

1-1-1982

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Recommended Citation

Olson, Gary A. and Alton, John (1982) "Heuristics: Out of the Pulpit and into the Writing Center," *Writing Center Journal*: Vol. 2 : Iss. 1, Article 6.

DOI: <https://doi.org/10.7771/2832-9414.1057>

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Heuristics: Out of the Pulpit and into the Writing Center

Gary A. Olson and John Alton

The classic rhetoricians divided the art of rhetoric into at least three main stages: *invention*, *disposition*, and *elocution* (also *memory and delivery* for oratory). Today, we continue to recognize this tripartite division of the composing process but prefer to substitute a more modern taxonomy for the Latin terms: *pre-writing*, *arrangement*, and *style*. The advancements in rhetorical theory in the past decade and a half are impressive; however, despite this growing insight into the writing process, many of us who teach composition still seem to disregard observations made centuries ago by Aristotle, Cicero, and Quintilian. We are speaking specifically of the inattention paid to the first stage of the tripartite writing process: invention. It is a fad currently to attend conferences in order to discuss heuristics and the invention process, but it seems that most of us fail to *do* anything about pre-writing in the classroom or writing center. Although we were encouraged by Tom Nash's description of invention-oriented methods used in several writing centers ("Hamlet, Polonius and the Writing Center," *Writing Center Journal*, vol. I, No. 1, 80), we sensed that these experiments with pre-writing were probably the exception not the rule.

It seemed to us that a student's main problem is often the inability to generate ideas for a paper, yet many writing center tutors seemed ill-equipped to remedy this problem, despite the proliferation of modern heuristics and theoretical discussions of invention. In order to obtain a more accurate estimation of how many directors actually use heuristics in their centers, we devised a questionnaire and distributed a copy to each member of the Southeastern Writing Center Association. (We wish to thank Stephen North for his help in conceiving this project.) Twenty directors replied. The questionnaire reveals that 60% of the respondents use no pre-writing devices. Only 35% of the respondents

use informal pre-writing techniques, such as brainstorming or free-writing. A mere 5% claim to use a formal heuristic, such as tagmemics, Burke's pentad, or Aristotelian topics. In addition, not one respondent has discontinued the use of a heuristic he formally used, and only one director who currently does not use a heuristic plans to use one in the future.

These data confirmed our original impression that despite the burgeoning theoretical interest in invention, few writing center directors (or their tutors) actually use invention techniques in the writing center, and they rarely employ a formal heuristic. Further, 72% of those who use some type of pre-writing technique, use it only with certain students, not with every student entering the center. We feel that this statistic is encouraging because it illustrates a sense of focus; however, we were disappointed to discover that not one respondent has a systematic method for identifying which students should work with pre-writing. Instead, they state unanimously that *intuition* is the primary method of targeting students for work with invention. For example, in answer to the question "How do you identify students needing work with invention," respondents replied, "Students who seem to have no direction," and "Students usually identify themselves by announcing they are confused or don't know how to begin." In other words, not one center has pre-determined criteria which help tutors determine which students need assistance with the invention process.

With this information in mind, we decided to study the use of a heuristic at the University of Alabama writing center. We used a formal heuristic based on Aristotle's *topics* and developed in 1978 by the faculty and graduate students of Indiana University of Pennsylvania's English Department (see heuristic below). We distributed this heuristic to the tutors, all of whom are graduate students in English, and instructed them in how to prepare students to use it.

Aristotelian Heuristic

DEFINITION

What is the point of discussion? the thing? What is it? Into what class (genus) does the thing fit? What kind of thing is it? What are the things which distinguish (differentiate) it from other things?

What other terms might be used to describe the thing (synonyms)?

What are some examples (exempla, anecdotes) of the matter of discussion? How does the thing work?

DIVISION

Into what parts may the matter of discussion be divided? How will the division be made? using what principle?

COMPARISON

A. Similarity

What is the thing like? With what does it share pertinent characteristics? To what which the readers might know better is the matter of discussion similar? Might an analogy be made?

B. Difference

In what do two things differ? What pertinent characteristics are not shared?

C. Degree

Which of two things is better than the other? What is more desirable? What do most people desire? Which is more valuable? Or valued? Which is more costly? Which is more important?

