

Enhancing the Quality of Student Papers

Patricia M. Shields
MPA Director
Department of Political Science
Texas State University
San Marcos, TX 78666

ps07@txstate.edu

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Introduction

This paper describes a new method for writing formal research papers. The organizing tool has been applied successfully for 15 years. The technique marks success in publications, award-winning student papers, graduation rates, and dollars. This method is particularly well suited for graduate students doing capstone projects or writing papers of 20 or more pages. Papers of this scale test a student's memory and organizational skills.

This method (also known as the *Step* notebook)¹ transforms writing a paper into managing a project (Shields, 2004). Project management skills such as organizing time, materials and ideas are stressed and reinforced. The *Step* notebook is a research tool that organizes the early stages of the research process. The power of the technique also comes from its grounding in Pragmatism as a philosophy of inquiry. It uses a philosophy of science and educational principles developed by John Dewey and Charles Sanders Peirce (Shields, 199?). The links to Dewey and Peirce are made at the end of the paper.

A Little History: Defining the Problem

The *Step* notebook began as a tool to keep me (new Assistant Professor) organized as I prepared conference papers and journal articles. When I began to see that my success in publication was tied to this tool, I shared the method with colleagues who

¹ To obtain the Step by Step notebook see <http://www.newforums.com/>.

also found it useful. The application of the “notebook method” to student papers began in response to a problem with the quality of capstone papers written by graduate students in public administration. At the end of the program, Texas State University Master of Public Administration students are required to complete an Applied Research Project (ARP). The ARPs usually contain five to seven chapters and are always empirical. In these papers, students address an existing public administration problem, review the scholarly literature as well as collect and analyze data.

In 1988, a NASPAA site visit team identified several problems with the 50 to 100 page, required capstone project. The team noted that the quality of the ARPs was mixed because the literature review chapters were unfocused and seldom analytical. Conceptual frameworks of any kind were missing. Data analysis sections were poorly written and disorganized. Perhaps most importantly, the ARP was an obstacle to graduation because, on average, students took two to three semesters to complete the three-credit requirement.

Both the site visit team and the faculty recognized the poor quality of the literature review chapters as a critical weakness. Without adequate knowledge of the topic/literature, students were unable to craft a feasible/useful research question. In addition, the analytical element was often missing. After reading one particularly bad paper, a faculty member commented, “It seemed like the student went to the library and got the relevant literature. Then, he threw the material down the stairs. Starting at the top of the stairs, the scattered articles were summarized one by one. The literature review chapter was completed at the bottom of the stairs.” The poorly focused literature reviews also made it difficult for the student to develop an acceptable research question.

A two-course sequence was initiated to address the ARP problem². The first course (research methods) gets the student ready to write the ARP. Among other assignments, the students are required to write a first draft of the ARP Literature Review chapter and develop a research prospectus. I was given responsibility for the new course. With the encouragement of colleagues, I began to require the notebook I used for my own scholarship. Students have enthusiastically embraced the new method. Since most worked full time, they appreciated the organization and time management aspects of the approach. Subsequently, student papers began winning regional and national awards. Most winners attribute much of their success to the organization provided by the notebook. (See <http://ecommons.txstate.edu/arp/> for a list of selected applied research projects since 1993. Winning papers are identified on the web site.) After supervising over 270 ARPs, I have always found that the best papers supported by a carefully constructed notebook.

In my life as a scholar, I apply the philosophy of pragmatism to Public Administration. Slowly, I began to realize that Pragmatism provided a philosophical foundation for the notebook (the notebook became a tool of inquiry). As I consciously began to apply the ideas of Peirce and Dewey to assignments and class discussion the literature reviews and the ARPs improved. Further, the students began to struggle with higher order issues. For years students encouraged me to share the notebook method with a wider audience. The *Step by Step* notebook that follows explains the process. In 2001, I

² See Shields, 2003 for a complete discussion of the two-course sequence. The syllabus for both courses is also available on line. The first course, Political Science 5335 Problems in Research Methodology is at <http://uweb.txstate.edu/~ps07/sy35fa99.htm>. The second class, Political Science 5398 Applied Research Project is at <http://uweb.txstate.edu/~ps07/sy97fa99.htm>.

took their advice and produced a binder with tabs and a detailed explanation of the process. Students liked the ready-to-go binder that explained the process. We are now introducing the *Step* process in earlier classes. We did this because, a common theme emerged from student exit interviews – introduce the notebook in earlier classes. It is an invaluable tool.³

Essential Elements of the *Step* Process

The *Step* Notebook Method manages elements of the paper writing process. There are three overall steps to the process. First, a three-ring-binder is obtained. Second, relevant materials, particularly notes on articles and books, are organized in the binder. Third, an outline that integrates references from the notes is prepared.

