SPRING 1997 SABBATICAL LEAVE REPORT

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PROFESSOR OF ENGLISH

EXCERPTS FROM MY SABBATICAL LEAVE PROPOSAL

(submitted in November, 1996)

Proposal summary:

I propose to investigate the ways that basic English composition is taught at various colleges throughout the country and to use my findings to design a Parkland-specific English 101 instructional model that integrates composition into some of our transfer and career programs, so that students would write about topics relevant to their goals while enhancing their understanding of the academic discipline they're writing about. My research would involve the League for Innovation community colleges, Alverno College, Macomb Community College, the University of Illinois at Urbana, and the National Council of Teachers of English.

Rationale/Purpose for sabbatical:

I would like to explore ways in which a student can learn to write about other academic disciplines while satisfying Parkland's English 101 requirement. Parkland's English 101 has traditionally been structured so that students write essays and reports for various purposes and various audiences. This method of composition instruction has generally helped students understand that clear, competent writing is a skill that needs constant practice. However, generic English composition courses are essentially skills courses, with no core content of their own. I'm eager to find an alternative that would help students want to learn to write clearly and competently in order to succeed in their other college work.

From1982 till1984, I was part of a Writing Across the Curriculum experimental project (not a sabbatical leave project), teaching English 101 for students enrolled in a section of Biology 121 (Anatomy and Physiology I) and for students enrolled in a section of Communications 131 (Introduction to Advertising). All the students' English 101 writing concentrated on concepts in the content course and helped students understand them by writing essays explaining them. The Biology and Advertising instructors were exhilarated by this intensive student effort. Students were exhilarated because they were mastering difficult concepts by writing about them. I was exhilarated because students were eager to learn all I could teach them about clear, competent writing. The experiment, although successful, died because of insurmountable logistical problems. In retrospect, it's clear that the English classes should serve entire academic *programs*, not specific courses.

I remember the exhilaration, the collegiality, and the students' success, and I'd like to see what practicable methods might yield similar benefits. One option might be to offer English 101 as an "umbrella" course related to specific academic programs, such as English 101: Writing for Respiratory Care; English 101: Writing for Manufacturing Technology; English 101: Writing for Nursing; English 101: Writing for Engineering; English 101: Writing for Life Science.; English 101: Writing for Criminal Justice Education, etc. Students would, of course, continue to be able to choose the traditional English 101. If the umbrella approach to English 101 proves effective, we can then consider it for English 102.

The *goals* of our required freshman composition course would remain inviolable: to teach students the skills and knowledge necessary for competent, clear writing that demonstrates aptness of thought and observes the conventions of grammar, mechanics, punctuation, spelling, and sentence structure in a variety of genres for a variety of purposes for a variety of audiences. What I'm hoping to explore is a meaningful context for this teaching, so that we maximize the use of students' time to teach them writing that focuses on topics that are relevant and important to them. If my project results in practicable options under the English 101umbrella, students can choose an English class relevant to their academic interests and needs.

Because the course goals and basic composition components would remain unchanged, the umbrella option for English 101 would transfer to other institutions just as 101 does now, thus satisfying the requirements of the Illinois Articulation Initiative.

If, however, my research reveals that an option different from the umbrella approach is effective, I'll adapt the best of whatever I find to be the most successful.

Descrption of the activities that will accomplish the sabbatical objectives:

I would begin by examining English composition instructional models at League for Innovation colleges, at Alverno College, long a practitioner of college-wide writing, at the University of Illinois, which requires writing-intensive courses in disciplines other than English, and at Macomb Community College, which currently integrates English composition and technical courses. I would also seek the help of the National Council of Teachers of English to search for other institutions with non-traditional English composition models. I would then adapt the best of my findings to create a model that would work for Parkland. The next step would be to talk with the directors of academic programs throughout Parkland, interested faculty members, and, of course, the English faculty, and to create a model syllabus for an English 101 class grounded in two (or possibly three) specific career or transfer programs.

Description of plans for sharing the results or impact of sabbatical activities:

I would use gatherings at the Center for Excellence in Teaching and Learning, department meetings, and College-wide forums to share my results with Parkland's faculty. I would teach the pilot sections of program-specific English 101.

A sabbatical leave would energize me and allow me the luxury of time to explore ways of enhancing the teaching of composition, the discipline to which I have devoted my professional life.