RELATIONSHIP

A. Cause and Effect

Is the matter of discussion a cause? or an effect? or both? If an effect and we wish to know the cause, ask: 1) Might there be more than one cause for an effect? (Look for ones you have not thought of previously.) 2) Is the cause which has been tentatively assigned adequate? Is it capable of producing the effect? Might other causes have produced the effect? 3) Were conditions such that the potential cause could operate? Was there motive? 4) Does the potential cause always produce an effect? Does it always produce the same effect? If the matter is a cause, what effect does it produce? Does it always produce an effect? Does it always produce this effect? Might it produce many effects?

B. Antecedent consequence

What are the logical consequences of the matter under consideration? Given this situation (antecedent), what follows from it (consequent). (Example: If a person is an English teacher, but he or she barely knows a comma splice when he/she sees one). What are the implications of a situation?

CIRCUMSTANCE (primarily used for argument)

A. The possible and impossible

1) What things of a similar nature have been accomplished? (For if a pair of similar things is possible, the other thing is possible.) 2) Might the matter under consideration be broken into parts so that one might say that since the parts of a thing are possible, the whole is possible? and vice versa?

B. Past fact and future fact 1) What past events may be used to show that the matter under consideration is possible? 2) What related events of a less probable nature have occurred? (For if the less probable has occurred, the more probable may occur.)

TESTIMONY

A. Authority

What experts are there in the field? Are they really experts? What are their opinions? When experts disagree ask:

1) Is there anything inconsistent, contradictory, or illogical in the expression of the opinion itself? 2) Do the experts harbor any prejudices that might influence or color the proffered opinion? 3) Do any of the experts have an axe to grind? an advantage to gain? a score to settle? 4) Is one expert's opinion based on more recent, more reliable information than the other's is? 5) Is one expert's opinion accepted by more experts? by the more authoritative experts? Is he quoted often by other experts? 6) What are the basic assumptions behind the expression of the opinion? Are any of these assumptions vulnerable? Does the expression of these assumptions reveal that the conflict between the experts is more apparent than real because they are viewing the matter from different points of view? 7) Is the expert attempting to conceal information or avoid certain issues?

B. Statistics

What figures are available about the matter under discussion? Ask these questions about statistics:

1) What is the source of these statistics? 2) Is this a qualified unbiased source? Is the source reliable? Official? 3) How were these figures arrived at? Are they accurate computations? 4) Was the sampling a reliably representative survey? 5) When were these figures gathered? Could there have been significant changes since then? 6) Are these figures contradicted or superseded by figures from other sources? (You can apply all of these questions to your opponent's statistics to determine if *his* argument is tenable.)

C. Maxims

What proverb, famous saying, generalization, epigrammatic pronouncement or other charismatic statement may be introduced?

D. Precedent (Example)

1) What has been done in cases similar to the matter of discussion? 2) What examples may be found of the matter? 3) What examples have led you to your conclusions about the matter?

Since we had discovered that our respondents do not possess pre-determined criteria which allow them to identify students needing help with invention, we decided that we too would operate without such criteria; however, we did tell tutors that a general guideline they might

wish to consider is that a writer may be experiencing difficulty with pre-writing if he or she frequently fails to introduce a new fact, assertion, or generalization in each sentence. This crude guideline certainly is untested, but it assisted tutors by supplementing their intuitions about papers.

For the purpose of this study, we monitored for a semester one tutor's (John's) work with students needing help with invention. During the semester, John determined that only three students needed such help. He gave each pupil a heuristic and explained how to use it, but he did not reveal to the students that their writings were being monitored. John kept photo copies of the students' pre-writing samples, rough drafts, and final papers; and he maintained a journal in which he summarized each conference and evaluated the progress of each student. To evaluate the students' progress, John established three criteria: the instructor's grade and commentary, the tutor's own professional judgment of the abundance and quality of ideas in the writing, and an analysis of student compositions and heuristic response samples.

All three students made progress throughout the term, but one in particular—Bruce—exhibited marked growth in the area of invention. A second semester freshman, Bruce visited the center nine times for a total of four and one half hours; he wrote six papers (and four heuristic response samples) during the semester. Although Bruce was enrolled in a freshman "composition" course, all six of his papers deal with literary topics.

Bruce's first paper, written prior to his receiving the heuristic, is characteristically deficient in information and observations:

"A CLEAN WELL-LIGHTED PLACE"

In "A Clean Well-Lighted Place," Ernest Hemingway reveals the characters of the two waiters by dramatizing their contrasting attitudes toward their jobs, the old man and themselves in the action and dialogue of the story.