One: Three Ring Binder

Students often work on their paper in different places (library, home office, kitchen table, parents home, TA office, hotels while traveling) and different times. They also have to keep track of a variety of information (names of articles to get, people to contact, books to read, notes to take, outlining, first draft, editing, paper deadlines, computer disks, web addresses). As a basic level, the notebook keeps all this “stuff” in one place – in a portable, three ring binder with flaps on the side. When all the necessary “stuff” is in one place, it is relatively easy to put the project aside for a week or several months and then pick it up again when time permits. A well-organized notebook minimizes start-up (again) time. The well organized notes and sources also make editing and rewriting easier, faster, and more efficient because the information is easy to find.

³ The notebook is published by New Forums press and had been adopted throughout the

Two: Organizing the Binder

Much of the remaining discussion involves how to organize the binder. It is important to note that the organization is suggestive. The notebook is a tool of inquiry. The product (or final paper) of the inquiry is the point. The notebook is an instrument that can be modified to fit each project and scholar's idiosyncrasies, strengths and weaknesses. The organization below works for countless graduate students and me. It is also possible to apply the principles in an electronic or virtual setting. The binder is organized to emphasize the activities essential to a sound scholarly paper, 1) reading; 2) note taking; and 3) outlining. The binder has nine tabs. They are

1. Things-to-do
2. Calendar
3. To Find
4. Useful Information
5. Bibliography
6. Notes
7. Outline
8. Drafts
9. Sources

Time Management: Things-to-do list

In the first part of the *Step* notebook a things-to-do list is developed. As students develop their things-to-do list they are *planning* the necessary steps to complete the

country (Shields, 2004).

paper. The things-to-do list dissects the project into smaller manageable blocks of time and tasks. Possible tasks on the list include locating titles of books or articles, doing a web search, finding the articles in the library or the web. *Most importantly, the list keeps the scholar focused on the critical reading and note taking activities.*

The goal is to have at least eight hours of work broken into 15 to 60 minute chunks listed in the things-to-do list. The ongoing things-to-do-list should be added to as more references are found. The list helps students stay focused and gives them direction after an interruption.

Feedback from students about the best time to begin the things-to-do list varies. Some students start the things-to-do list at the start of the process. Others maintain that the list really helps after some of the materials have been collected. It gives order and helps prioritize the materials that are beginning to get out of hand. Early in the process, scholars spend time collecting the articles, books and documents they plan to read. After several references (3-15) are identified and collected the materials should be reviewed and sorted for their relative importance. Students often use post-it-notes to indicate whether the reference (chapter in a book, journal article etc.) should be read carefully, skimmed or discarded. The post-it-note directions are then entered as a *read* or *skim* item on the things-to-do list.

The things-to-do list is a project-planning tool because it forces the student to specify the activities/tasks that must be accomplished in the near future. The student's time is directed by the activities indicated on the list. Both large and small blocks of time can be directed toward the project. For example, twenty minutes at lunch can be used to read a short journal article.

An organized notebook and things-to-do list circumvent key pitfalls of procrastination. Even the most well-intentioned scholar may have trouble getting back to work on a paper after an interruption. They may find themselves unable to locate the research material, make sense of it or know what to do next. Procrastination is a common response. Their inner voice may be saying, “I’m not in the mood,” or “I don’t have the block of time I need.”

A well-organized notebook includes the research material and a set of tasks that take short periods-of-time (reading an article). Student learners have easy access to the materials and trust themselves and do a task on the list that gets them started (Boice, 1990). The road block of procrastination is circumvented.

The heart of an effective literature review is the background reading and careful note taking over the relevant literature. Most items on the things-to-do list should be “reading” and “note taking” of particular articles/chapters. Ninety percent of my things-to-do list headings begin with either “read” or “take notes.” I number the items on the things-to-do list and when the task is accomplished, cross out and date the item. This practice produces a sense of accomplishment and results in a record or work log.

