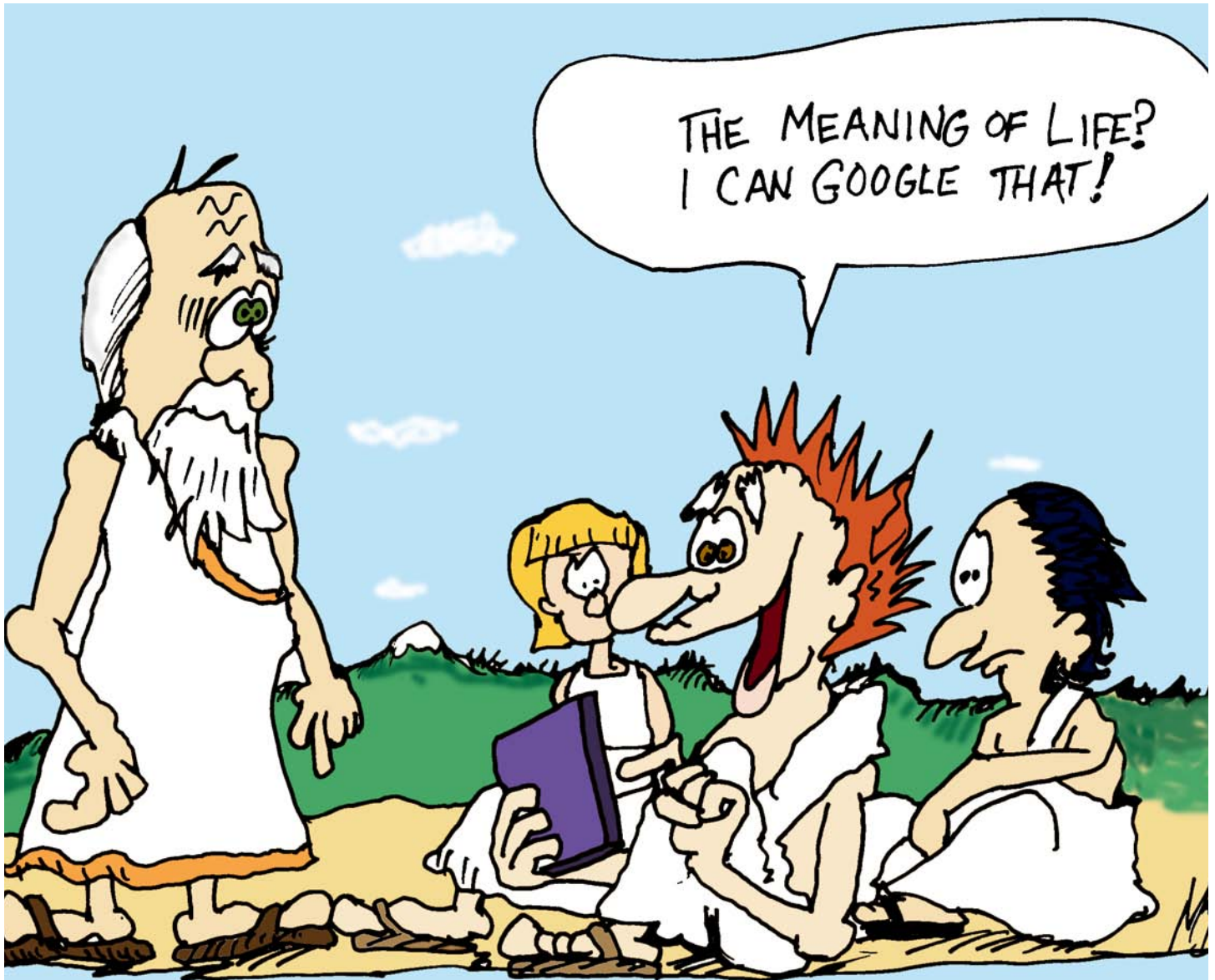# HOW CRITICAL IS CRITICAL THINKING?

FACTC Focus 2010

Also – Compare salaries at Community and Technical Colleges across the state – full time and part time faculty, college presidents and district CEOs, plus current and past tuition and fees.

See authors Jared Anthony and Paul Baeder video comments by clicking photos in their articles

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LOL: THE EASY ROUTE TO CRITICAL THINKING

BARBARA B. PARSONS
TACOMA COMMUNITY COLLEGE

"Just to let you know, I really need an A in your English class," a student said to me the other day. It sounded almost like a threat.

I would like to say that I was taken aback by the sheer effrontery of the comment. However, since I have heard similar announcements before, I recognized these words for what they were: a last ditch effort to grasp something that seemed entirely out of reach. The demand was typical of a general lack of clear thinking on the part of our students. They understand the goal, or at least the symbol of the goal, but fail to understand the steps they must take to reach it. They do not analyze; they merely respond.

When I teach freshman composition, my first chore is to convince the students to annotate their textbooks. They resist body and soul. Why would they want to mar the pages of textbooks that will be worth more when re-sold to the bookstore if the pages are unaltered? I approach this problem head on, citing the cost of the textbook, the cost of the tuition, the likely return on an unmarked text, the likely return on a marked text. These last are only marginally-- punduly noted— different. While my students are appalled at the numbers, they still resist altering the pretty pages of their texts. This failure to annotate, to consider, to question, to rail against the words in their textbooks is all too symbolic of the students' resistance to learning. Critical thinking, we all can agree, involves questioning. It requires breaking things down and building them up again. If I cannot inspire my students on the most basic level to do more than let the words in their textbooks to wash blandly over them, how can I inspire these students to think harder about deeper issues? How can I teach them to challenge the skillful rhetoric in intelligent, but flawed, arguments?

