

WRITING AT THE GRADUATE LEVEL: GETTING STARTED

New Places, New Projects, New Expectations

In choosing a graduate degree, you are at the beginning of a series of new experiences. Some new experiences, like snow, skiing, and maple syrup, are enjoyable. Other experiences, like reading and writing, can be frustrating. Even though you may think you are the only unsure student, there are new expectations for all graduate students. Graduate students frequently question their abilities, so remember that your feelings are likely shared by other students.

You Are Prepared

From your undergraduate degree and work experience, you have the following transferable skills:

- ✓ Researching scholarly information
- √ Reading scholarly articles
- ✓ Mastering lab reports
- ✓ Recalling information when needed
- ✓ Constructing term papers
- ✓ Thinking critically

These skills can be applied to the new expectations of graduate school:

- ✓ Demonstrating critical thinking through your organization of material
- ✓ Focusing on one key idea or topic (depth rather than breadth)
- ✓ Contributing to knowledge in the field
- ✓ Writing clear, direct, and concise sentences
- ✓ Modeling academic integrity by correctly citing your sources
- ✓ Presenting your work to a wider audience, and not just your supervisor

You are contributing to the field of knowledge rather than repeating what has already been said.

Writing for graduate school is different from other contexts, because you are now part of a scholarly community. You have enough experience to add to the scholarly conversation. It is no longer a matter of comprehending or applying knowledge, but creating it.

REFLECTION

Think about your experiences during the first weeks of this semester. Take a moment to reflect on your learning experience in your undergraduate degree or last job. Consider aspects that you generally took for granted. Do you see similar practices in Graduate school? Do you see differences? Take time to talk to other students and share perspectives. UNDERGRADUATE PRACTICES:

GRADUATE PRACTICES:

Finding the Resources You Need for Help

In graduate school, the expectations are higher because it builds on the skills that you already have. There is an expectation that as a graduate student you will seek out support when you need it. You are not expected to "know" everything, but you are expected to seek out what you need to know. Professors assume that you either know or will learn how to find scholarly articles, to follow citation styles, and to write in the format of your discipline. Not knowing is not a personal failure. Think of it as the starting point to getting help.

- ✓ <u>Academic Development Specialists</u>: help create on-going strategies to resolve academic difficulties. http://www.ucalgary.ca/ssc/academic-support
- ✓ <u>Academic Success Clinic, through Counseling Services:</u> helps students with stress management and dealing with work-life balance. http://www.ucalgary.ca/counselling/academicsuccess#Clinic
- ✓ <u>Graduate Students Association</u>: offers an information guide to many of the common questions from international students, including government forms and health care. http://www.ucalgary.ca/gsa/services/international-students.html
- ✓ <u>International Student Centre</u>: organizes social events and language exchanges for international students. http://www.ucalgary.ca/uci/students
- Research Librarians (in your field): provide knowledge about how to access and search specific library sources. http://library.ucalgary.ca/contact-us/directory (search for subject)
- ✓ <u>Writing Support Services</u>: provides help with any aspect of the writing process. Students can book two 30 minute appointments a week, along with drop-in sessions and workshops. http://www.ucalgary.ca/ssc/writing-support

One way of understanding the difference between graduate school and your other experiences is to reflect on your position (or topic) in relation to your department and the larger field. Jot down a few notes on the chart below. What is your contribution likely to be? Who are the scholars that you are likely to work with? This thought process sets up the context to your ongoing contributions to the field. Field You

Where Did the Time Go?

Other challenges will impact your experience in graduate school. The time required to meet your program requirements may seem scarce. Suddenly, you may have new employment opportunities: a research assistantship, a teaching assistantship, or other employment. You may have increasing familial commitments. Trying to balance your school, work, and home life can be a challenge, particularly if you want to be the perfect student, employee, or spouse. You need to develop strong time management and gain access to resources earlier.

REFLECTION

Take a moment and reflect on what stops you from writing? These activities or feelings can range from the pragmatic (I don't have time) to the emotional or physical (I'm tired). After going through the blocks, take a moment to think about what motivates you to write.

WHAT STOPS YOU FROM WRITING?

WHAT MOTIVATES YOU TO WRITE?