English and other writing-requiring faculty would be energized by working together, and non-English faculty who don't currently assign writing will perhaps be encouraged to try. The umbrella English 101 course can use journal articles from the program areas as the foundation for class discussions and as models for writing. Participating faculty from various programs will be able to suggest writing assignments that they have never had time to integrate into their own courses. Students would be the most obvious beneficiaries because they will learn to write clearly and competently in areas vital to their educational and career interests. They will be learning to write while writing to learn.

In November, 1997, before my sabbatical leave began, I shared my project proposal with Parkland English colleagues and invited their suggestions. The responses were supportive; there were no suggestions. Also in November of 1997, I was invited to become a Pew Scholar (please see pages 31 and 32).

RESEARCH

- I began my research by gathering information from Internet descriptions of English composition courses at member institutions of the League for Innovation in the Community College:

Central Piedmont Community College, Charlotte, North Carolina
ENG 1504 English Composition I
Cuyahoga Community College, Cleveland, Ohio
English 101 College Composition
Dallas Community College District, Dallas, Texas
English 1301 Composition I
Delta College, University Center, Michigan
English 111 College Composition I
Foothill-DeAnza Community College District, Los Altos Hills, California
Foothill: ENG 1A Composition and Reading
DeAnza: EWRT 1A Composition and Reading
Johnson County Community College, Overland Park, Kansas
ENGL 121 Composition I
Kirkwood Community College, Cedar Rapids, Iowa
CC113T Composition I
Lane Community College, Eugene, Oregon
Wr 121 English Composition
Maricopa Community College District, Phoenix, Arizona
Mesa: ENG 101 Freshman English
Rio Salado: ENG 101 First Year Composition
Miami-Dade Community College District, Miami, Florida
ENC 1101 English Composition I
Monroe Community College, Rochester, New York
English 101 College Composition
Moraine Valley Community College, Palos Hills, Illinois
COM 101 Composition I
St. Louis Community College, St. Louis, Missouri
ENG 101 College Composition I
Santa Fe Community College, Gainesville, Florida
ENC 1101 College Composition
Seattle Community College District, Seattle, Washington
ENG 101 Composition
Sinclair Community College, Dayton, Ohio
ENG 111 English Composition I

I found no English composition class similar to the one I propose.

- I spoke at length with a former member of the Alverno College English faculty (now the Carnegie Teaching Academy Pew Scholars Project Director) and learned that all English faculty are involved with students' writing throughout the college. There is, however, no specific English composition course whose content is based on another discipline.

- The University of Illinois at Urbana requires students to complete Composition I by taking Rhetoric 105 or by pursuing various sequences of introductory writing courses, some taken with a tutorial. None of the Composition courses is based on a discipline other than rhetoric. University students must also complete Composition II, which is a writing-intensive course beyond basic composition; these courses are taught by instructors in other disciplines, not by instructors of basic composition.

- In 1996, I had heard that Macomb Community College in Michigan integrates English composition and technical courses, but I received no response to either my 1996 nor1997 letters asking for information.

- Friends and colleagues suggested other colleges where something different might be happening in English composition:

  Heartland College in Bloomington encourages students in English 102 to write research papers that explore their potential career fields, but the course is not based on another discipline's content. Heartland's English 101 is traditional.

  Capilano College in North Vancouver, British Columbia, provides workplace-writing courses for career programs, but those courses don't teach essay-writing, which is the thrust of Parkland's English 101.

- Remembering a questionnaire I received in 1995, I sought information about Washington State University's attempt to collect information about Writing Across the Curriculum programs throughout the country. Nothing is available.

- I requested the help of the National Council of Teachers of English to find other institutions with non-traditional English composition models. Gresa Kirsch of NCTE suggested that I search their publications for promising journal articles. I found nothing relevant to my proposal.

My research discovered no existing models for the English 101 I propose.

EVOLUTION OF THE PROJECT

Early in my sabbatical leave, I asked Parkland's Department Chairs for their help in identifying one transfer program and one career program whose faculty might be interested in working with me on a pilot section of program-specific English 101. Some Chairs, while eager to help, said they had no likely candidates because many programs offer their content-intensive courses in a student's second year while suggesting that English 101 and other general education courses be completed in a student's first year at Parkland. Chairs whose departments concentrate on transfer courses said that they had no programs as such, but a sequence of related courses.