Here is my epiphany: Critical thinking is most painlessly taught with the liberal addition of humor into the classroom. Humor, yes. I laugh at myself; I laugh at them; they laugh at me;

we laugh at the authors we read; we laugh at current events. We laugh at IDEAS. After all, humor is, at its heart, clear-eyed analysis.

In English 101 we discussed an article last week in which the author predicted a break down in basic societal values if gay marriage is legalized. He attempted to prove this break down by drawing a correlation between the legalization of gay marriage and the illegitimate birth rate in Norway. It was scintillating stuff.

In our discussion, one of my students doesn't nod with the others like a bobble-head and then move on to the next point; instead she says, "I don't get the connection."

"You don't see how people of the same sex getting married affect the rates of single straight women having babies out of wedlock?" I ask, surprised. I get a laugh.

Encouraged, she says, "No, in fact, it seems to be entirely unrelated. We have no baby-making at all in gay marriage." (Class laughs again. We are talking about sex, this is funny. The attention level in the class surges about 70%. Someone in the back says to his neighbor, "what did she say?")

"But the author has established that rates of unwed pregnancy increased after gay marriage was legalized. Obviously, you are missing something," I say with wide-eyed incredulity.

"Just because he says they connect,

doesn't mean they connect," someone points out. "They don't connect at all," someone else mutters under his breath. Everyone laughs, me included.

"So, if there isn't a connection between two things, one of which happened after another, but the author says there is a connection, what is the logical problem there?" I ask. This is my teaching moment. I just don't announce it as such. I find it best to keep these things to myself.

"It's one of those Latin-thingies," the muttering student says, only this time he isn't muttering.

"By Latin-thingy you mean fallacy? Good. Which thingy are we talking about here?"

Ten students start flipping through their texts to find the section on logical fallacies that they read the night before (but did not annotate—if they had, how much faster might they have found it?) Before they know it, we are on a hunt in the article for more fallacies. They are thinking critically, but they are also having fun.

And so am I.

CRITICAL THINKING: WE KNOW IT WHEN WE (DON'T) SEE IT

BY JARED ANTHONY, PH.D.
SPOKANE FALLS COMMUNITY COLLEGE

The other day in my English 102 class, I asked students to write their research questions on the whiteboard. We were discussing how to narrow each one when we came to "How many people are being affected by the current crisis?" A student asked which crisis the writer had in mind. The writer, who could have chosen to remain anonymous, instead said, from the back of the room, "Use your brain." Maybe this is a paraphrase of "think critically." But I would argue that it's a weak paraphrase. We can use our brains in lots of ways, only some of which qualifying as critical thinking. And I think this incident highlights a particularly important aspect of critical thinking by its absence.

The word critic has its roots in the Greek word for separating, discriminating, judging. The idea of judging gives critical thinking an evaluative aspect. Certainly, the writer of the current crisis question was judging the thinking of the other student—and finding it lacking. But he

CLICK PHOTO TO SEE VIDEO

wasn't judging well because he wasn't employing the reflective aspect of critical thinking that comes from the notion of separating. Among other things, critical thinking refers to imagining and attending to multiple perspectives on a subject. This deliberate mental act of separating from oneself—putting oneself in someone else's shoes—provides the space for reflection upon one's own ideas and one's response to the ideas of others. These aspects come together, of course, when we think of a judge standing apart from the judged. But they are not identical, and as we can see in this example, one does not imply the other.

The writer of the question was able to stand in judgment of his classmate's thinking, but he was not able, at least at that moment, to reflect upon his own thinking. He did not imagine how another person might read his question, and so he missed the opportunity to recognize that the crisis he had in mind would not necessarily be the crisis evoked by his question in the minds of others.

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In composition classes, we give much attention to the heuristic value of the rhetorical notion of audience. As instructors, we try to respond to students' writing as active participants in a conversation, providing them with a real audience. We set up peer review activities with the same goal in mind. We do this because we know that the ability to perform the reflective aspect of critical thinking does not manifest spontaneously. It can be taught, but only through repeated practice does it (sometimes) develop into a persistent habit of mind.

Intentionally adding multiple perspectives to one's own is an extremely valuable habit of mind. It helps us refine our ideas and the expression of them. A key feature of academic discourse, which is largely persuasive in intent, is the anticipation of and response to objections. Beyond the academy, this critical thinking skill facilitates effective participation in personal, professional, and civic conversations. It allows us to learn from each other, as opposed to simply

talking (or even shouting) at each other, because we don't just get better at making our own cases; we also get better at recognizing when another perspective is the more useful one.

I think when my student responded to a question about his own question with an angry "use your brain," it was an expression arising from defensiveness. He felt his intelligence was being challenged, and he reacted by challenging the intelligence of his interlocutor. As awkward and unpleasant as moments such as these can be, they may represent an unavoidable stage in the development of critical thinking abilities. It can be startling, even threatening, to discover that the way I see the world isn't the only way the world can be seen. Although the discovery will probably not be sufficient to convince me that my way isn't always the right way, it is certainly a necessary one to make if I am going to learn to communicate effectively with anyone, including myself.