At its most elemental, a complete research paper is composed of paragraphs imbedded with references from the literature. Although style manuals specify slightly different forms, the internal references usually contain the last name of the author e.g., (last name, year, page). The *Step* method reinforces the important connections between an author’s name and the ideas or findings of the reference by using the author’s name in the things-to-do list.

The things-to-do list section is also important because it *emphasizes scholarly reading*. A scholarly paper (particularly a literature review) rests on the author's ability to find, read and understand the scholarly literature. An effective things-to-do list reinforces the importance of reading. It also keeps a record of "what is read" and "what needs to be read."

Calendar – tab

The calendar section connects to events in the scholar's larger life and should include important paper deadlines. This section is optional. Students with personal calendars may find it more useful to keep track of paper deadlines in the same place they keep track of medical appointments and invitations to parties.

To Find - tab

The "to find" section is perhaps most useful in the middle stages of reading and taking notes. During this phase, the investigation begins to narrow and the value of each reference becomes clearer. Often, the most useful references are the sources in another article. It is easy to forget or lose a valuable reference when the scholar is in the midst of reading or taking notes. Jotting down the "found" reference in the "To Find" section ensures that the treasured reference will not be lost.

Useful Information

Another section of the notebook can be devoted to miscellaneous, useful information. This may include important phone numbers, email or correspondence. I keep

all conference and panel information in this section. If students are writing a thesis or capstone project, notes from meetings with their instructor would go here.⁴

I encourage students to think about their outline well in advance (while doing the reading and note taking). They can keep potential theses statements or research questions, possible major subheadings in the outline, bits of draft outlines. Some keep a journal of personal insights that make connection across the references or how these references connect to their paper.

Bibliography - tab

During the process of locating and reading sources, it is important to keep track of the references. Sometimes busy scholars feel like working on their paper but do not have the mental energy to read a professional journal article. “Adding five references to the bibliography” can be added to the things-to-do list and is an excellent way to make progress on a paper even when tired. With this system, the bibliography is complete before the writing phase begins.

Notes - tab

The notes on the articles and book chapters are kept in a separate section. *This is the most important section of the notebook.* The material in this section literally gets transformed into the eventual paper. If this section is light, the paper usually lacks depth

⁴ The tabs in the notebook are suggestive. Students are always free to add additional tabs. For example, if students are interviewing officials for their paper, the interview questions, contact information, transcripts could all be kept in a separate section of the notebook. If students are involved in a group project, the group leader may want to keep a record of contact information, work assignments, meetings and any email exchanges in the notebook.

and coherence. Where does the material for a 20-plus-page paper come from? –The notes⁵.

Each page of notes should include the last name of the author, the year the article was written and the page number. The article page numbers should be easy to find. The author(s) name(s) and article date should be placed at the top of the page. Use quotation marks for material copied word for word. Finally, *sort the notes alphabetically by the last name of the author(s)*. The notes can be written by hand or taken on the computer, Many students like the intimacy with the written word that hand written notes provide.

As the literature search progresses, the character of the notes often changes. For example, if the topic is very new, notes are often detailed. The less an individual knows about a subject the more notes they need to take. Early in the process the research question is seldom formed. The extensive details noted enable a search for focus. As the note taking process continues, it is easier to decipher what is relevant for the paper at hand. In addition, as a student is further along in the process, the student may begin to make connections or have useful insights. When this happens, it is helpful to distinguish the journal article information from the student/scholar thoughts. I use a different color pen or a different font within the notes themselves to indicate personal insights or connections to the literature. Some students create a new section labeled “journal” where they log this kind of information.

⁵ This is particularly true if the student is writing a paper on a topic they are relatively unfamiliar with and where they are expected to master (synthesize and analyze) the scholarly literature on the subject. It is just impossible to have a skimpy notes section and an articulate, sophisticated, insightful, analytic summary of a body of scholarly literature. Check out the literature reviews of the Texas State national award winners. All of them meet the articulate, sophisticated, insightful, and analytic test. See the award winner web

Notes are stressed because they help reading comprehension and give students an experiential reference for professional writing. A student's writing ability is limited by their reading comprehension. No one can write clearly about something they do not understand. By definition, students begin research papers because they want to learn more about a topic that interests them. The scholarly reading *should* be somewhat over their head. How else are they going to learn? Note taking strengthens reading comprehension, builds vocabulary and in so doing enhances writing ability. A professor that teaches large survey classes has observed that the students with the best notes usually get the best grades. This also applies to research papers.