The one-sentence introduction, and the fact that Bruce uses the story's title for that of his paper, both indicate the lack of thought he devotes to the assignment. The clumsy wording; the poor development; the awkward repetition of *dramatizing* and *contrasting*; and the gross, syntactical complication of an already dense assertion all suggest a lack of attention and understanding. Moreover, in no way does this introduction establish a context for the reader; the author fails to provide sufficient information to orient the reader to the purpose of the composition.

Bruce's next paragraph shows that he fails to grasp the facts of the text—a general problem that the heuristic can, and eventually does, help remedy.

The old waiter in “A Clean Well-Lighted Place” had a lot to say about the old man that came in his cafe. The old waiter had ill feelings toward the old man. In the first part of the story, the old waiter and his partner were having a discussion about the old man. In this discussion, a statement was made about the old man that he tried to kill himself. The old waiter had a comment for that, “He should have killed himself last week.”

Actually, it is the young waiter who has the ill feelings toward the old man and who makes the remark. The student has obviously mis-read the text. Further, the paragraph reflects a lack of imagination. Aside from the fact that the waiter is not really old, *the old waiter* is the subject of four of the paragraph's five sentences. The word *old*, itself, recurs eight times. And four of the sentences follow the identical syntactic pattern: subject, verb *have*, complement. But most importantly, the student is merely retelling the story—or is attempting to—and is not introducing any new information or insights about the scenario he describes. Bruce's teacher had given him a “D” on this paper, noting specifically his misreading of the text and lack of analysis.

During the first conference, John reviewed some of the mechanics-oriented problems on the first paper, and then gave Bruce a heuristic, explaining how it can help generate ideas for future assignments, stressing that he was not obligated to consider any group of questions not pertaining to his particular topic; for example, those concerning *Testimony* were irrelevant to the type of papers Bruce was writing because he was prohibited from using secondary sources. John focused on the first quarter of the heuristic. For instance, in answer to the question “Into what parts may the matter of discussion be divided?” Bruce named the elements into which fiction is divided traditionally: plot, character, theme, and so on. He then was able to discuss strategies for using these elements to write his forthcoming assignment on two science fiction stories: Vonnegut's “Harrison Bergeron” and Bradbury's “There Will Come Soft Rains.” Bruce was to compare and contrast the stories, focusing on setting, character, and theme.

Bruce worked in the writing center a second time with the heuristic and brought both the finished paper and a written heuristic response to his third conference with John. His grade had risen to a “C”. Although the paper contains many spelling and mechanical problems, it does show improvement, specifically in the introduction:

“Harrison Bergeron” and “There Will Come Soft Rains”

Talk of the future is found very often in today’s literature. Many authors tend to lean toward the time in the future when the human race will kill itself off. In Kurt Vonnegut’s “Harrison Bergeron” and Ray Bradbury’s “There Will Come Soft Rains,” the future is present in both of their works. Both authors use the setting, characterization and theme of the story to control the outcome of future life on earth.

As in the previous paper, Bruce fails to control language in a mature fashion; problems with awkwardness and vagueness abound. Despite these mechanical flaws, however, this paper (and especially its introduction) is far superior to the first. For example, this introduction provides a clearer context and pattern of organization. Rather than a bare one-sentence thesis, the author builds up to a thesis statement by first introducing the general thematic concerns of the two stories. Clearly, Bruce is beginning to add more information to his papers and is starting to elaborate on each point of discussion.

Similarly, the next two paragraphs of his paper exhibit a greater presence of ideas than do any of the paragraphs in his first paper.

In “Harrison Bergeron,” the time of the story is 2081. All of the story takes place in the home of Harrison Bergeron. His parents are sitting down watching television during the whole story. . . . Vonnegut is trying to get across in his story that people in the future will not have very much to do and so they will have to watch a lot of television to entertain themselves. . . .

The setting for “There Will Come Soft Rains,” is also in the future. The time of the story is 2026. The city where the story takes place is Allendale, California. The whole story is centered around one house in Allendale. Bradbury tells the reader what city the house is in because the city has been hit with nuclear warheads and is burnt up.