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CRITICAL THINKING'S NEW CLOTHES

BY STEVE QUINN
OLYMPIC COLLEGE

I don't teach critical thinking. If you assume that is because I teach automotive technology, you haven't looked under the hood lately. I don't teach how to use a wrench, either. No lectures or assignments analyze its etiquette or evolution; students earn no points or certifi-

> . . . we will one day recognize what we call by the lowly title of "critical thinking" as something completly new.

cates in its mastery.

On the other hand, I do expect students to tell it from a handsaw (when the wind is out of the south), to use it safely and with deliberation. And they consistently rise to meet my expecta-

tions. How do they get so good at it? I am just a grasshopper in this field; is it possible I have stumbled upon the secret of teaching without teaching?

If linguistic evolution has any predictive value, we will one day recognize what we call by the lowly title of "critical thinking" as something completely new. Perhaps it will be called dynamic metacognitive contextual assessment skills. With a little work, it may even get its own acronym, or a college-wide ability named in its honor. Either that or we will laugh at ourselves when we remember that it is something quite old. I think we used to call it common sense.

"Common" does not imply innate, or easy, or (as we seem to intuit these days) of little value. Clean water used to be common, too. Being natural does not mean something does not require any work. No one is born knowing how to hammer a nail or choose a good melon any more than where to use an adjective or an axiom.

If you smell a contradiction here, you are correct. "Don't take it for granted," I advise, then continue, "but don't put it on a pedestal, either. It's just a wrench, after all."

I learned a number of languages when I was younger. Each time I gained some fluency in a new one, someone would make the request, "Ooh, say something in that." "Do something clever with a wrench." "Think critically for me (and if I show you my router, can you do it for me online?)."

Yes, graduates in my program are good at using wrenches. But they also know the difference between tools and the problems they help solve. If they thought about it, I think they would also know it was the problems and not me that taught them about the tools. Is it important for them to ponder such things? Less than you might think.

WORDLE AS A REVISION TOOL

ALEXIS MCMILLAN-CLIFTON
TACOMA COMMUNITY COLLEGE

Revision is literally re-seeing, a fact I try to stress to my composition students each quarter as we come to terms with the writing process. This last, most important step is the one that seems easiest to skip for beginning writers, especially with relatively short essay assignments that they can complete in one sitting. Though all components of the process are necessary, revision offers the most opportunity for students' critical reflection upon their own texts.

To enforce the revision process, I've struggled with requiring multiple drafts of an assignment, the final results of which often feel forced. With the fast-paced quarter system, there often simply isn't enough time to allow for genuine reflection over a piece before we're zooming off to the next project.

Then I discovered Wordle.net, a self-described web "toy" that generates "word cloud" images from text that users feed it. Words are assigned a font size in the cloud according to how often they appear in the text: the more frequent the word, the larger the font. The images themselves are lovely. Promoting the concept of play, the website offers a variety of ways to manipulate the initial generated image. Clouds can be modified to vary color, shape, and direction of

fonts. When finished, they can be published to the website and shared with others with a distinct hyperlink. It should be noted that Wordle is preset to ignore the most common words, so "the" and "I," among many others, fail to appear. This can be changed if desired.

Wordle provides a quite literal way of re-seeing a text, and I immediately envisioned how it could be used in the classroom. Over the past two quarters in my English 101 courses, I've done away with the mandatory revision of the first essay. Instead, I've asked students to run the text of the essay through Wordle, and share the images they create with everyone via an Angel discussion forum. The prompt simply asks students to respond to the image the Wordle creates from their essay text, and project what this image might suggest about their writing habits.

First of all, students seem to enjoy playing with the site as much as I do. Titles of forum posts this quarter included "Whoa!"; "Fun!"; and "I am surprised!" Many obviously take great care in fine-tuning the appearance of their word clouds, making sure the colors are compatible with the content of their essays. One student's essay was about T-Mobile's website, and he presented his cloud in colors of pink, white, and black to match the company's theme. In commenting on the clouds generated by others, many observers found links between the colors used in a Wordle image and the tone of the draft itself.

Size differentiation between words allows for insight, as well. To share one student's observations regarding a word cloud reflecting several large, equally-sized words, "I believe it says I over used a few words in my essay and I should use a thesaurus so I don't end up repeating myself […] I tend to use the same words over and over again. I need to expand my vocabulary so readers don't get bored with my overuse." Another student was happier with the results: "Well I am excited that the topic of my paper was the most brought up words. So at least I know my main focus stayed on track through my paper!"

After several posts mentioned the potential need for visiting a thesaurus in future writings, yet another student challenged this impulse. " I think its ok to use some words over and over again (within 9 reason of course…) It plays into the sub-

conscious part of learning or persuading - if you want to drive a point home, slip that word in a few different places... so I like to see my 'sneaker' words in my cloud show up mid-sized. I hope the point of this whole project wasn't to shove us toward thesauruses."

This prompted a further identification of other students' "sneaker words" and how those impacted the corresponding purpose of their essays.

As I said, revisions of essay one are no longer required, but they remain an option for improving grades. Many have taken me up on this following our Wordle discussion, and each has noted some variation of "attention to vocabulary" as an issue that they particularly focused on for the revision. Several have also bookmarked the site, declaring intentions to use it again with future drafts and other courses.