Getting into the Daily Grind

Before thinking about how to write, it is important to get a sense of yourself as a unique individual with a personalized writing process. Since we don't all approach writing in the same way, we have different speed bumps that slow us down.

You may find that your motivations or blocks can be considered external or internal. External motivations would include deadlines, or your supervisor leaving on holiday. External blocks to writing could include phone calls, emergencies, or chatty office partners. Internal motivation comes

from you. Often it is the reason that you went into graduate school: your passion for the topic or desire to contribute to how this topic is understood. Internal blocks to writing often start with "can't" or "don't." Reflect on these blocks and motivators in the space below:

A Page a Day Keeps the Writer's Block Away

One of the important ways to improve your writing and cope with any challenges is to make writing part of your daily life. Like exercise and eating your vegetables, it's not so bad once you get used to it. Many of us think, clarify, and refocus our ideas by writing. Just write, don't worry about the voice of the editor (asking for perfection). Remember, this writing is for you.

Tracking Your Reading

Clark (2006) suggests that you complete the following log after reading an article. This log would include bibliographical information (author, title, and et cetera). While reading for your project, respond the following questions:

- What is the thesis of the article?
- What are the most interesting ideas presented?
- Why are they interesting?
- What information is missing from the article?
- What would you write if you wrote the article?
- ▶ How could this article be useful for your dissertation?¹

Tracking Your Project

Why not use your daily writing to reflect upon your larger project or task? Consider where you are in the project and where you would like to go.

- Are there primary results?
- Have you changed your method?
- Are their particular terms or ideas that you want to define for future work?
- Every once and awhile, tie your project back to the field. Has your contribution changed?

(I key factor to academic writing, particularly at the graduate level, is that it's never done. It will be continually changing over time as it is reviewed by your supervisor, committee, journal reviewers, and later by other scholars in the field. Don't try to make it perfect. Try to enjoy the processi

¹ Adapted from Clark, I. (2006). Writing the successful thesis and dissertation. Toronto, ON: Prentice Hall.



WRITING AT THE GRADUATE LEVEL: ACADEMIC INTEGRITY AND USING SOURCES EFFECTIVELY

The Role of Sources in Graduate Level Work

At the graduate level, sources are not selected and used only to support a particular point. Sources represent the scholarly conversation that you plan to join. Your selection of sources should include works that disagree with your argument as well as those that support it. Sources are often used to clarify your future project, at a theoretical, methodological, or subject level. Your aim is not to solely summarize sources, but to explain where you enter the conversation. What are the gaps in current research? What are you contributing? Are you bringing together two different sets of research that typically don't talk with each other? Consider these questions as you read through your sources.

Reading: How to Get Through All the Material

There is a lot of material to read through at the graduate level. You need to be strategic with your approach. You may have to change your approach to reading, so that you can ensure you understand the key information in a shorter amount of time.

Previews: More than Movie Trailers

Look at the following sections of a work before reading the whole paper to determine the relevance of the material before investing time in reading and printing the article. You can use a similar approach to looking at books, by focusing on the table of contents, the introductory chapter, the index, and the works cited section.

Title: Does it include some of the keywords associated with your topic?

Abstract: What are the key aspects or topics of the paper? Are they likely to be useful to you? If only one topic is useful, read only that section of the paper.

Topic Sentences: A well-organized article will allow you to scan through the author's main points, which are often located in the first sentence of every paragraph.

Introductions/ Conclusions: Most authors will repeat key information in these sections. These sections are where many authors will also include their contribution to the field. Look for their claims on significance to help determine if this article is relevant to your work.

Bibliography: Don't ignore this section. Do the articles they cite seem relevant to your topic? Have you read some of them already? Are they scholarly? You can judge an article based on the sources it uses.

TEST IT OUT

Consider the following abstract. What does the abstract tell you about the article? What approach would you take to the article after previewing this work?