Disregard for a moment the stylistic problems. Both paragraphs show a definite attention to the thesis, a general comparison-contrast strategy, and an awareness of parallel structure—all elements with which the heuristic is concerned. In fact, Bruce’s heuristic response illustrates that he did incorporate several answers into his paper. For example, here is a segment of his response:

DEFINITION (theme)

“H.B.”—people are not equal, and society’s attempt to make them is foolish.

“Rains”—machines like men bring about their own destruction.

DIVISION (characters)

“H.B.”—3 main characters are Harrison, Hazel, George

“Rains”—no real characters. Machines are only real characters; they do all the work.

The heuristic response is reflected in the paper. For instance, regarding theme in Vonnegut’s story, Bruce writes, “The theme of ‘Harrison Bergeron’ is that people are not equal and society’s attempt to make them equal is foolish.” In another section of the paper, Bruce discusses character in Bradbury’s tale in a manner similar to his heuristic response: “In ‘There Will Come Soft Rains,’ Ray Bradbury does not use any characters as such. The characters in this story are clocks and machines.” The relationship between the heuristic response and the finished composition clearly exists. It would be illogical to assert that the heuristic was necessarily responsible for any improvement in Bruce’s (or any of the other students’) writing, but it does seem quite likely that there is some relationship between the qualitative and quantitative increases of information in Bruce’s papers and his use of the heuristic.

Bruce continued to make progress throughout the semester. His final paper shows a great deal more thought than any of his others, and he received a “B” for it. His instructor complimented his analysis and “elaboration,” saying the paper reveals a good understanding of the poem and “a lot of mental effort.” His introduction and first paragraph illustrate his improvement:

Many poems by Anne Sexton make reference to religious or biological creation. Some examples of these poems are “The Ambition Bird,” “For Elenor Boyland Talking with God,” and “Rowing.” But, Sexton also writes about other topics. In “Ring the Bells,” Sexton uses style, symbolism and characterization to show the feelings of a woman in an insane asylum.

Repetition is used throughout the poem to express the dullness and humdrum life the ladies lead in this insane asylum (Bedlum). Bedlum is a hospital for the insane, located in London. It was founded in 1247 as a church priory, but used as early as 1402 as a hospital for the insane. The repetition used in this poem is mainly whole sentence structures. This technique is used by Sexton to show that the woman really doesn’t have much to say (dullness), so she has the woman repeat herself often. Some examples of this include, “and because the attendants make you go/ and because we mind by instinct, . . .” and “who passes us each a bell,/ who points at my hand. . . .” Repetition is used effectively for the style in “Ring the Bells” to show the dullness “the circle of crazy ladies” have to face each day.

Granted, Bruce is still experiencing stylistic problems, but the specificity and quality of ideas in the above passage excel those in his previous efforts. For example, in the introduction's second sentence, he supplies three examples to support the assertion in his first sentence. Similarly, when discussing Sexton's use of repetition, Bruce provides examples and definitions of his terms. It is important to note that his heuristic response for this paper was his most extensive; much of the information in his paper derived directly from his answers to heuristic questions.

In no way are we attempting to "prove" that the heuristic was necessarily responsible for Bruce's progress; however, we do believe that his use of the heuristic in the writing center had a positive effect on his writing. Clearly, he was able to incorporate information from his heuristic responses into his papers, and the additional information usually helped improve the compositions. Also, the heuristic helped Bruce become conscious of some attributes of good writing: being specific and providing examples whenever possible. In other words, three specific benefits of using the heuristic are that it can help clarify a student's ideas concerning an assignment; it can enhance the quality of a student's writing by helping him acquire some desirable elements of good prose; and it can provide a useful structure and guideline for the tutorial conference, in that the tutor can use the questions on the heuristic to guide the student toward invention.

Bruce's instructor, with whom John had no communication, specifically complimented Bruce on his progress in development and "elaboration"—both by-products of the invention process. Other students working throughout the semester with the same heuristic showed similar progress. For example, whereas Bruce progressed from "D" to "B" work, John's other two freshmen progressed from "F" to "B" and "C" to "B" work. Our other tutors reported results similar to John's. In fact, the results of our work this semester with the Aristotelian heuristic are so encouraging that we plan to make the heuristic a standard part of our assistance to students needing help with invention.

Next, we plan to devise a reliable system for targeting students who specifically need assistance with pre-writing. We hope that this study encourages others to integrate formal heuristics into their centers, taking them from the pulpits of professional conferences and putting them to practical use in the writing center.