A word cloud image generated by Wordle

INTELLECTUAL FITNESS

CAROLE MACKEWITCH, M.ED.
CLARK COLLEGE

When I ask my community college students, "Why are you here?," the usual responses include, "To get a certificate or AA degree," or, "To transfer to a university," or, "To improve my skills on the job." I find it curious that in the 25 years I have been asking this question I have yet to have a student respond, "To improve my thinking!" Isn't improving the thinking of students the purpose of a college education?

How is it that there is such a "disconnect" between the goals of students and the purpose of a college education? Oddly enough, one of the causes may be that all of us think! Since we all think, we take it for granted. Our thinking

> ## Since we all think, we all take it for granted.

is as automatic as our respiration. Both are processes that happen regularly, with little effort and with little attention to the process. If the quality of our breathing suffers, we become painfully aware of it and seek immediate medical attention and treatment. If the quality of our thinking is poor, it hurts us in a less urgent (but no less important way) by limiting our potential to make sound academic, personal, ethical and professional choices. The quality of our thinking determines the quality of our lives, and yet this is the very skill that we do not explicitly teach our students.

Students come to us with thinking skills that have been modeled by their parents, friends and the authorities of the institutions they identify with. They have learned how to get by with minimal intellectual exertion. When they arrive at our doors, our expectation is that they have

already learned how to think, and we see our job as teaching them the content of our courses. Here is the second "disconnect." Yes, students do think, but their thinking is undisciplined and egotistical (focused on how to do what they need to do, in order to reach what they want in the least painful way possible).

As instructors, our own egotistical thinking informs us that students are registered in our courses because of an innate interest in the content area we teach. In reality, the student's thinking may be focused simply on "passing the class" by using the skill they are most adept at; rote memorization, or a less academically savory method. We shake our heads in dismay at the lack of good thinking exhibited by our students, but are at a loss about what to do about it. After all, they should already be able to think well, or they shouldn't be in college!

There is no doubt that students can exert tremendous effort and focus on reaching a goal that is important to them. The track student who runs a mile in under 5 minutes, the college baseball pitcher who can throw a fast ball and curve ball with perfect control, the students that visit the College Fitness Center daily, working diligently to improve their physical strength and endurance, are all willing to spend hours of sometimes painful practice to enhance their performance. Just as we wouldn't expect anyone to throw a perfect curve ball the first time, or even the 50th time they tried, we can't expect students be good, critical thinkers on their first (or even 50th) attempt.

As college educators then, our goal must be to begin the hard and important
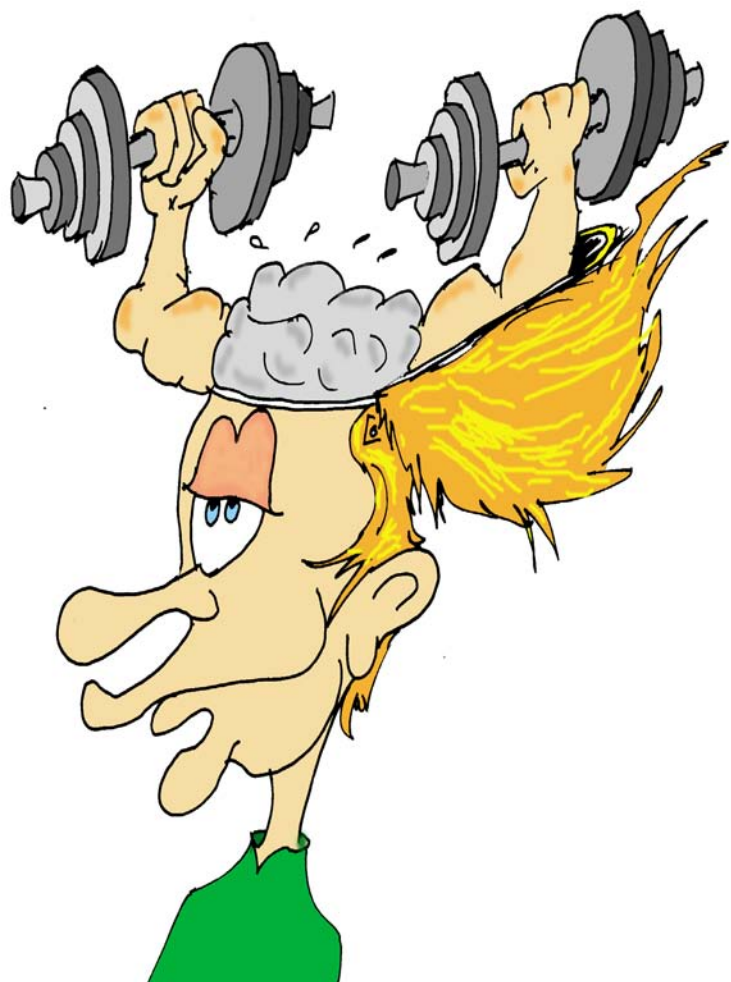
work of teaching our students how to think. We can do this by professing less and coaching more. We need to identify the most important concepts and ideas in our discipline, and once we have identified them, we need to coach students on how to form and answer the questions that are relevant to these ideas, train them to see the content from varying points of view, model how to gather and evaluate the information needed to understand and form an intelligent opinion about what they are learning, and provide them with a structure and process (a training and practice program) to approach not just our discipline, but any discipline.

In short, we need to coach students to become aware of their thinking, and to evaluate their thinking for the express purpose of making their thinking better, not just in our course, but in every facet of their lives.

