanation.

‘Thesis’ is used in two ways to describe the document that graduates and undergraduates submit in order to complete their degrees. For example, a master’s degree is usually a two-year program of study in the US and Canada. Master’s students generally complete a thesis in order to meet the requirements of that degree. Although a master’s thesis requires original data collection and analysis of some sort, thereby making it empirical, some students write conceptual and theoretical pieces that are not empirical. Similarly, upper-level undergraduates (third- and fourth-year students in a four-year university) who are talented and bright undertake an honors thesis. In the US, honors theses are written by students who are part of an honors college/program, distinct from the general university curriculum. An honors thesis involves a two-semester sequence of study where a literature review and a proposal defense occur in the first semester, and data collection, analysis, and several drafts before completion in the second. In Canada, honors (honours) theses are written by students who must apply and be accepted by their respective programs in order to undertake such a project: it also requires a two-semester sequence of study. An undergraduate honors thesis is very similar to a master’s thesis in that it requires original data collection and analysis. Both are demanding and require quite a bit of work. While the names used to designate such projects may differ across countries, the function of these types of documents is very similar: production of an original and creative claim/argument/finding of some sort.

There are a host of other terms that are used to describe the numerous types of writing assignments that are given to students in colleges and universities: essays, position papers, reflection papers, term papers, literature reviews,

annotated bibliographies, and research papers, just to name a few. A ‘research paper’ generally is assigned in third- and fourth-year courses to get students to critically evaluate a topic, and produce a new claim and argument of sorts. It is used as a general term to encapsulate writing projects that require synthesis and critique of the literature along with the production of an original argument and/or claim (Wallace & Wray, 2011). A research paper may or may not require empirical aspects. Capstone projects refer to the papers that undergraduates are required to complete in their fourth year in a university. The name given to this paper and project also varies by institution in North America: they are sometimes known as ‘writing intensive’ or ‘writing in the discipline’ courses. My current institution calls them ‘integrating projects,’ for students are expected to integrate their previous coursework and knowledge into an original, final paper. The names differ, but the function is the same. I will use the term ‘research paper’ to refer to original papers that undergraduates have to write which are non-theses.

Finally, one more qualification is needed on address terms used in this book. Students, sometimes, are not sure what to call their teachers in colleges and universities. I remember how annoyed I became when my students in Louisiana called me ‘Mr Phil.’ I later learned that appending the title ‘Mr’ was a way that students signaled deference, especially to people they liked. The annoying address term did not seem so annoying after I learned that lesson. I was flattered. When I finished my PhD, students changed the title from Mr to Dr and started calling me Dr Phil. That appellation has since stuck.

‘Dr’ is a title that is conferred by a terminal degree-granting institution. One earns that title by completing the requirements for a PhD and writing and successfully defending a dissertation. I could become homeless next year and live on the street, but no one can take that title away from me. It’s mine. I earned it. Period. The title ‘professor,’ however, is a position that an institution of higher education confers on a person who is hired to teach for them – at least in a North American context. In Europe and the UK, that title means something far more prestigious, and is not used lightly. If I am no longer teaching at a university, I am no longer a professor, so the title does not apply. In this book, I use the term ‘professor’ to indicate someone who appears in front of a university class and teaches. Again, while the name and meaning used to designate such a figure differs by country and convention, the work done is similar. I use the term professor and teacher interchangeably throughout this book.

Organization of the Book

Chapter 1: The Challenges of Reading. This chapter begins by examining the previous models of reading that have attempted to teach the techniques of

critical reading, and discusses one of the main limitations students face when trying to implement such techniques. The challenges of reading on multiple levels are discussed. The readers are then introduced to the reading codes in the context of social science journal articles. This chapter explains why students need to get their primary information about the topics they have selected for their papers from reputable journals rather than other sources.

Chapter 2: Trying to Fix Mechanical and Structural Writing Problems with Abstract Tools. This chapter begins with one of the most perplexing and mysterious aspects of paper writing in colleges and universities: how professors arrive at the grades they assign to students' papers. In this chapter, I describe the necessity of and the origins of the grading code sheet that preceded the Reading Code Organization Sheet. I relate the failures I encountered trying to teach students how to write research papers and theses using the grading code sheet.

Chapter 3: Should I Even Read This? How to Read the Abstract, General Introduction, and Methods Sections. This chapter teaches students how they ought to read the abstract, the introduction, and the methods sections using the reading codes. By teaching how to read the abstract, this chapter attempts to show students how to mine for the pertinent information necessary to determine if an article should be included in one's literature review without actually reading the entire paper. By learning how to critically read introductions, the practice of anticipatory reading is demonstrated, whereby students use the elements contained in the introduction to rehearse and anticipate the shape of the more complex arguments to emerge in the rest of the text. Students are also taught how to use one particular reading code, Point of Critique (POC), in their reading of the data and methods section to cultivate a methodological critique of previous studies along with a rationale for their own proposed works.

Chapter 4: So What? How to Read the General Literature Review, Psychology Introductions, and Results Sections. This chapter teaches students how they ought to read the literature review using the reading codes. Students will learn the rudiments of structural and grammar-based reading to anticipate emergent critiques, hypothesis generation, and rationale for a study – hence answering the 'So what?' question. Students are also taught how to make the transition from the act of reading the results (ROF) section to organizing summaries (SPL) as part of their own writing process.

Chapter 5: Becoming a Part of the Scholarly Community: How to Read the Discussion and Conclusion. This chapter teaches students how they ought to read the discussion and conclusion using the reading codes. Students will learn how key words in both these sections of journal articles tether our work to those of previous researchers.

Chapter 6: Highlighting and Organizing the ROF, SPL, CPL, GAP, RFW, and POC. This chapter proffers practical tips for using the accoutrements of

reading: ruler, pen, and highlighter. I demonstrate how these essential tools of reading are to be used to slow down the act of reading and to ‘do’ the act of critical reading that others have advised but never taught. In addition to reading, this chapter provides concrete suggestions about how to organize the information gathered through the reading codes to maximize organization, management, and retrieval of information necessary for paper writing. After students are introduced to the Reading Code Organization Sheet (RCOS) as a way of collecting, organizing, and managing information, they are taught how to create an outline using the RCOS before writing that first professional-quality research paper.

Chapter 7: Will the Reading Organization Code Sheet Work on Non-social Science Texts? This chapter tests the applicability of the RCOS to non-social science texts. In particular, classic philosophical works are used as examples to determine the generalizability of the RCOS to book-length texts and journal articles in philosophy – arguably, one of the more abstract and abstruse disciplines in academia. This chapter argues that the ideas foundational to the reading codes are applicable across various types of academic texts and disciplines.

Chapter 8: Concluding Remarks. This chapter argues that reading and writing are inextricably related acts. That is, despite the solitary character of both academic activities, they are fundamentally social and intersubjective acts, inaugurating readers and writers into the socio-moral order of the scholarly community.