Therefore, I changed the emphasis of my project to exploring the potential of a *discipline*-specific English 101, which would enhance students' understanding of a specific academic discipline. Rich Blazier, Chair of the Department of Natural Sciences, suggested that some members of the chemistry faculty might be eager to participate in a pilot section of English 101. I met with two chemistry faculty members, Tod Treat and Kristine Young, and what follows is the fruit of our discussions.

HIGHLIGHTS OF STRATEGY MEETINGS
Chemistry-specific SFW English 101 Pilot Section

Sally Wallace, Professor of English, with Rich Blazier, Chair of the Natural Sciences Department, Tod Treat, Assistant Professor of Chemistry, and Kris Young, Adjunct Instructor of Chemistry

Chemistry 104--Chemistry in Everyday Life--will be offered for the first time Spring semester, 1999, and those students are welcome to enroll for chemistry-specific English 101.

The best time for Chemistry 100, 101, 102, and 104 students to have an English 101 class would be at noon on Monday, Wednesday, and Friday. To accommodate all students wishing to take the chemistry-specific section of English 101, there will be no maximum enrollment for the class.

English 101, 019 will not teach scientific or technical writing; the focus of Parkland's English 101 is essay-writing.

English 101, 019 students who withdraw from Chemistry 100, 101, 102, or 104 must also withdraw from the chemistry-specific English class; however, students' withdrawal from English 101, 019 will not affect their enrollment in Chemistry 100, 101, 102, or 104.

A total of 655 students enrolled in ENG 101 in Spring 1998; 314 students enrolled in at least one chemistry class . There was an overlap of 32 students. Of these, 14 were enrolled in CHE 100, 14 in CHE 101, and 4 in CHE 102. Anticipating a similar mix, and with the addition of students from the new CHE 104 in Spring 1999, I need from the chemistry faculty writing assignments specific to the level of the chemistry students represented.

In Fall 1998, the Chemistry faculty in CHE 100, 101, 102, and 104 will suggest topics and audiences, so I can craft assignments appropriate for their students. The *chemistry faculty with whom I share students will be responsible for reading their students' essays and highlighting errors of chemical fact (and making sure the revised essays have corrected those errors). I will be happy to highlight English infelicities in writing assigned by my students' chemistry instructors.*

To design an effective English 101 section for Chemistry students, I need

- Suggestions (and enthusiasm) from all chemistry instructors, full- and part-time

- Specific journal articles that, in an ideal world, would be required reading for students in Chemistry 100, 101, 102, or 104

- General, 100-level key terms, names, and specialized vocabulary chemistry students should master (I'll incorporate these into weekly dictations)

- Suggestions for 5-minute in-class writing topics (at the general or Chemistry100 level)

- Concepts or procedures that seem especially difficult for students at the Chemistry 100, 101, 102, and 104 levels

- Suggestions for essay-writing topics and audiences at the Chemistry 100, 101, 102, and 104 levels:

  cause and effect analysis

  comparison/contrast

  definition

  description

  narration

  process analysis

  a specific journal article article for students at each level to summarize (an essential skill for English 102, the research-paper course)

- I also need a copy of the Chemistry 100, 101, 102, and 104 textbooks and a copy of any written material (lab modules, etc.) that is given to students.

From the 1998-99 *Parkland College Catalog*

ENG 101 Composition I 3 semester hours

Essay writing with attention to essay focus, development, and organization of a position, audience awareness, summary of others' arguments, and effective presentation. Credit is allowed for only one of the following: ENG 101-102 or ENG 106. Credit is not given for both ENG 101 and ESL 101. Prerequisite: ENG 099 with a grade of A or B; end-of-semester performance in ENG 098 or 099; or placement.

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CHE 100 Introduction to Chemistry 2 semester hours

Introduction to chemical concepts, including the metric system, moles, chemical composition, atomic structure, bonding, reactions, gases, acids and bases. Designed primarily for those with little or no high school chemistry who expect to continue with CHE 101-102. Prerequisite: recent high school algebra or completion of MAT 095 with a grade of C or higher.

CHE 101 Principles of Chemistry I 5 semester hours

Introduces new concepts and broadens those learned previously; chemical names, formulas, and equations; types of reactions; stoichiometry; thermochemistry; atomic structure and bonding; behavior of gases, liquids, and solids; properties of solutions; chemistry in environment; cation qualitative analysis. Prerequisite: recent high school chemistry or CHE 100 with a grade of C or higher.