THE QUESTION IS THE ANSWER

REBECCA HARRIS
OLYMPIC COMMUNITY COLLEGE

Being a veteran teacher of thirty-six years in public high schools, universities and community college, I have experienced the vast pendulum swings in methodology and forced paradigm shifts through the ages. One element of the educational process, however, has morphed by itself, and that can be witnessed in the downward spiral of our students' abilities to honestly engage in creative thinking. Certainly, we can blame the flash and dash media, the flood of mind-numbing video games, and even our "precious" time-saving devices of voice mail, email, and now the educator's nightmare device--texting. Our populace has become so accustomed to force-feeding of information and as Paolo Friere called it "the banking concept of education," that students assume think-ing is not necessary. We have all experienced that challenging student who gets on our last nerve by questioning and refuting everything, as well as the student whose continual question is, "Will we be graded on this?" to determine if the lesson or assignment is 'worth their time and effort'. As education became the deposit information and then withdrawal for a test, followed by disposal

> our nation swiftly became one of non-thinkers

to make room for truly 'worthwhile' information, our nation swiftly became one of non-thinkers who depend upon others to hold their hands and to filter truth from untruth for them. Thus, they shirk responsibility for "bad decisions" and the accompanying guilt.

Where did this happen and why? More importantly, how can we stop the mere regurgitation as symptomatic of the failing mind? Can we teach creative

thinking and hope to reverse the damage already inflicted? The answer is, YES!

On campus, many of my students call me "coach." No, I am not athletic, but I do encourage and demand mental exercise in my classes, and I refuse to merely be a source of information; that is the role I assign to my textbook. In class I am a participant, not the focus. My strategy relies upon student input and constant questioning. Many would call this 'playing devil's advocate'. Seldom is a comment tossed into the lesson without questioning not only its validity, but its application and worth in the general scope of humanity. How does this information apply and to whom? Why? When might this occur and under what circumstances? Could it be avoided? Should it be avoided? Students know to expect extensive questioning, and try to anticipate questions which might result from a comment they make. One might think students would find this daunting and would stifle participation. Quite the opposite occurs, even in shy classes. Following a reading assignment, I use that material as the basis for discussion. In a way, we all become terrible twos again and question everything. Each student must bring up a point from the reading that is worth knowing. Thus, the questioning begins, and the discussion goes in unpredictable directions, and turns lively. It opens the door for opportunities to question facts, validity of information, reliability of interpretation and sources of information, as they engage in the lesson that even facts can be based upon individual interpretation as "the eye of the beholder" comes into play, and that if we do not understand why something is "true" in a certain context, we cannot truly know that it is true. This type of discussion works well with the humanities, but it works equally well with the sciences and exact disciplines, for it encourages personalized learning and self-analysis. Why does photosynthesis occur and why under certain scenarios? What happens if even the smallest element is altered? What human need prompted the discovery and application of this information?

Quickly my students proudly and skillfully question and analyze everything, not realizing at first that they are verbally fashioning essays and scientific support for whatever opinions and facts they air. We force one another to question not only the source of information, but the purpose of that record as well. When all disci-

plines become interconnected, real life situations experienced by real people living and writing real live history, its chances of becoming internalized multiply. When information is de-compartmentalized, studied in the context of humanity and then put back together, it assumes new life and relevance. When learning is relevant, it is the product of creative thinking and not of the 'banking concept', and if we employ questioning as our greatest power tool, we may return the power of critical thinking to our students. We can actually teach creative thinking by not "teaching" by the books and providing answers, but by active questioning and authentic learning.

SCAFFOLDING: A CRITICAL THINKING TECHNIQUE

PAUL S. BAEDER
RENTON TECHNICAL COLLEGE

Critical thinking in my opinion must be an integral part of technical instruction. Knowledge for mere knowledge's sake is not where instruction should end. Meaningful learning has taken place when that knowledge is applied to a performance outcome which employs critical thinking, as in problem solving.

CLICK PHOTO TO SEE VIDEO

You may consider that critical thinking is only a cognitive domain of learning. In the prof-tech teaching world it is indeed that, but it also includes affective and kinesthetic (performance) attributes. Both of these ultimately lead to accurate psychomotor domain actions. I say this because, as I will explain, technical instruction in the service industry includes diagnostic performance and this relies on learned critical thinking process.

I teach critical thinking skills by the process of scaffolding. A concept is

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taught and as new concepts are introduced, the synthesis, analysis, and evaluation (in fact all of Bloom's higher taxonomies in the cognitive domain [Clark, 2009] of the previous learned concepts must be taken into consideration; one leads to the next. Because of this, the order of curricula must be precise. I teach students how to service major home appliance and refrigeration. A large part of this training involves diagnostic skill which is directly associated with this area of critical thinking and the use of knowledge accumulation, not just in volume but in purposeful organization and application.

I reinforce the learning of critical thinking by referring back to and associating the past learning with the next concept in the scaffolding process. I call this overlapping (I am not sure if anyone else has coined this term for this purpose). Whenever the opportunity arises, I reinforce the connection between the theory [previously] learned and the specific relationship to the current task. This illustrates the importance of previous learned material with the application context as instruction and hands-on learning escalate.

On the question of "are we dummying down college?", I think we would be heading in that direction on the technical side if we did not demand the critical thinking I have described here. When students leave training and head for the workforce, they are expected to be able to diagnose (again; analyze, synthesize, etc.) using all aspects of their learning experience. If we graduate them having never expected them to think critically or having never measured this ability, we do them an injustice and our training is inadequate.

