Critical thinking involves a multitude of mental operations from recalling to analyzing to evaluating information and ideas. In order to foster critical thinking, students need to build bridges between concrete, everyday ideas and abstract, academic concepts. These bridges can be built through journal writing. In his book "Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World," R. Paul outlines 35 dimensions of critical thinking. Three of those dimensions that could be cultivated through journal writing are as follows: (1) because a journal is written in the first person it allows a person to explore thoughts underlying feelings and feelings underlying thoughts; (2) journals provide a space in which students can explore new ideas by placing them in new contexts; (3) through journal writing students can identify contradictions as they attempt to clarify or critique texts. More generally, journals can be used in any number of ways, depending on the instructor's orientation. Inside the classroom, journals can be used at the beginning of class to focus student attention on a topic. Students could also be asked to read their journal entries aloud. In-class journal writing forces students to switch from a passive listening mode to one in which they must create and explore their own beliefs. At the end of class students can use journals to reflect on what they have learned. (Contains a strategy list of 35 dimensions of critical thought; also contains 15 references.) (TB)
BUILDING BRIDGES TO CRITICAL THINKING:
UTILIZING STUDENT JOURNALS IN THE COLLEGE CLASSROOM

presented by

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(Running head: Journals and Critical Thinking)
Building Bridges to Critical Thinking: 
Utilizing Student Journals in the College Classroom

Faculty and administrators nationwide have identified critical thinking as an essential objective of education. They indicate that teaching critical thinking is the core of what teachers should be doing (Browne & Keeley, 1989). Critical thinking involves a multitude of mental operations from recalling to analyzing to evaluating information and ideas (Beyer, 1987). It includes (but is not limited to) the ability to evaluate, analyze and critique reasons and evidence, to make relevant distinctions, to clarify information to avoid inconsistency and contradiction, to reconcile apparent contradictions, to distinguish poor reasoning from strong reasoning, etc. Essentially, critical thinking involves higher order thinking skills (Paul, 1989). It is the role of the instructor to facilitate thinking by creating situations and "mutual enterprises" that are interesting and relevant for everyone involved (Smith, 1990).

Faculty are encouraged to integrate thinking skills in the classroom through the development of higher order thinking attitudes. This can be done through implementing activities that encourage and/or require the use of higher order thinking skills. It is not enough for students to know the facts. They need to know how to apply them, when to question them, and how to relate them to other topics. This is what Halpern (1987) labels as the "hallmark of critical thought." The challenging part of critical thinking is helping students comprehend abstract concepts and principles. In order to foster critical thinking then, students need to build bridges between concrete, everyday ideas and abstract, academic concepts (Meyers, 1987).

These bridges can be built through writing. Writing is a traditional and obvious way to encourage students to become creative and critical thinkers, provided that the writing extends the thought and imagination of the writer. Writing-to-learn exercises actively involve the students, transforming them from passive learners to active learners and provide insights as to how students think about material that
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is presented to them. In addition, writing not only unveils what students think, it also gives them an opportunity to exercise their thinking abilities (Nelson, 1989). Hence, through actively participating in writing-to-learn exercises, students can develop higher order thinking skills.

One writing-to-learn strategy that can be utilized on a daily basis is the student journal. Journals, (sometimes called learning logs, daily insights, or learning notebooks), "record each students' personal, individual travel through the academic world and also serve as springboards for formal writing assignments; they generate life and independent thought in a sometimes over-formal classroom atmosphere" (Fulwiler, 1987). Journals provide students with an opportunity to respond to course material in ways that can help them clarify concepts and promote critical thinking about a concept. In fact, Moss and Holder (1988) refer to journals as "thinking on paper." Effective use of student journals can be that bridge to the "hallmark of critical thought."

This paper will discuss how journal writing can promote critical thinking and various ways journals can be effectively utilized inside and outside the classroom.

JOURNAL WRITING AND CRITICAL THINKING

Critical thinking instruction assumes that there are clearly identifiable and definable thinking skills that students can be taught and if these skills are recognized and applied, students will become more effective thinkers. Richard Paul (1990) developed 35 dimensions of critical thinking with application strategies to help teachers remodel and redesign instruction to promote critical thinking. In his book, Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World, he indicates how each of these principles can be transformed into teaching strategies. The various strategies are not mutually exclusive and often overlap, yet each illuminates a dimension of critical thought. The 35
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strategies are listed in Appendix A.¹ Many dimensions of critical thought are facilitated through journal writing, depending on how the assignment is structured. Following, is a brief description of three of the dimensions developed by Paul that are evidenced in variations of journal writing assignments.