CHE 102 Principles of Chemistry II 5 semester hours

Equilibrium reactions (gas, acid/base, solution); nuclear chemistry; electrochemistry; transition metal complexes; properties of metals and nonmetals; rates and mechanisms of reaction. Introduction to organic chemistry. Prerequisite: CHE 101 and MAT 098 or equivalent with a grade of C or higher.

CHE 104 Chemistry in Everyday Life 4 semester hours

Introduction to chemical concepts through application to common activities in everyday life and modern issues: electricity, energy, medicine, pollution, cleansers, food and nutrition, poisons, plastics, and cosmetics. Designed as a one-semester survey for nonscience majors. No prerequisites.

From the Spring 1999 *Parkland College Class Schedule*

ENG 101 019 12:00PM-12:50PM MWF L229 S Wallace

Note: OPEN ONLY TO STUDENTS ALSO ENROLLED IN CHE 100, CHE101, CHE 102, OR CHE 104 AT PARKLAND FOR SPRING 1999.

For the Counseling Staff

When you're meeting with students choosing their classes for Spring 1999, please recommend this class to English 101-ready students whose Spring semester schedule also includes Chemistry 100, 101, 102, or 104:

ENG 101 019 12:00PM-12:50PM MWF L229 S WALLACE

NOTE: OPEN ***ONLY*** TO STUDENTS ALSO ENROLLED IN CHE 100, CHE 101, CHE 102, OR CHE 104 AT PARKLAND FOR SPRING 1999

All of the essay-writing assignments will be about what students are learning in their chemistry classes, so students in section 019 of English 101 will develop their essay-writing skills and enhance their understanding of chemistry at the same time. They will be learning to write while writing to learn.

If you have questions, please call Sally Wallace at 2379.

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(High O, Silver!)

Draft of course information to be given to ENG 101, 019 students on January 11, 1999

PARKLAND COLLEGE

Spring 1999 Sally F. Wallace

English 101, section 019

noon - 12:50 Monday, Wednesday, and Friday L229

This is the Parkland Catalog's description of English 101--Composition I:

Essay writing with attention to essay focus, development, and organization of a position, audience awareness, summary of others' arguments, and effective presentation. Credit is allowed for only one of the following: ENG 101-102 or ENG 106. Credit is not given for both ENG 101 and ESL 101. Prerequisite: ENG 099 with a grade of A or B; end-of-semester performance in ENG 098 or 099; or placement.

CRUCIAL MATERIALS

Textbook: Diana Hacker, A Writer's Reference (third edition) $26.25

A loose-leaf 3-ring binder for our class materials and your copies of in-class writings

COURSE STRUCTURE

As a community of writers and learners, we will devote the entire semester to developing and sharpening essay-writing skills and enjoying constant practice with the conventions of standard written English to assure clarity. All of the essay-writing assignments will be about what you are learning in your chemistry class, so you will develop your essay-writing skills and enhance your understanding of chemistry at the same time. You will be learning to write while writing to learn.

ATTENDANCE

Your in-class writings serve many purposes, one of which is verification of your attendance. They will be an important part of most of our classes, and *they can't be made up if you're absent or late.* If an emergency arises that makes it impossible for you to come to class, please find out as soon as you can from a trusty classmate what you missed--assignments, notes, bits of fascination, etc. There are no excused absences.

If you find yourself falling behind or if you're having trouble with any facet of the class, let me know, and I'll try my very best to help. *Please don't get discouraged and disappear without letting me help you explore your options.*

HOW TO GET IN TOUCH WITH ME

My office (AKA The Batcave) is in C220; the phone number is 351-2379, and if I'm away from the office, you may leave a voice-mail message. My home phone number is 344-3760, and I'm always glad to hear from you in the early evening (before 8 o'clock) or on weekends if you have burning questions. My official office hours are from 11:00 till 11:50 A.M. Monday and Wednesday, but I'll be happy to talk with you at other times, too--just give me a call or come by the office. I'm on duty in the Writing Center from 11:00 till 12:50 on Tuesday and from 11:00 till 11:50 on Thursday; if I'm not already working with another client, I can talk with you then or make arrangements to see you. Here's my e-mail address, but I don't have access to it when I'm not at Parkland, so if you need some sort of response from me in the evening or on a weekend, please call me.