"During the second half of 2008, the United States financial markets, and eventually all major world markets were devastated by the aftermath of unethical lending practices by major lending institutions. Aggressive lenders engaged in loans called "sub-prime mortgages." These mortgages were extremely high risk and most of them violated traditional underwriting standards for the industry. The problem was exacerbated by the packaging, and leveraging, of these loans by Wall Street financial companies. These companies leveraged these bad loans, and sold them to unsuspecting buyers as bundled investments in the secondary markets. When the overheated United States real estate market finally began a severe and protracted correction of fair market values due to these bad sub-prime loans made to questionable borrowers, not only did the real estate markets collapse but it resulted in a domino effect causing the collapse of major banks and a

¹ Adapted from: Lester Sr., J & Lester, Jr., J. (2005). Writing research papers: A complete guide. New York: Pearson Longman.

precipitous and protracted market drop in stock values, financial companies, insurers, and eventually the biggest financial crisis since the great depression. This paper will review the 2008 collapse, and evaluate the questionable practices among the various corporate and financial participants that caused a worldwide collapse of shareholder values. This paper will also explore and review the United States government's various attempts to solve this great crisis including what proper ethical and legal safeguards are being considered to prevent a repeat of this disaster in the future." ²

Annotation: Throw Away Your Highlighter

Annotating the text means that you are not just highlighting key points. Annotation requires you to be in an active dialogue with the work. You should write in the margins, and circle key points. The goal of writing an annotation is to create a set of notes for yourself in your own words.

- Draw on your prior knowledge and experience with the topic. These experiences could direct
 you to the most relevant sections and areas where you should be making annotations. To do
 this, you may need to clarify your aims by pre-writing. Try answering the following questions
 before reading a pile of articles:
 - What am I writing about? (Try to be as specific as possible; move away from a broad topic)
 - Are there key words or terms that I should look for in particular? (using the 'find' function in a .pdf may take you directly to the relevant parts)
- React and respond to the text based on your end goal. What do you hope these texts will add to your work? Focus on aspects that match that task, rather than reading for overall comprehension.
 - Your annotations should focus on identifying the following:
 - The writer's main purpose
 - Key themes, ideas or arguments (particularly those that could be applied to other projects, like your own)
 - Keywords, terms, and concepts (definitions will be helpful)
 - Areas where the authors position their work in reference to other works. What is the knowledge deficit they are responding to? What do they claim is important about their work?
 - Points that could be potential models for your own work. (These points may be particularly relevant if you are building a model or methodology for your project)

² Taken from: Lewis, V., Kay, K., Kelso, C., & Larson, J. (2010). Was the 2008 financial crisis caused by a lack of corporate ethics? *Global Journal of Business Research*, 4(2), 77-84.

• Rewrite relevant concepts or ideas in your own words on the side of the text. These practices should ensure that you understand the text and that you can easily recall the information.

TEST IT OUT

How would you annotate the following paragraph? What are the key ideas and concepts that you could use in your paper? Remember that you want to focus on the abstractions and not the details.

"Tobias Adrian, of the Federal Reserve Bank of New York, and Hyun Song Shin, a Professor of economics at Princeton University, posits that since the 1970s, debts have grown faster than assets during booms. This pro-cyclical leverage can feed on itself. If financial groups use the borrowed money to buy more of the sorts of securities they lodged as collateral, then the prices of those securities will go up. That, in turn, enables them to accrue even more debt to buy more securities. Most securities attract buyers when the price falls. But this is not necessarily so because financial intermediaries need to limit their leverage and in a falling market, they sell assets. That lowers the prices of securities, which puts further strain on balance sheets leading to further sales." ³

Reading for a Critical Intervention with the Literature

It is important to note that critical does not mean negative. Rather, being asked to be critical suggests that there is an evaluation being performed. When planning to evaluate a series of articles, you need to develop a set of criteria.

If you are examining the article's use of a theory, you may consider answering the following questions:

- What are the justifications given for using a particular theory?
- How has the article adapted the theory?
- Does the article change the goals of the theory, or misunderstand the theory?
- How does the theory help to understand the relationship or structure of the subject? If you are examining the article's method or model, you may consider answering the following questions:
 - What are the main methodologies used to study your topic?
 - What are the strengths and weakness in previously used methodologies?
 - How would these articles justify your approach?

If you are examining the article's contribution to knowledge on the topic, you may consider answering the following questions:

- What has been done and what still needs to be done?
- Does it set up the context for the topic?
- What is the rationalization for the topic and the way it is studied?
- How does this article handle issues of validity and ethics?