Outline –tab

Outlining is a critical element of professional writing. Ideas are organized in the outline. The key activity that connects the notebook method to the outline is the *integration of the notes into the outline*. Students usually find this task the most challenging part of the *Step* process. It is here that the flesh of the notes is connected to the bones of the outline. The outline is the architecture of the paper. If the design is flawed, the paper will be flawed – incoherent. We discuss the outlining process in class and the *Step* notebook provides a simple step by step method of creating an outline by sorting slips of paper that contain the substance of the information they want to convey in the paper.

Once the outline is finished, the student should read through all the notes that are sorted alphabetically by last name of the author. When a reference is useful, it should be

site <http://uweb.txstate.edu/~ps07/awards.htm> . Each of these students had a detailed,

inserted (author, year, page) into the outline. This ensures that all of the literature is reviewed before the writing begins. It is best to leave lots of space to insert the references. Also, the process should be flexible. Often while reviewing the notes, it becomes obvious that the outline is incomplete. If so, the outline should be revised. The outline like the notebook is a tool of inquiry and should be modified as needed.

I have an image that resonates with students when I discuss the *Step* method. A student is in front of a computer with lots of books and articles all over the place. Piles are everywhere – on the floor, on the table. Books are on top of books that are on top of the articles. The frantic student is muttering, “Where is that reference anyway?” The systematic integration of the literature into the outline reduces the likelihood that this scene will occur (at least as often and with as much panic). In addition, the integration of the articles into the outline can be done in relatively small bits of time.

When all the notes are integrated into the outline the student scholar is ready to write the paper. The actual writing process often goes smoothly because the paper is organized and the necessary sources located.

Drafts –tab

The *Step* method facilitates the first draft. I often use the analogy of sculpting to describe the craft of developing drafts. The writer takes raw material and brings out the meaning and purpose in the prose. Unlike a sculptor, the writer must invent the clay and then through editing refine the communication. Often the most challenging part of writing is the blank computer screen. This is where the author creates the clay. The integrated outline provides the material for the clay and most importantly the shape of the clay. The

careful, lengthy notes section in their notebook.

integrated outline also allows the busy scholar to write the first draft (making the clay) in relatively small bits of time. The integrated outline will contain all the reference notes that correspond to section II B of the outline. With the sections of the literature relevant to the IIB topic identified, the student should read the notes, reflect on the purpose of the paragraph or section and then dig in –start writing. The result is the clay that must be shaped through editing.

Once the first draft is complete (the clay in the computer), critical reading and editing follow. The sculptor takes a piece of clay in the shape of a horse and through careful chiseling draws out the image of a running horse. Likewise, the author takes the first draft and edits to draw out the meaning and coherence in the theory, arguments and findings of the literature. I find the editing stage the most rewarding and creative part of scholarly writing.

If done properly, the *Step* method allows time for careful, creative editing. Note that editing is both a reading and a writing activity. The careful editor reads for meaning and coherence as much as for grammar. The process embedded in the *Step* notebook provides sufficient time for reflective thought during the revision stage.

Sources –tab

At the end of the binder there is a tab for sources. I usually copy journal articles and file them alphabetically by the last name of the author in this section. If the number of sources gets too large (the notebook cannot be carried easily), I suggest keeping the sources in a small filing cabinet. File by author's last name. The point is to file the references in a way that is easy to locate. In big projects like dissertations, one might file

the articles (and notes) by chapter. In any case, a well-highlighted article is no substitute for careful notes.

Summary/Review

In the introduction of the paper, I described the Step process as a tool that managed the student’s time, materials, and ideas. Table 1 shows which tabs connect to which organizational problem. From a scholarly perspective, the organization of ideas is the most challenging and important function of the notebook. If the *Step* method did not have the capacity to organize ideas, it would be akin to a sixth grade assignment.