E-mail address: swallace@parkland.cc.il.us

GRADING

There are 1060 points possible for the course: each of 34* brief in-class writings is worth 5 points for a total of 170; completion of each of the 9 assigned ITL NovaNET lessons is worth 10 points for a total of 90; dictations are worth 100 total points; each of the 6 essay assignments is worth 100 points for a total of 600; the summary-writing assignment is worth 50 points; your official conference with me is worth 50 points. At the end of the semester, 1060-954 points = A; 953-848 = B; 847-742 = C; 741-636=D; fewer than 636 = F. Perhaps we'll decide to change the number and/or point value of some assignments; we'll discuss this when the semester is underway.

* We will actually have 36 in-class writings, so if illness or an emergency forces you to miss 2 classes, there will be no grade penalty. If, however, you attend every class, the extra 10 points for doing 36 in-class writings will be added to your final point total.

DUE DATES

Due dates for written assignments are absolute; unexcused lateness costs 10% per day (not counting Saturdays and Sundays). I'm willing to grant extensions, but you must apply for one at least a class period *before* an assignment's published due date. Your papers must be typed, and I'll need three copies of each. We'll discuss this when the semester is underway,

IMPORTANT INFORMATION

If you believe you have a disability for which you may need an academic accommodation (including special testing, auxiliary aids, non-traditional instructional formats), please inform me as soon as possible and/or contact one of the following for assistance:

Learning Disabilities--Evelyn Brown
Room X148, Extension 2587 (If you call from off campus, dial 351-2587)

Other Disabilities--Norm Lambert
Room A-250, Extension 2620 (If you call from off campus, dial 351-2620)

IMPORTANT INFORMATION THAT I HOPE WE WON'T NEED

In the unlikely event that you withdraw from your chemistry class, you must also withdraw from this chemistry-specific section of English 101. Please see me before you do anything drastic!

At midterm, Friday, March 5, I will be required to report any students who have stopped attending class, and I will officially withdraw them. However, after March 5, I cannot initiate the withdrawal process. Students who wish a W in the course must go to Admissions and withdraw before 5 p.m. Friday, April 30.

SFW

SAMPLE CHEMISTRY-SPECIFIC DICTATION ITEMS

1. It's too bad that there are too many theories to learn in one day.
2. You're going to have to bond with your lab partner.
3. The number of protons in the nucleus of an atom is its atomic number.
4. Don't look now, but there's a mole over there.
5. Who's able to tell the difference between an onion and an anion?
6. When you go to the laboratory, please get me some protons, electrons, and neutrons.
7. Whose periodic table is in the kitchen?
8. A solid has a fixed shape and volume; a gas has neither a fixed shape nor a fixed volume.
9. A liquid has a fixed volume, but it takes the shape of its container.
10. Your cousin thinks that an element has a long trunk and big ears.

SAMPLE IN-CLASS 5-MINUTE WRITING TOPICS
FOR ENGLISH 101, 019
(There will be 36 of these throughout the semester.)

- Please tell me why you chose this English 101 class.

- Please tell me about the best paper you've ever written. What class was it for? Did you write it in elementary school, middle school, high school, or college? Did you enjoy working on it? What made it so good?

- Please tell me about your worst science-class experience.

- Please tell me about a science mistake that taught you an important lesson.

- Please tell me about your first name--where did it come from? Why did your parents decide on it for you? Do you like it? Does it fit your personality?

- Please tell me
  1) How this class is going for you so far
  2) What you are learning
  3) Whether you think you're getting your money's worth
  4) What suggestions you have for improving it (and my teaching of it)

- Please tell me about your experience with the computer English lessons in the ITL. How did you like them? What (if anything) did you learn?

- Suppose you're shopping for a diamond ring for someone you love. When you're at the mall, you see this sign in the window of a jewelry store:

  DIMUNNDS RINGES
  HAFF OFFF

Would you buy your diamond ring there? Why or why not?

- Please write for five minutes about anything you'd like to write about.

- Please tell me what you're enjoying about your chemistry class and what, if anything, is giving you grief.

- What major concept in your chemistry class are you having trouble with? What would help?

- Look through your chemistry lab notebook and select an entry that you're very dissatisfied with. Tell me what bothers you about it.