As you go through your literature, you should be able to develop a series of codes or topics that you can use to organize the information. By organizing your material into a particular abstract topic, you should be able to develop a sense of the literature as a landscape. By understanding the types of approaches to your topic, you will be helping situate yourself in the field.

³ Taken from: Lewis, V., Kay, K., Kelso, C., & Larson, J. (2010). Was the 2008 financial crisis caused by a lack of corporate ethics? *Global Journal of Business Research*, 4(2), 77-84.

Filtering Information

Are you afraid of **Plagiarism**? Do you associate it with theft, laziness, and deception? Some students assume that it can't happen to them because they use citations. Using citations does NOT mean you are safe from plagiarism. Most students don't intend to plagiarize, but inadvertently do it all the same.

Inadvertent plagiarism is often a combination of student fatigue and poor note-taking skills. For example, notes that are almost quotations of the original material are unmarked. When students go back to write their papers, they end up cutting and pasting from their notes, forgetting that their notes are not their own work. By focusing on good note-taking and paraphrasing practices, this kind of plagiarism can be avoided.

Paraphrasing requires the student to summarize a writer's work. It demands *analysis* and *synthesis*. Therefore, it is important to understand the different context of your written work and that of your research. General principles for engaging with sources vary depending on your purpose, but key to all approaches is to make a distinction between details and abstractions. You should present abstractions (ideas or concepts which can be applied to other topics) rather than statistics and details.

Paraphrasing Sources

Considering this definition of plagiarism, paraphrasing sources becomes important. You are expected to quote sparingly in your work at the graduate level; however, it is best to follow what is typical in your discipline.

RATHER THAN LOOKING AT THE MATERIAL THAT YOU WANT TO QUOTE, TRY FOLLOWING THESE STEPS FOR THE NEXT EXAMPLE.

- 1. Read the excerpt for its abstraction or gist. The gist captures the point or basis of the article, or a section of it. The gist is a pliable way to discuss the ideas of the article, in a way that is ready to be used in your own work. The gist of the article is based on the article's contribution to knowledge in the field.
- 2. Look for keywords or phrases. These may be "prestige abstractions," meaning that they are certain terms used by the larger scholarly community. Including "prestige abstractions" can create a stronger connection between your paraphrase and the original work. Make sure you understand any term or phrase that you use. If the terminology is commonly used, you may include it. If the term was unfamiliar to you before your research, you probably should provide a brief definition. If you are unsure, always quote it.
- 3. Do NOT look at the article when paraphrasing. It's too tempting to repeat words. Open a new window, or flip over the paper and write what you remember. If you do this throughout reading an article, you'll have a set of paraphrases before you sit down to write the assignment.
- 4. Frame it with the author's name and a verb (Smith argues). By having people in your sentence, you can avoid sounding like an omnipotent narrator.
- 5. Imagine it as part of a larger work. Your paraphrases should serve your purpose. Why are you including this information in your paper? Make sure it is explicit to your readers. Don't expect that they will figure it out because you put it in a particular spot.

When paraphrasing gets tough, the number of quotations goes up. A basic rule is for every line of quotation you include, you need to explain its importance to your paper. This explanation should be longer than your quotation. You should not toss in a quotation and move on, because your reader will get confused. You need to develop the ability to paraphrase sources quickly and effectively.

TRY IT OUT

"Distance-learning students rarely show up on any campus, so their identities can be easily falsified. Fraud rings target community colleges and other open-enrollment schools that offer low-priced, online programs. The fraud rings enroll "straw" students who provide their names, dates of birth and Social Security numbers to obtain federal financial aid. The ring leaders then take a share of the student loan money that schools disburse to students after tuition and other allowable costs are paid."⁴

What information do you think is most important? don't peek until you have tried it.	Why? Answers can be found in the endnotes, but

At the Sentence Level

One way to structure your paraphrase is to use reporting expressions. These phrases use a combination of the author's last name and a verb. For example, Smith comments that.....