Instructors should lay out their lessons, courses, and formative/summative assessments in a way that scaffolds the thinking process towards a logical functional result. Pure rote memorization of facts has its place but critical thinking, I believe, has more influence on one's technical success. If you diagnose wrong, the action taken will be wrong.

USE THE BRAIN FIRST

JEANETTE SMITH-PERRONE
TACOMA COMMUNITY COLLEGE

Developing a sound foundation of critical thinking skills is essential. as is how to apply these skills to new issues. At a minimum, we should provide the student with a sound set of skills for investigative questioning, organizing issues, isolating key symptoms and determining possible solutions. Then students must learn to test possible solutions and determine the best one. Effective communication skills and the ability to document the issue resolution process are other integral components that support the critical thinking process.

The average student will follow the path of least resistance. When teaching students in Information Technology, I have noticed that they tend to take the shortcuts provided by applications and operating system features. They will use the "Search" application rather than developing the skills they need to find information. This achieves the immediate goal but does not build a sound critical thinking foundation. They assume that all they need to know can be found via Google rather than learning the task.

> Windows 7 even further undermines the acquisition of critical thinking skills by including voice recognition

Windows 7 even further undermines the acquisition of critical thinking skills by including voice recognition. It can remove the need to learn writing and typing skills by allowing full hands free interaction. Through "Voice Recognition", Windows 7 decides the tool needed, not the student.

Yes, this is a wonderful accessibility

tool. However, these tools can undermine the effort to build critical thinking skills. We must show students that critical thinking requires brain cells and learning processes, not just software.

Learning is an effort on many levels to install skills within one's brain that can be carried with us everywhere and do not require additional augmentation to be accessed. Imagine the Internet server is down, IPhone service cannot be accessed in the server room, and you need to resolve the issue to restore the connection for the company. An iPhone APP or Google is not going to rescue you. Here is where those years in community college developing critical thinking skills will start you on the road to a resolution.

I was guiding students through the steps of subnetting a network. One student looked up from his worksheet and said, "This is real work"! Yes, learning critical thinking skills is work. It can be fun work but does take effort. The trend towards the path of least resistance will not develop sound critical thinking skills. So place the technology on hold and work with the brain.

NURSES AND THINKING

NANCY CUSICK RN, MSN/ED, CCRN
RENTON TECHNICAL COLLEGE,

"One of the most fundamental challenges most humans face in developing is that our life is dominated by a tendency to think and feel egocentrically," state Paul and Elder, who also says, "one of the most important things you can do for yourself is to begin the process of becoming a 'critic' of your thinking and lifelong learning" (p. 13).

Students can be taught to think about their thinking and recognize biases and past influences that are integrated into their thinking and daily lives thus limiting objectivity and the desire to explore alternative views. It is easier for one to think their beliefs are correct than it is to accept and analyze information and formulate an individual opinion.

I teach nursing, and I believe critical thinking skills are definitely worth teaching to students. Nurses are required to gather and synthesize information in order to determine a patient's status and anticipate his or her needs. They must be capable of determining which nursing interventions are going to benefit the patient. Nurses are required to formulate, implement, and assess the effectiveness of a pan of care in various and unique patient situations. In order to perform at this level, critical thinking skills are required.

I promote critical thinking skills in several ways. I developed a critical thinking Power Point Presentation that I deliver on the first day of class. I referenced books by Paul and Elder (2002) and Lipe and

> Nurses are required to gather and synthesize information in order to determine a patient's status and anticipate needs.

Beasley (2004). The 20-30 minute presentation discusses stages of thinking and strategies to navigate through the stages until critical thinking becomes a natural part of life.

Other ways I promote critical thinking in the classroom are encouraging questions from students, asking students questions during lectures, stressing the importance of obtaining and analyzing information from different sources, group activities, games, etc. In the clinical situation, we have discussions and assignments that require knowledge, care planning, and anticipating patient care situations.

If we are to provide our students with an optimal education and the best chance of success, we have an obligation to be critical thinkers and teach thinking skills to our students.

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CAN COMMUNITY COLLEGE STUDENTS THINK CRITICALLY? YES!

SARA ZALE
EDMONDS COMMUNITY COLLEGE

Most students believe English 102, a required, advanced composition course, is irrelevant to their education. After all, they have been writing essays nearly half their lives. As practice for the SATs, they learned to "spit out an essay in half an hour." They assume this course in rhetoric is merely another writing class about paragraphs, topic sentences and defending a thesis. It will be "a breeze," they think, despite my words about a focus on critical thinking. I capture their attention only when I say that most of what they know will probably not help them in this class.

Recent high school graduates and Running Start students enter my classroom with poor critical thinking skills. They are, on the other hand, masters of the five-paragraph essay, or an expanded version of it, based on a thesis and three supporting claims. These two facts are no coincidence. The pedagogy behind the teaching of the five-paragraph form impedes critical thinking.

David Rosenwasser and Jill Stephens consider the essay based on the five-paragraph format a "procrustean formula" that produces conformity and simplistic thinking rather than creative and complex thinking (147). A tripartite thesis predetermines the conclusions of the essay, often by dismissing the logic found in opposing arguments. Rosenwasser and Stephens offer an alternative approach: the evolving thesis format.