- What is one item you own that you really should throw away but probably never will?

- What is one word or phrase that you wish people would say more often? Why?

- Look through your chemistry lab notebook and see whether you think the writing in your entries has improved. If so, please tell me in what areas you see improvement. If you don't notice dramatic improvement, please tell me what would help.

- Please tell me what you hope your life is like in 2009, both personally and professionally.

- If you could be any element *except* carbon, oxygen, or hydrogen, which would you choose? Why?

- What is the most beautiful chemistry-related word you know? Why is it beautiful to you?

- Please write detailed, step-by-step instructions for making a peanut-butter-and- jelly sandwich. Your readers are familiar with peanut butter, jelly, bread, and knives, but they are not familiar with screw-top jars, and they have never seen a sandwich.

FOR THE CHEMISTRY FACULTY FROM SALLY:

CREATING ASSIGNMENTS FOR SPECIFIC PATTERNS OF DEVELOPMENT IN ESSAYS

Some writing assignments demand relatively unsophisticated acquaintance with major course concepts and might be useful early in the semester, before students have enough information to assimilate and connect. Narration, description, and definition are good ways to get students started in the course and still enhance their understanding of the foundation material they'll be building upon for the rest of the course.

DEFINITION

A way to enhance students' understanding of specialized, technical terms is to ask for a paragraph that defines the term and gives everyday examples in everyday words that would help someone grasp the meaning of the term. Supplying a specific audience in the assignment is essential--a definition for an expert in the field (that would be you) would differ vastly from a definition for an eight-year-old.

DESCRIPTION

There are two basic types of description, the objective (impersonal) and the subjective (personal). It's important that your assignment specify which type you're requesting. An objective description is relatively technical and factual--the objective description of a laboratory, for example, would include its dimensions, number and size of work stations, types of equipment, etc., presented in a totally neutral way; the writer would not use "I." A subjective description would present the laboratory as it appears to the writer, filtered through his or her personal perceptions; the description might include such personal details as how the laboratory reminds him or her of Grandmother's kitchen, how the smell of the laboratory is nauseating, etc.

NARRATION

Narration recounts--tells about something. You are asking students to tell, in their own words, the background of an issue that's important in the course, how a course concept pertains to their lives and interests, how the world or society might be different without a certain course concept, etc. Narration appears in almost every kind of writing and is not confined only to assignments that ask specifically for it.

As the semester progresses, and students are building layer of knowledge upon layer of knowledge, they're ready for assignments that demand more analysis and informed judgment.

CAUSE AND EFFECT ANALYSIS

This sort of analysis seeks to explain why something happens (not how--that's process analysis). Students tend, at the zero-draft level, to oversimplify: "Insomnia is always caused by caffeine." It's wise to encourage them to list all of the possible causes for an event or situation, then to choose two or three that are worthy of exploration.

COMPARISON AND CONTRAST

Comparison implies similarity; contrast implies difference. Although this is a very effective nuts-and-bolts, no-nonsense device for testing students' understanding, it can also be creative and enjoyable for them to write.

PROCESS ANALYSIS

So that students are absolutely certain of the logical and chronological steps in how to do something or how something works, it's helpful to have them explain, step by step, a procedure that's important in your course. Since students are, in effect, being asked to give directions, it's crucial to specify the audience for whom they're analyzing the process.

SUGGESTIONS FROM THE CHEMISTRY FACULTY FOR ESSAY TOPICS
(collected and organized by Kris Young)

Note: The only section of CHE 104 for Spring 1999 was inadvertently scheduled for noon MWF, conflicting with ENG 101, 019, so essay assignments for that course are not represented here.