Here are a few verbs to start you off⁵:

addresses, adds, admits, affirms, agrees/disagrees, analyzes, answers, argues, ascertains, asks, asserts, assesses, believes, claims, comments on, compares, concludes, concurs, considers, critiques, defines, delineates, demonstrates, describes, determines, discovers, emphasizes, evaluates, examines, explains, explores, finds, furnishes, illustrates, identifies, indicates, inquires, interprets, investigates, lists, makes a case that, measures, mentions, notes, observes, points out, presents, proposes, proves, questions, refers to, reminds, replies, reports, reminds us that, replies, reports, responds, reviews, says, shows, states, stresses, suggests, summarizes, traces, views, warns, writes.

⁴ Taken From: Fraud and online learning. (Oct 5, 2011) *The New York Times*. http://www.nytimes.com/2011/10/06/opinion/fraud-and-online-learning.html

⁵ Adapted from: Emily Carr University of Arts. (n.d.) *Reporting Expressions*. (October 13, 2011). http://blogs.eciad.ca/wc/all-posts/reporting-expressions/

You can also use some of the following introductory phrases to set up your paraphrases (but don't overuse them):

- In the words of X, \ldots
- According to *X*, . . .
- In X's view, . . .
- In discussing Y,
- By approaching Y, X

Booth, Colomb, and Williams, (2008) suggest that the following sentences can help to structure ideas when drawing on sources. Furthermore, these sentences can help set up your response to the text. ⁶

- o Despite/Regardless of/ Not withstanding claim X, Y (your approach) considers.....
- o Although/While/ Even though X (source's assertion), Y is also.....

Use modalities to limit the claims in the article, such as seem, appear, may, and could. Similarly, you could use weaker verbs, such as claims, proposes, and suggests.

TRY IT OUT

"Defense Minister Karl-Theodor zu Guttenberg, a charismatic Bavarian aristocrat who charmed the electorate and was widely seen as a future chancellor, announced his withdrawal from politics on Tuesday amid a mounting controversy over his doctoral thesis, which has been exposed as heavily plagiarized. But the baron's brazen defense—he claimed he had written his thesis in good faith, lifting hundreds of prose passages from other authors only by "mistake"—outraged middle-class university graduates, who dominate Germany's establishment and widely believe that less-privileged citizens wouldn't get away with such sins against scholarship."

Can you paraphrase it?"	
	Paraphrasing Checklist: □ Did you use different words than the original? □ Did you use a different sentence structure? □ Did you present the ideas in a different order?

ⁱ Possible paraphrases could include the following: "Because federal student aid provides for both tuition and living costs, criminal organizations create fraudulent aid applications by enrolling into on-line education programs."

Possible paraphrases could include the following: "Despite claiming ignorance to his plagiarism, the German defence minister's career in politics has ended."

⁶ For more examples see p. 147-149 of Booth, W., Colomb, G., & Williams, J. (2008). *The craft of research*. Chicago, IL: The University of Chicago Press.

⁷ Taken from: Walker, M., & McGroarty, P. (Mar. 2, 2011). German minster quits over scandal. *The Wall Street Journal*. http://online.wsj.com/article/SB10001424052748704506004576173970765020528.html



WRITING AT THE GRADUATE LEVEL: STRATEGIES FOR WRITING LITERATURE REVIEWS

What is the Purpose of a Literature Review?

We write a literature review to demonstrate our understanding of the field and to locate ourselves within it. Whether it is comprehensive, critical, or historical, it involves filtering out and organizing information. You need to understand what you are doing before a reader can understand it. If you are just summarizing the material you have read, you are not writing a literature review.

Undergraduate Level Literature Review ¹	Focuses on summarizing articles. Little of the field is presented. Limited justification for articles selected.
Graduate Level Literature Review	Requires analysis and synthesis of sources. The writer demonstrates a strong understanding of abstract ideas and can evaluate them. The writer justifies the inclusion and exclusion of material. The writer fully engages with sources and evaluates them with reference to the literature review's purpose.

Building the Field: A Novice Approach to Literature

At this point in your academic career, you may be very familiar with the literature in your field. You may already know the key authors or key projects. Even still, you may have this nagging feeling that you forgot something. There is an article out there that refutes your project, and everyone has read it but you. Others are starting this journey and may be actively looking for new material to develop their sense of the field.