S-4 Exploring thoughts underlying feelings and feelings underlying thoughts

Journals can focus on the subject matter being presented while including ideas and applications regarding that material that are important to the writer. Because a journal is written in first person, it gives students an opportunity to explore their thoughts and feelings about material being presented. This dimension of critical thinking helps the students understand the connections between thoughts and feelings. They recognize that thoughts and feelings are two aspects of their responses to any given situation. Students can ask themselves, "Why do I feel this way? How am I looking at this situation? What inferences am I making?" This enhances self understanding which can lead to self control and self improvement. In a nutshell, this dimension of critical thinking requires that students understand their feelings and emotions in relation to their thoughts, ideas and interpretations of the world. This understanding can be facilitated through journal writing.

S-11 Comparing Analogous Situations: Transferring Insights to New Contexts

This dimension focuses on the student transferring insights and concepts to new contexts. When a student is exposed to a new idea, the ability to apply that idea to an analogous context provides enhanced meaning of the idea while encouraging critical thought. When students learn a new concept or principle, they can enrich their understanding of it by applying it to situations not mentioned in the text or lecture.

¹For a more thorough analysis, consult any of the "Critical Thinking Handbook" series. They provide more in-depth information in regard to the critical thinking theory behind each principle and provide application examples of when and how the strategy can be used in teaching (Paul, 1989).
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S-21 Reading Critically: Clarifying or Critiquing Texts

As critical readers, students ask themselves questions as they read and wonder about the implications and meaning of the material. Students can question the validity of the material, identify contradictions with what they know or suspect to be true, and even disagree with what is written. When students summarize and/or evaluate text material through journal writing, they sort through ideas and words, and process concepts and issues in terms of their own experience and understanding.

These are just three of the 35 strategies listed. As one examines these and the remaining strategies, it becomes evident that student journal assignments, when structured effectively, can help students develop higher order thinking skills through their writings about course content.

Depending on the thinking skills the instructor wants to emphasize, journals can provide a way for students to relate what they have learned in class to experiences they have had, or information, concepts, and/or ideas they have learned previously. Students can make abstract concepts concrete and meaningful when asked to apply an issue to a relevant everyday occurrence. Journals require students to be active participants in the learning process, which is essential to critical thinking because "thinking is not a spectator sport" (Halpern, 1987).

EFFECTIVE UTILIZATION OF JOURNALS

Journals can be used in numerous ways depending on the instructor's purposes and the thinking skills s/he is trying to develop in the students.

Inside the classroom, journals can be used at the beginning of a class session to focus student attention on the topic. The entries may be in response to some of the readings, may ask for the students' definition of a term, a perspective on a concept, etc. This is effective because the students commit themselves to at least tentative exploration of a topic or idea. Another helpful strategy is to ask some
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students to read their entries aloud. While this may be difficult for many students, it does help "affirm the value of their personal voice" (Fulwiler, 1987). It also shows the value the instructor places on journal-writing. Teachers are encouraged to refer to and use examples of journal-writing in class in order for students to realize its importance.

During class, a 5-10 minute journal-write gives students a chance to re-engage with or re-focus on the topic. In a class utilizing the traditional lecture format, the student shifts from a somewhat passive role to a participant role and very often becomes more active in the learning process. Whether the writing pause is planned or spontaneous, it can sharpen the focus of learning, refocus a rambling discussion and/or generate new thoughts that students did not previously have. This can facilitate the critical dimension of developing one’s perspective by exploring beliefs (S-12).²

This dimension encourages students to develop their own points of view and insightfully express their perspectives. In order to do this they must create and explore their own beliefs and their own reasoning. When given class time to participate in a journal-writing activity, students who are unsure what to think about ideas and concepts are given time to reach some tentative conclusions. For example, students could explain how learning about gender differences in conversational style has changed their thinking in some way. This gives them experience in describing their own perspectives and philosophies, which is the focus of this dimension.