As I teach students tools about how to think critically in the writing of an essay, they gain esteem for what they

think. As the quarter progresses, they ask with adolescent umbrage, "Why weren't we taught to think before?" At the close of the quarter, they say, "Thank you. I've felt so valued for my ability to think." Can community college students be taught critical thinking? Absolutely.

Royce thinks that "around sophomore grade of high school would be a good time" to introduce students to the critical thinking involved in writing an evolving essay. Amanda agrees: "By high school, we should not only be evolving our thoughts but also evolving our writing style to use as a critical thinking tool." Andrea writes: "[When] using the "Evolving Thesis," the writer cannot be lazy [but] must be actively analyzing, looking at all evidence, and thinking outside of the box … the writer is allowed to think and maybe to find that the original idea was actually not as right as they thought."

What is critical thinking? As stated by Michael Scriven & Richard Paul, critical thinking is skill based. In my classroom,

critical thinking reflects specific abilities:

- to holistically analyze a concept, problem, or controversial issues
- to understand thinking as a journey, an evolving rather than static process
- to assess the credibility of an author and a source
- to test claims within a dialectic setting in which speakers / authors of the evidence use Socratic interaction to understand the issues. The students borrow a format adapted from Steve Allen's television show Meeting of Minds, where guests from all periods of history gather in conversation around a table. Within an essay, the dialogue consists of quotes, paraphrase, and warrants among credible authors of researched sources—of varying positions.
- to sustain negative capability, the belief that both a claim and its opposition can be true at the same time
- to realize that a claim is persuasive only to the degree that credible

sources from the opposing claim have been treated with respect and analyzed

- to apply the relationship of pathos and ethos, as well as logos, to a claim
- to ask questions of a variety of types, e.g. essential, hypothetical, probing, strategic, clarifying, about an issue from a variety of perspectives, e.g. social, economic, scientific, psychological, political
- to analyze the implications of a conclusion: what is the "big picture" of a world in which this conclusion is true, or how would the world have to change for this conclusion to be true? Who benefits? Who suffers?
- to utilize information from analysis of the arts, e.g. poetry, music, painting, photography, for greater understanding of an issue
- to analyze the process of evolution from an original claim to the final claim
- to appreciate that it is more important for the writer to end an essay with expanded understanding into the complexities of the controversy surrounding a claim than it is to be right about the original thesis
- to formulate at the end of the essay what steps still need taking and what questions need addressing

Do students succeed in mastering these skills? Some do. Other students master some of them. All, however, come to understand thinking in a way necessary to meet the challenges of participating effectively in the world.

Works Cited

Rosenwasser, David and Jill Stephens, eds. Writing Analytically with Readings. Thomson/Wadsworth Publishing/ Cengage Learning: Florence: KY, 2009.

SALARIES AND COMPENSATION AT COMMUNITY AND TECHNICAL COLLEGES STATEWIDE

FULL TIME FACULTY SALARIES 2009 2010

PART TIME FACULTY SALARIES 2008-2009

CHANCELLOR (CEO) AND PRESIDENT SALARIES 2009-2010

http://www.sbctc.ctc.edu/College/_f-salaries.aspx

FULL TIME FACULTY SALARIES
2009-2010
E

District	Average Salary	Average Starting Salary	Masters w/ 13 Yrs Experience	Highest Salary	Lowest Salary
Shoreline	$ 60,349	$ 54,774	$ 62,783	$ 64,784	$ 42,749
Highline	59,625	***	59,785	75,633	49,220
Bellevue	58,821	49,365	65,313	67,206	48,288
Renton	58,581	51,715	62,810	68,051	48,041
Bellingham	57,702	52,949	58,000	60,996	36,057
Yakima Valley	57,665	***	56,988	60,594	54,387
Seattle District	57,488	52,676	56,268	71,999	50,360
Green River	57,486	53,683	58,785	63,565	39,936
Columbia Basin	57,205	45,000	48,000	80,528	45,000
Skagit Valley	57,190	50,356	55,951	65,821	45,389
Tacoma	56,824	54,500	55,500	80,234	42,000
Edmonds	56,736	***	56,723	63,953	46,083
Lower Columbia	56,161	***	57,016	65,213	46,477
Wenatchee	56,089	50,871	63,073	64,429	42,737
Olympic	55,797	45,199	47,364	65,125	37,261
So. Puget Sound	55,457	47,521	55,528	70,393	47,521
Walla Walla	55,339	47,700	48,400	67,950	45,700
Cascadia	55,163	51,125	51,100	67,231	46,600
Big Bend	54,987	50,769	52,560	63,380	43,328
Centralia	54,830	47,313	47,313	66,844	42,000
Clark	54,764	45,399	55,854	67,016	43,932
Grays Harbor	53,935	***	46,804	60,897	35,379
Spokane District	53,743	44,730	48,739	69,433	44,730
Bates**	53,483	55,422	74,970	93,273	48,863
Everett	*53,364	47,701	52,173	64,973	47,018
Lake Washington	53,361	52,598	56,080	64,228	43,127
Pierce District	52,929	44,888	49,803	73,389	43,404
Clover Park**	52,444	51,412	73,807	73,807	47,825
Peninsula	51,322	***	53,958	64,517	43,382
Whatcom	49,737	***	44,102	65,638	35,833

* The average faculty salary reported in IPEDS in 2008-09 was too low due to data reporting errors. Corrections in reporting have been made and are reflected the 2009-10 average faculty salary.