	CHE 100	CHE 101	CHE 102
Definition	isotope	the mole	catalyst
	atomic mass	resonance structures	buffer
	the mole	electronegativity	acids and bases
		kinetic and/or potential energy	
		partial pressures	
Description	objective and/or subjective: the scientific method	objective and/or subjective: the scientific method	objective: describe how a reaction proceeds to product by going over the activation energy
	objective: describe Rutherford' experiement	objective: significant figures	objective: buffers
	the periodic table	subjective: you are the valance electron of a sodium cation — describe your experience as a chloride ion draws near	objective: kinetics
	objective: describe a precipitation reaction	objective: describe characteristics of an ionic compound	objective: common ion effect
		objective: the periodic trends of atomic size, ionization energy, electronegativity etc	
		objective: kinetic molecular theory	
Narration	about the use of metric units in science rather than English units	development of the current explanation of the structure of the atom	how batteries work
	development of the current explanation of the structure of the atom	what quantum numbers are really all about	application and relevence of organic chemistry
		tell why hybridization of orbitals is important	
		use of a calorimeter	
Cause and Effect Analysis	why Rutherford saw alpha particles bounce directly backwards in his classic experiment	how the behavior of substances in water affects electrical conductivity	color of coordination compounds
	explain why a solid ionic material will not conduct electricity while a molten or dissolved one will	explain the dilution process	why any or all of the following affect kinetics: reactant concentration, changing temperature, changing pressure, adding catalysts
		how pressure affects volume, how temperature effects volume	why any or all of the following affect equilibrium: reactant concentration, changing temperature, changing pressure, adding catalysts
		induced dipoles	adding acids and bases to buffered solutions

	CHE 100	CHE 101	CHE 102
Comparison and Contrast	metric vs English systems	precision vs accuracy	fusion vs fission
	chemical vs physical change	metric vs English systems	penetrating powers of alpha, beta, and gamma particles
	mixture vs pure substances	ionic vs covalent bonding	
	the Bohr view of the atom vs the wave mechanical view of the atom	mixture vs pure substances	
	the three double displacement reactions: precipitation, acid-base, and gas-forming	s vs p vs d vs f orbitals	
		endothermic vs exothermic (include equations)	
Process Analysis	explain how to arrive at the correct number of significant figures for an addition (and/or multiplication) problem	explain how to write a net ionic equation	how to name organic compounds
	how you may break down a hetergeneous mixture into its component elements		how to determine the pH and pOH of acids and bases
	how to find an empirical formula		how to use the Henderson-Halleibalch equation
			how to find any of the following for transition metal coordination compounds: oxidation numbers, coordination numbers, ionization, shapes, ligands, colors, magnetism, equilibrium equations and solubility effects
Summary	naming ionic and covalent compounds	gas laws	signs of enthalpy, entropy, and Gibb's Free energy
			structure, nomenclature, and/or types of reactions in organic chemistry and/or biochemistry
Other			

SAMPLE DRAFT OF AN ESSAY ASSIGNMENT

English 101, 019 Spring 1999
Sally F. Wallace

DEFINITION ESSAY
Due Monday, February 1
100 points

PURPOSE

The purpose of this assignment is to give you the opportunity to demonstrate your understanding of an important chemical concept by writing a clear extended definition for a specific, uninformed audience

TOPIC

For Chemistry 100 students: define ***atomic mass***

For Chemistry 101 students: define ***the mole***

For Chemistry 102 students: define ***catalyst***

AUDIENCE

Your audience is a ten-year-old child of average intelligence, who knows nothing about chemistry.

FORMAT

Your essay should be typed and double spaced, with one-inch margins on the left and right. Please give your paper a title (not underlined or in quotation marks). Follow the heading and title format on page 50 of *A Writer's Reference*. On February 1, please hand in your practically-perfect-in-every-way paper *AND TWO IDENTICAL COPIES OF IT* (one for your chemistry instructor, one for me, and one to return to you) in your manila folder. Please hand in your first two drafts, too, so I can see how your writing evolved. Proofread your polished essay very, very carefully, and have someone read it to you. If you have questions or doubts, please visit me or the Writing Center.

EVALUATIVE CRITERIA

A successful extended-definition essay will follow the assignment's instructions. ***The essay will be chemically accurate*** and will include effective examples, analogies, and supporting details to explain the chemical concept to the specified audience, using a vocabulary appropriate to that audience. The essay will be written in complete, relevant sentences in logical order, with a smooth transition between paragraphs and a satisfying concluding sentence. Spelling, grammar, and punctuation, crucial components of clarity will be perfect.

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
Sally F. Wallace

CAUSE AND EFFECT ANALYSIS

PURPOSE (SFW)

TOPIC (suggested by chemistry faculty)

For Chemistry 100 students: Explain why a solid ionic material will not conduct electricity while a molten or dissolved one will.

For Chemistry 101 students: Explain how pressure and temperature affect volume.