Table 1
Linking Tabs to Organizing Functions

Time	Materials	Ideas
Things-to-do list Calendar	The binder and all of the tabs	Things-to-do list Notes Integrated Outline THE KEY TABS

Pragmatism as Philosophy of Inquiry

One of my research interests is the application of the philosophy of pragmatism to the field of public administration. When I began studying pragmatism, I was unaware of the link between my teaching and scholarship. Gradually, I recognized the applicability of my formal scholarship to the student papers required in my research methods course. When I consciously began using the ideas of pragmatism, the quality of the papers improved as well as the ease of their supervision. The next section applies the logic of pragmatism to the *Step* process.

What is Pragmatism?

“Pragmatism is the philosophy of common sense. It uses purposeful human inquiry as a focal point. Inquiry is viewed as a continuing process that acknowledges the qualitative nature of human experience as problematic situations emerge and are recognized. Recognition involves the doubt associated with questioning existing belief systems. Doubt is resolved through critical reasoning and ultimately tested in action. It is the philosophy of common sense because actions are assessed in light of practical consequences. Finally, inquiry is not necessarily limited to individual effort, rather it often incorporates a ‘community of inquirers’” (Shields, 1998, 197). The applicability of pragmatism to the inquiry process associated with writing formal research paper flows from the above definition.

Students are introduced to the *Step* process through a discussion of the transformations they will experience engaged in the inquiry process associated with writing a research paper. In particular, the “community of inquiry” and the issues associated with the questioning of existing belief systems are stressed.

John Dewey (1938) defines inquiry as “*the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole*” (p.104). The remainder of this paper explores how the *Step* method enables the “transformations” of inquiry associated with writing a “unified whole” literature review.

Pragmatic Principles Found in the *Step* Method

For Charles Sanders Peirce the scientific method represents the opposite of individualism. “What distinguishes it from all other methods of inquiry is its cooperative or public character” (Buchler, 1955: x). The classic example of the three blind men trying to describe an elephant is illustrative. Each describes an elephant from his own limited perspective (small tail, big ears, etc.). The story’s moral is that we are all trapped inside our limited selves, and can not know the truth. If, however, we allow the three blind men to talk to each other, to compare perspectives, to argue, to test new hypotheses, to behave like a community of scientific investigators, it is possible to imagine that the blind men will eventually overcome their limited perspectives. They will come to a truer sense of the elephant. They are what Peirce refers to as the “community of inquiry.”

Peirce maintained that over a long time horizon (hundreds of years) it was possible to discover scientific truth (nature’s eternal laws). At any point in time, however, results using the scientific method, are provisional. Understanding (a better sense of the elephant) proceeds over time. Ideally, the dialogue of the community of inquiry (for science, social science, applied sciences and humanities) is recorded in the scholarly literature.

When graduate students begin to do a large research paper they are in essence dropping in on the conversation of a community of inquiry. Their problem is to make sense of the conversation and ultimately to contribute to the dialogue. As students identify and digest the literature they are often confronted by new ideas that challenge their belief systems.

The new ideas found in the literature evoke real doubt and thus disequilibrium. The notebook is a tool that enables the movement toward the unified, more complex equilibrium (it came together in the end). It does this through intensifying the student's doubt stage, clarifying the problematic situation and enabling the transformation essential to pragmatic inquiry.

Charles Sanders Peirce (1958a) emphasized that inquiry begins with doubt. Inquiry is a movement from something already known to "something else, which we do not know." He describes a cycle that begins with belief then moves to doubt and returns to belief.

"Belief is not a momentary mode of consciousness; it is a habit of mind essentially enduring for some time, mostly unconscious; and like other habits, it is (until it meets with some surprise that begins its dissolution) perfectly self-satisfied" (p. 95). Thus, authentic inquiry cannot occur when habits of mind are 'fixated' in belief a state of mind where people are "impervious to fresh evidence" (Weiner, 1958, p. 91). Doubt is the "uneasy and dissatisfied state from which we struggle to free ourselves and pass onto the state of belief" (Peirce, 1958a, p.99). Doubt is associated with Dewey's indeterminate situation. Dewey uses terms like "lost our heads," "panic," "confused," "disturbed," and "troubled" to describe the "personal side" of the doubt stage (Dewey, 1938, p. 105). For Peirce (1958a) doubt must be "real and living" for inquiry to happen (p.101). "Genuine doubt always has an external origin usually for surprise" (Peirce, 1958e, p. 207). Peirce also maintains that people who employ the pragmatic philosophy of science invent "a plan for attaining doubt, and put it into practice although this may

involve a solid month of hard work.” (Peirce, 1958e, p. 214). The activities associated with *making* the notebook are part of Peirce’s “plan for attaining doubt.”