At the end of the class, the instructor could take 5-10 minutes and have students summarize the main focus of the class period, what they learned, or what questions remain unanswered about the topic. This develops the students' perspectives on course content, allowing them to clarify issues and conclusions which is representative of critical dimension S-13. With this dimension, students are encouraged to distinguish facts from interpretations, opinions, or theories.

²The strategy numbers included throughout this section refer to the 35 Dimensions of Critical Thought developed by Richard Paul (1989, 1990) as listed in Appendix A of this paper.
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This method also gives students experience in distinguishing relevant from irrelevant information, which is described in critical thinking dimension S-31. This dimension states that critical thinking requires students to make distinctions between facts that are relevant to an issue and facts that are not. By summarizing the main focus of class, students gain experience in limiting their remarks to the facts that are germane to the class material covered that day. Another approach might be to slightly change an issue that was covered in class and have students respond in their journals by comparing information that was relevant in the first scenario to information that is relevant in the second scenario. For example, in a unit on assertiveness, students are likely to discuss the rationale behind an assertive message and how to integrate the skill into their personal communication behaviors. As a journal-write at the end of class, the student might be asked to write how that assertive message or the rationale behind it might change when interacting with a person from a different culture, or a different status in the relationship. This forces the student to compare relevant information in slightly different situations, encouraging the development of this dimension. Additionally, the final act of writing in the classroom helps students to synthesize course material, giving it more value and meaning to them.

Journals can also be utilized outside the classroom. Written responses in journals to class lectures, films, videos, readings, teacher questions, and other learning sources can sharpen student responses to their academic experience. In teaching a unit on relationships, an instructor might ask students to write a response to the film, Indecent Proposal. Students could respond to questions related to the film regarding their own feelings and behaviors if they found themselves in a similar situation. With this variation, students develop critical thinking domain S-35 by exploring the implications and consequences of their behaviors. The instructor could also suggest a change in the film, and have the students respond to what implications these changes might have and how they would affect the overall meaning of the story. For example, what if Demi Moore had not spent the night with Robert Redford? How would that have changed her relationship with him, and/or Woody Harrelson? Through journal
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writing assignments such as this, students can explore implications and consequences and develop a more complete understanding of their meaning. It also aids them in developing their own perspectives through exploring their beliefs (S-12) and gives them experience in transferring insights from the film (or other learning source) to new contexts (S-11). Further, students are able to explore their own thoughts and feelings and how they relate to one another (S-4).³

Journals can also be used for problem-solving. The act of writing out the problem is, in itself, a clarifying experience. Ask students to write about a concept they do not understand. Have them write why it is difficult for them to comprehend the concept, and how they can make more sense of it. With this approach, students are given the opportunity to not only clarify the problem (as previously discussed with critical domain S-13), but to explore and examine their own thinking about a problem or issue evidenced in critical domain S-28: Thinking precisely about thinking. This domain indicates that the ability to think about thinking is an essential requirement of critical thinking. Students can assess their own reasoning and the reasoning of others when they are thinking about thinking. When students think precisely about thinking they use terms such as assume, infer, conclude, ambiguous, perspective, elaborate, bias, justify, interpret, etc.

In the journal assignment, students can explain their thinking on an issue utilizing the above terms. In a journal assignment asking students to write on the topic that "all writing is persuasive," a student wrote the following response. Note that through writing about the idea, the student was forced to give considerable thought to the quotation:

³In formulating questions for student responses, utilizing higher order questions generally fosters higher order thinking skills. For a comprehensive treatise of the development of higher order questions, refer to Bloom's Taxonomy of Educational Objectives. See Appendix B for a brief summary of the different levels of the Taxonomy that can serve as a practical guide in formulating questions that require higher order thinking skills.
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It’s hard to write on my understanding of this quote because I don’t think that all writing is persuasive. To elaborate more fully, what about assemblies for models and cookbook recipes? I guess that’s kind of ambiguous though, because they’re trying to get you to do something a certain way. But I don’t know that I would really interpret that as persuasive. Still, I did follow the recipe for cooking a casserole this week. Looking at it from another perspective, I guess it could be labelled as persuasive. (I seem to be contradicting myself here)! I still have a hard time seeing it as persuasive though. It depends on how I define persuasive writing. If it influences another person’s actions, I guess it is persuasive (Fulwiler, 1987).