** Majority of faculty on eleven/twelve month contracts and are included in the starting, highest and lowest salaries reported. However, the average salary includes only nine/ten month contracts.

*** No new full-time faculty hired in 2009-10

5-Year History of IPEDS Average Salaries	
FY 2009-10	$55,982
FY 2008-09	55,320
FY 2007-08	52,520
FY 2006-07	50,766
FY 2005-06	48,883

Top Quarter #1
Quarter #2
Quarter #3
Bottom Quarter #4

PART TIME FACULTY SALARIES
2008-2009
ANNUALIZED

college	part time ftef	Annualized pt salary
Bates	4	$54,971
Bellevue	239	36,849
Bellingham	23	23,969
Big Bend	35	32,043
Cascadia	48	33,131
Centralia	49	30,463
Clark	210	31,163
Clover Park	77	46,078
Columbia Basin	109	26,230
Edmonds	164	33,789
Everett	118	36,201
Grays Harbor	32	27,842
Green River	144	33,175
Highline	130	33,303
Lake Washington	77	49,219
Lower Columbia	49	30,137
Olympic	115	27,833
Peninsula	47	33,108
Pierce	145	29,982
Renton	57	39,195
Seattle	348	43,835
Shoreline	114	37,407
Skagit Valley	94	24,278
South Puget Sound	111	29,671
Spokane	230	32,285
Tacoma	118	37,274
Walla Walla	57	29,586
Wenatchee Valley	47	34,195
Whatcom	84	29,676
Yakima Valley	94	29,798
SYSTEM	3169	$34,287

These salaries are calculated representations of how much part-time faculty would earn at each district if they worked a full-time load at the district's part-time pay level. Annualized average part-time faculty salaries are displayed as reported by districts.

Prepared by the SBCTC Operating Budget Office December 24, 2009

CHANCELLOR (CEO) AND PRESIDENT SALARIES
2009-2010
E

College/District	Annualized Salary	Years of service	Reporting relationship
Bates	$130,000	0	Board
Bellevue	$165,900	21	Board
Bellingham	$163,200	2	Board
Big Bend	$155,075	15	Board
Cascadia	$172,259	5	Board
Centralia	$152,754	8	Board
Clark	$166,260	4	Board
Clover Park	$182,370	3	Board
Columbia Basin	$190,000	2	Board
Edmonds	$180,000	14	Board
Everett	$186,664	3	Board
Grays Harbor	$149,000	6	Board
Green River	$179,520	27	Board
Highline	$173,400	4	Board
Lake Washington	$173,400	2	Board
Lower Columbia	$165,240	12	Board
Olympic	$178,957	7	Board
Peninsula	$181,500	9	Board
Pierce-District 11	$186,612	5	Board
Pierce-Ft. Steilacoom	$148,223	4	CEO Multi-campus
Pierce-Puyallup	$148,223	5	CEO Multi-campus
Renton	$175,000	0	Board
Seattle-District	$215,000	1	Board
Seattle-Central	$165,694	V	CEO Multi-campus
Seattle-North	$165,694	V	CEO Multi-campus
Seattle-South	$165,694	V	CEO Multi-campus
Shoreline	$186,921	4	Board
Skagit Valley	$160,037	7	Board
South Puget Sound	$168,422	4	Board
Spokane-District 17	$183,215	9	Board
Spokane-SCC	$147,900	2	CEO Multi-campus
Spokane-SFCC	$147,900	9	CEO Multi-campus
Spokane-IEL**	$142,800	3	CEO Multi-campus
Tacoma	$187,500	13	Board
Walla Walla	$157,570	26	Board
Wenatchee Valley	$177,462	5	Board
Whatcom	$178,500	3	Board
Yakima Valley	$139,691	15	Board

**Institute for Extended Learning

2009-2010		2008-2009	
Average	$168,252	Average	$165,694
Median	$167,341	Median	$166,260

TUITION

Year		Resident	Non-resident
2010-11	Annual	3135	$8370
	Quarterly	1045	2790
2009-10	Annual	2925	8145
	Quarterly	975	2715
2008-09	Annual	2730	7944
	Quarterly	910	2648

Tuition Costs For Community and Technical College Students In Washington State

ACADEMIC YEAR	TUITION & FEES	MIN WAGE	HOURS TO EARN
		PER HR PPER HR	TUITION
2003-04	2,142	7.01	305.56
2002-03	1,983	6.90	287.39
2001-02	1,743	6.72	259.38
2000-01	1,641	6.50	252.46
1999-00	1,584	5.70	277.89
1998-99	1,515	5.15	294.17
1997-98	1,458	5.15	283.11

This year's tuition means a student has to work 366 hours in Washington State to pay resident Community and Tech college tuition and fees for one quarter. (8.55 per hour minimum wage-tuition and fees $3135).

FACULTY ASSOCIATION OF COMMUNITY & TECHNICAL COLLEGES

FACTC is our Network

Faculty at Community and Technical Colleges in Washington State must be active in the discussion of important community and technical college issues. We network with each other, with other higher education organizations, with legislators, and with state board staff and administration. If your community or technical college is not represented at FACTC, we invite you to join us.

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For information about FACTC, contact
Phillip N. Venditti.
Clover Park Technical College
4500 Steilacoom Blvd. SW
Lakewood, WA 98499
(253) 589-5595

Check out FACTC's website:
http://factc.org/