One versus Many

One of the most effective ways to build a literature review is to do multiple searches. Avoid sitting down and downloading a hundred articles. Be strategic. See what has been published on your topic. Try to look at what has been published in the past year or two. Read one or two contemporary articles before looking at other articles. These will give you a sense of possible search terms. After reading about ten articles and looking through their bibliographies, you should be able to locate key articles in the field. These are the articles that are commonly referred to in most contemporary articles. Through tracking bibliographies, you should be able to figure out the key ideas and authors in the area you are studying.

¹ Hart, C. (1998). *Doing a literature review.* London, UK: Sage Publications.

Constructing the Field

Like an impressionist painting, the field is constructed by coordinating individual articles into a picture. Each source is a brushstroke contributing to the final image. The literature review is a purpose-driven document. It contributes to the field through the ways in which it selects, coordinates, and organizes the literature. Through these techniques, a literature review can support your project or present new insights into the field.

Selection - What Should You Include?

You need to decide if you are going to do a comprehensive or functional literature review. A comprehensive literature review requires a very specific topic, which allows for an engagement with all the work available. More often than not we are doing a functional literature review. A functional literature review is goal-oriented. It serves as part of a larger document. What is included is determined by its relationship to the larger work. As part of your thesis or dissertation, the sources that you include should support your topic, your approach/theory, your methodology, and possibly your hypothesis.

Scope: Regardless of your chosen approach, don't include everything that you have read. It may be tempting to include it all because you want to show how much work you did, but in fact, you are opening a Pandora's box of questions. The reader will assume that a source's inclusion is a signal of its importance to your project but will struggle to find any basis for that judgment. You must always be able to justify both your inclusions and your exclusions. Why did you leave this in? Why did you leave that out?

Justification: One way of justifying your selection of material is to look at the providence, objectivity, and value of each source. Do certain sources come from non-peer reviewed journals? Does your discipline value monographs over journal articles? Are some sources based on primary research and others on secondary research? By looking at the quality of research, you are able to determine the amount of space to give each source. Lesser sources receive little space.

Coordination of Sources – How Should You Group Your Sources?

One of the most challenging aspects of writing a literature review is to determine the relationships between sources. You need to understand how each source relates to those around it. The key value of your literature review is this analysis and synthesis of information.

One way to organize a literature review is to present your sources as part of a *conversation*. Sources that share a common theory or methodology can be considered to be in dialogue with each other. Sources that refer to a common set of references but differ in their understanding of them similarly communicate with each other. By organizing the literature as a conversation, you are able to discuss key divisions in the field. You can then develop your own position on these divisions through the ways in which you justify a particular side. You can also relate these sources to your own work in order to construct a new approach.

Some reviewers organize their sources by *key trends* within the field. These trends focus on either traditional areas of study or contemporary works. By taking a broader perspective, a literature review can document a shift from traditional approaches to contemporary uses. By focusing on trends within a certain topic, one is able to use particular sources as representatives of a larger body of work. You can discuss the best examples of particular models and approaches.

Organization – How To Structure Your Review for Readers

When considering how to organize your material for a literature review, you need to think about your reader. You should be thinking about ordering the information for a novice, not an expert.

You could consider the following in your organization:

Definitions: Sources will use similar words, but for different ends. A literature review is an opportunity to define key terms in your project. You have the opportunity to place your definition in relation to other works.

Length: The reader gauges the importance of a source, in part, by the space you give it. In your literature review, you want to consider the amount of space you give to each source. You want to meaningfully engage with key sources but also balance this level of engagement with a brief discussion of less important sources. You don't want to spark questions that you don't have space to answer.

Benefits and Drawbacks: Give credit where it is due. Be generous to your sources. Every work has both flaws and positive value. Ensure that you don't falsely discredit a source you've included. Otherwise, the reader may ask why, if the work is so problematic, you are discussing it.

Gaps and Concentrations: Because a literature review is a purpose-driven document, you can use it to highlight a gap in the current literature. You can also use it to develop a particular concentration within a larger topic. By positioning yourself within the field, you can locate the gap which your work will fill. You can also define the limits of your project by suggesting that you are only looking at a particular subsection of a theory or a methodology.

WHAT IS THEIR ORGANIZATIONAL TRICK?