A summary journal, which includes brief summaries of learning units (i.e, text chapters, journal articles, lectures, etc.) is another effective use of student journal writing to promote critical thinking. It addresses numerous dimensions of critical thought (refer to previous descriptions of dimensions S-11, S-13, and S-21). Summarizing involves processing concepts, issues, etc., so the student will understand them. It stimulates critical thinking by helping students fix ideas in their minds, providing practice for identifying main issues and concepts, offering opportunities for prioritizing and determining essential from non-essential information, and focusing attention on specific concepts and issues (Corner, 1983). It also allows students to put concepts in their own words and relate them to their own experiences (Meyers, 1987). Sample summary journal questions could include the following (again, it is recommended that faculty utilize questions that involve higher order thinking skills according to Bloom’s Taxonomy).

Chapters of a book, journal article, etc.:
"In two brief paragraphs, summarize Chapter One in the text. Focus on the differences between impersonal and interpersonal communication and give an example of interpersonal communication from your own experience."

A lecture or classroom presentation:
"Write a one page response to the following: 'From my perspective, the focus of today’s lecture was...,' and/or 'I learned that...."

A classroom discussion:
"There were numerous ideas presented in today’s discussion. Given the topic for your own speech, what persuasive strategies will be most effective for this audience? Justify your answer."

A film or videotape (shown in class or viewed independently out-of-class):
"'True Colors’ shows us how racial prejudice and discrimination are evidenced in the real world. If you had to summarize this video to a junior high school student, what would you say?"
Journals and Critical Thinking

As students participate in journal writing, their understanding of themselves and course content is deepened as they are allowed to reflect, make connections, and/or test their understanding of the information and ideas being presented. Journal writing forces students to think through a topic and synthesize discrete facts into logical frameworks for retention. By responding to reading, lectures, and other course activities, students gain deeper understanding of course material and themselves (Fulwiler, 1979).

In summary, through understanding how journal writing can promote critical thinking, and by effectively using journals in class, journal writing can build sturdy bridges to critical thinking. Some students may build and cross the bridge more rapidly than others, and hopefully, the rest of the students will follow their lead and eventually cross the bridge on their way to the development of critical thinking.
APPENDIX A
STRATEGY LIST: 35 DIMENSIONS OF CRITICAL THOUGHT

A. Affective Strategies
S-1 thinking independently
S-2 developing insights into egocentricity or sociocentricity
S-3 exercising fairmindedness
S-4 exploring thoughts underlying feelings and feelings underlying thoughts
S-5 developing intellectual humility and suspending judgment
S-6 developing intellectual courage
S-7 developing intellectual good faith or integrity
S-8 developing intellectual perseverance
S-9 developing confidence in reason

B. Cognitive Strategies - Macro-Abilities
S-10 refining generalizations and avoiding oversimplifications
S-11 comparing analogous situations: transferring insights to new contexts
S-12 developing one’s perspective: creating or exploring beliefs, arguments, or theories
S-13 clarifying issues, conclusions, beliefs
S-14 clarifying and analyzing the meaning of words or phrases
S-15 developing criteria for evaluation: clarifying values and standards
S-16 evaluating the credibility of sources of information
S-17 questioning deeply: raising and pursuing root or significant questions
S-18 analyzing or evaluating arguments, interpretations, beliefs, or theories
S-19 generating or assessing solutions
S-20 analyzing or evaluating actions or policies
S-21 reading critically: clarifying or critiquing texts
S-22 listening critically: the art of silent dialogue
S-23 making interdisciplinary connections
S-24 practicing Socratic discussion: clarifying and questioning beliefs, theories, perspectives
S-25 reasoning dialogically: comparing perspectives, interpretations, or theories
S-26 reasoning dialectically: evaluating perspectives, interpretations, or theories

C. Cognitive Strategies - Micro-Skills
S-27 comparing and contrasting ideals with actual practice
S-28 thinking precisely about thinking: using critical vocabulary
S-29 noting significant similarities and differences
S-30 examining or evaluating assumptions
S-31 distinguishing relevant from irrelevant facts
S-32 making plausible inferences, predictions, or interpretations
S-33 evaluating evidence and alleged facts
S-34 recognizing contradictions
S-35 exploring implications and consequences

Source:

REFERENCES