My experience is that the doubt stage occurs most frequently as the student takes notes. The doubt stage is a good thing (as long as the anxiety is manageable). I can often predict which students will produce award winning papers at this stage. These graduate students read widely, deeply and take extensive notes.

One might note that Dewey and Peirce’s emphasis on the role of doubt is unusual in social science scholarship. Social scientists are rewarded when they find a widely applicable explanatory theory. Successful theories become beliefs and (using Kuhn’s (1962) insight) paradigms. Paradigms are applied with certainty and confidence. Using “belief” as a frame of reference, one would expect the doubt stage to be viewed as a stumbling block to truth and/or a trivial, occasional, element of inquiry. The norm of certainty (belief) is reinforced in the traditional lecture classroom. In class, students are usually introduced to a topic at the confident “belief” state. The doubt stage that preceded the material in the textbook is unacknowledged. When students begin a paper, they may interpret the doubt stage as a signal that their efforts are misplaced. Rather, doubt should be embraced as a sign that the process of reflective inquiry has begun.

Clearly, the reading and writing components of the *Step* method enabled doubt. The real linchpin of doubt is the reflective thought that enables synthesis and connections between sources in the literature.

Students stimulate ‘real,’ ‘felt’ doubt by applying the readings to their experiences. My hope is that the juxtaposition of experience and the literature will stimulate critical thinking or reflective thought. In *How We Think*, John Dewey (1910) examined the role

of thought in inquiry. According to Dewey (1910) “to think means ... to bridge a gap in experience, to bind together facts or deeds otherwise isolated” (p. 80).

“The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution” (Dewey, 1910, p. 74). Peirce (1958b) refers to this process as reflective thought. A reflective person is naturally open to consider facts that don’t correspond to their belief system.

Another way of describing suspended judgment is in Peirce’s (1958d) words the “experimenter or laboratory mind” (p. 180). The cardinal rule of experimentation is that “we must accept the outcome whether or not it is to our liking.” When we submit “to judgment of experiment we correct the presumption of the demand that the world conform to our expectations” (Kaplan, 1964, p. 145).

Dewey (1938) noted that the indeterminate situation itself has rhythms or stages. There is first the search for the problematic situation. This is really the point of the *Step* method.

“The indeterminate situation becomes problematic in the very process of being subjected to inquiry. ... To see that a situation requires inquiry in the initial step of inquiry” (p. 107). Reflective thought that connects to experience should enable an individual to focus and *see* that a “situation requires inquiry.”

Reflective thought combines what Dewey (1910) describes as concrete and abstract thinking.

“When thinking is used as a means to some end, good or value beyond itself, it is concrete; when it is employed simply as a means to more thinking, it is abstract” (p. 138).

In a discussion that mirrors the theory-practice debate found in a variety of academic disciplines, Dewey (1910) maintained that the “truly practical man” uses both types of thinking. It is important to give the mind “free play about a subject matter without asking to closely ...for the advantage to be gained. If concrete thinking is used exclusively the horizon becomes too narrow and in the long run is self defeating. “It does not pay to tether one’s thoughts to the post of use with too short a rope” (p. 139). The purpose of the notebook method is to lengthen the tether and in so doing encourage the student to suspend their judgment and “escape the limits of the routine and custom” (p. 139). Reflective thought is a critical ingredient for ‘felt’ or ‘real’ doubt to emerge. When students suspend judgment, their preconceived beliefs seldom fit perfectly with the literature. In class, I begin to observe manifestations of the ‘real,’ ‘felt’ doubt among the students after about a month. They express their confusion and panic in the first 15 minutes of each class. To the surprise of the class, I am pleased about the general state of confusion because I know that real inquiry is progressing. We discuss the role of doubt in inquiry vis-à-vis Peirce and Dewey. I ask them to separate the confusion from anxiety. Building the *Step* notebook also helps the student to cope with the anxiety because they see and feel it grow. They are able to mark progress tangibly. Finally, I stress it should all come together in the end if they give the notebook a good faith trail.