All organizational strategies require the development of criteria and a sense of logical progression. Consider looking at the articles that you are reading for inspiration. Explain what criteria they used. What logical order did they use to present these ideas? Try it out! Quotation from: Lavella, E., & Bushrow, K. (2007). Writing approaches of graduate students. *Educational Psychology*, 27(6), 807-822. doi: 10.1080/01443410701366001

Given the higher expectations for graduate-level writing—expectations that include greater depth and breadth, genre competence and, often, publishability—mere reporting or "summarizing" of sources is insufficient. Graduate writers must often integrate disparate ideas, synthesize perspectives, and extend theory, all of which demand higher-level construction skills and perspective-taking, as well as greater concern for accuracy, voice, and audience. In addition, graduate writers are assigned a wider range of writing tasks, such as opinion papers, article critiques, journal articles, theses, and research grant applications (cf. Woodford, 1999). Finally, compared to the undergraduate years, writing outcomes at the graduate level often account for a much greater proportion of a student's evaluation.

Given the high standards to which graduate writing is held, it is surprising that few research studies have addressed the issue. Notable exceptions include Baxter Magolda (1998), who conducted a longitudinal study to explore the emergence of self-authorship in graduate writing, and Hernandez (1985), who explored specific problems in graduate-level research writing. Gupta (1995) addressed graduate writing using case studies focused on written introductions to research articles, and Hildebrand (1984) addressed writing in pre-professional graduate education. Others have considered graduate writing from the faculty vantage point (Casanave & Hubbard, 1992), and in terms of the availability of specific supportive coursework at that level (Golding & Mascaro, 1987).

From a cognitive-process perspective, Torrance et al. (1994) differentiated the writing strategies of social science graduate students using a self-report questionnaire. Cluster analysis was used to identify three distinct groups of students: planners, who planned extensively and then made few revisions; revisers, who developed content and structure through extensive revision; and mixed strategy writers, who both planned before starting to write and revised extensively as part of their writing process. Interestingly, planners reported higher productivity than both revisers and mixed strategy writers, and planners and revisers did not differ in how difficult they found writing to be, although planners found writing to be less difficult than mixed strategy writers.

Similarly, Biggs et al. (1999), employing the Inventory of Processes in College Composition, measured changes in writing approaches following a workshop intervention for graduate students writing dissertations in English as a second language in China. After the two-day workshop, students showed a significant increase in elaboration, and decreases in procedural and spontaneous impulsive approaches. The same students reported liking the writing model because it helped them think about their writing and how they might improve their future approach to it. They also reported that they valued didactic advice on structuring their dissertations, writing abstracts, reading for meaning, taking notes, and summarizing.

Torrance et al. (1994) found that students preferred "product-oriented" instruction. While the Inventory of Processes in College Composition proved useful in addressing graduate writing needs in an instructional setting, it is important to fully validate the inventory for use with a graduate population. In line with psychometric investigations of the writing strategies of college students (Lavelle, 1993; Lavelle & Guarino, 2003), and in consideration of the research conducted with graduate students (Torrance et al., 1994), the goal of this study is to develop a writing-process model based on graduate student beliefs and strategies. An Inventory of Processes in Graduate Writing (IPGW) is developed to elucidate the graduate-level writing process by linking students' beliefs about writing to the strategies that they use at that level. The goal is to provide for more individualized and effective support for students engaged in writing as a critical learning and evaluative process.

Do This or Don't Do That

Do have a focused and consistently purposeful document.

Don't get blurry and foggy at points where you are unclear about the literature or how it relates to your project. Your confusion should not be apparent to the reader.

Do explicitly tell the reader the connection between your project and the literature. Do tell the reader how articles relate to each other.

Don't believe that juxtaposition creates ties between sources. Don't be implicit in the connections you make. The subtlety may be lost on others.

Do be critical about the works you are presenting. This approach tells the reader that you are aware of faults and features.

Don't be overly critical. Don't criticize an article without presenting its benefits. Remember that we are still apprentices in our fields. We should not unduly criticize previous works without remembering their value.

Do tell the reader the purpose of the literature review at the beginning.

Don't write a mystery novel. No surprises at the end.