The notebook method is a tool of reflection/inquiry. Reflection involves going outside the immediate situation to find a lever for understanding.

“There is a search for a tool with which to operate on the unsettled situation. The tool becomes part of the active production skill brought to bear on the situation. The purpose

of the tool is to reorganize the experience in some way that will overcome its disparity, its incompatibility, or its inconsistency” (Hickman, 1990, p. 21).

This is the purpose of the *Step Method*. Hickman (1990) noted that philosophy is usually concerned with human doing and has paid little attention to human making. Dewey, on the other hand, always sought the “connections and continuities between humble and quotidian technological practices and their refined, enriched manifestations” (p.8).

Conclusion

The point of the above discussion is to highlight first-stage-of-inquiry issues. The *Step* notebook method is one of many possible tools to facilitate inquiry during the early stages. This method helps the students to focus the topic as well as to find and refine the research question/problem. How a particular scholar copes or recognizes these first stage issues probably depends on host of factors such as the maturity of the scholar, learning style and personality type. I use the *Step* process for every article I write. My sense is busy TAs and worried assistant professors also would benefit from using this tool.

References

- Addams, J. (1930). *Twenty years at Hull House*. New York: McMillan.
- Buchler, J. (1995). “Introduction,” in *Philosophical Writings of Peirce*, pp. ix-xvi. Edited by Justus Buchler. New York: Dover. Publications.
- Boice, R. (1990). *Professors as Writers: A self-help guide to productive writing*, Stillwater, OK: New Forums Press, Inc.
- Dewey, J. (1910). *How we think*. New York: D.C. Heath & Co.
- Dewey, J. (1938). *Logic: The theory of Inquiry*. New York: Holt, Rinehart and Winston.
- Flower, E. & Murphy, M.G. (1977). *A history of philosophy in America*. New York: Capricorn Books.

- Hickman, L. (1990). *John Dewey's pragmatic technology*. Bloomington, IN: Indiana University Press.
- James, W. (1907). *Pragmatism: A new name for some old ways of thinking*. Cambridge, MA: The Riverside Press.
- Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioral science*. Scranton, PA: Chandler Publishing Co.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago, PA The University of Chicago Press.
- Peirce, C.S. (1958a). The fixation of belief. In P. Weiner (ed.) *Charles Sanders Peirce: Selected writings* (pp. 91-112). New York: Dover Publication.
- Peirce, C.S. (1958b) How to make our ideas clear. In P. Weiner (ed.) *Charles Sanders Peirce: Selected writings*. (pp. 113-136). New York: Dover Publications.
- Peirce, C.S. (1958c). The architecture of theories. In P. Weiner (ed.) *Charles Sanders Peirce: Selected writings* (pp.142-159). New York: Dover Publications.
- Peirce, C.S. (1958d). What pragmatism is. In P. Weiner (ed.) *Charles Sanders Peirce: Selected writings* (pp. 180-202). New York: Dover Publications.
- Peirce, C.S. (1958e). Issues in pragmatism." In P. Weiner (ed.) *Charles Sanders Peirce: Selected writings* (pp. 203-222). New York: Dover Publications.
- Shields, P. M. (2004). *Step by Step: Building a Research Project*. Stillwater, OK: New Forums Press. <http://www.newforums.com/>
- Shields, P.M. (2003). Pragmatic teaching philosophy. *Journal of Public Affairs Educators* 9, 7-12.
- Shields, P.M. (1996). Pragmatism: Public administration's policy imprint. *Administration and Society* 28, 390-411.
- Shields, P.M. (1998). "Pragmatism as Philosophy of Science: A Tool for Public Administration," pp. 195-225, in J. White (ed.) *Research in public administration*. JAI Press.
- Weiner, P. (ed.)(1958). *Charles Sanders Peirce: Selected writings*. New York: Dover Publications.

Patricia M. Shields is Professor of Political Science and Director of the Master of Public Administration Program at Texas State University. She is the editor of *Armed Forces & Society* and winner of the 2002 National Association of Schools of Public Affairs and Administration Excellence in Teaching Award.