For Chemistry 102 students: Explain why the following affect equilibrium: reactant concentration, changing temperature, changing pressure, adding catalysts

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
Sally F. Wallace

COMPARISON/CONTRAST

PURPOSE (SFW)

TOPIC (suggested by chemistry faculty)

For Chemistry 100 students: compare and contrast the Bohr view of the atom and the wave mechanical view of the atom

For Chemistry 101 students: compare and contrast ionic and covalent bonding

For Chemistry 102 students: compare and contrast fusion and fission

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
Sally F. Wallace

DESCRIPTION

PURPOSE (SFW)

TOPIC (suggested by chemistry faculty)

For Chemistry 100 students: describe Rutherord's experiment

For Chemistry 101 students: describe the characteristics of an ionic compound

For Chemistry 102 students: describe how reaction proceeds to product by going over (? sfw) the activation energy

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
Sally F. Wallace

NARRATION

PURPOSE (SFW)

TOPIC (suggested by chemistry faculty)

For Chemistry 100 students: Tell about the use of metric units rather than English units in science

For Chemistry 101 students: Tell what quantum numbers are really all about

For Chemistry 102 students: Tell about the application and relevance of organic chemistry

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
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PROCESS ANALYSIS

PURPOSE (SFW)

TOPIC (suggested by chemistry faculty)

For Chemistry 100 students: Explain how you may break a heterogeneous mixture down into its component elements

For Chemistry 101 students: Explain how to write a net ionic equation

For Chemistry 102 students: Explain how to use the Henderson-Hallenbalch equation

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

ESSAY-ASSIGNMENT FRAMEWORK TO BE DEVELOPED

English 101, 019 Spring 1999
Sally F. Wallace

SUMMARY

PURPOSE (SFW)

TOPIC (to be determined by chemistry faculty)

For Chemistry 100 students: Summarize a specific journal article

For Chemistry 101 students: Summarize a specific journal article

For Chemistry 102 students: Summarize a specific journal article

AUDIENCE (to be determined by chemistry faculty & SFW)

FORMAT (SFW)

EVALUATIVE CRITERIA (SFW)

POSSIBLE OUTCOMES OF THE CHEMISTRY-SPECIFIC ENGLISH CLASS

Relevant grade distributions for Spring semester 1998:

- Of 59 students enrolled in CHE 100, 44.1% (26 students) earned a final grade of C or higher; 32.2% (19 students) received a final grade of W (withdrawal from the course).

- Of 150 students enrolled in CHE 101, 56.7% (85 students) earned a final grade of C or higher; 24.7% (37 students) received a final grade of W.

- Of 93 students enrolled in CHE 102, 56.7% (82 students) earned a final grade of C or higher; 9.7% (9 students) received a final grade of W.

- Of 693 students enrolled in ENG 101, 59.6% (413 students) earned a final grade of C or higher; 23.4% (162 students) received a final grade of W.

At the end of Spring semester 1999, we can discern:

- Whether the withdrawal rate in English 101, 019 was lower than the average for other sections of English 101

- Whether the withdrawal rate in Chemistry 100 for students in English 101, 019 was lower than the average for other sections of Chemistry 100

- Whether the withdrawal rate in Chemistry 101 for students in English 101, 019 was lower than the average for other sections of Chemistry 101

- Whether the withdrawal rate in Chemistry 102 for students in English 101, 019 was lower than the average for other sections of Chemistry 102

- Whether students in English 101, 019 successfully completed Chemistry 100, 101, or 102

- Whether students in English 101, 019 earned higher grades in chemistry classes than Chemistry 100, 101, and 102 students who enrolled in a non-chemistry-specific section of English

- Whether students in English 101, 019 earned higher grades in English 101 than Chemistry 100, 101, and 102 students who enrolled in a non-chemistry-specific section of English

Other phenomena to observe:

Did the chemistry-specific English 101 seem to affect

- students' motivation to write drafts of essays?
- students' English-class participation?
- ***students' grasp of key concepts in chemistry?***
- students' successful completion of English 101?
- students' grasp of the concept of audience in writing?
- students' writing clarity?
- students' essay organization?
- students' grasp of grammar and mechanics?
- students' grasp of writing as a way of learning?

- other?

THE PEW SCHOLARS PROGRAM

In November of 1997, before my sabbatical leave began, I was invited to become a member of the 1998-99 pilot-year group of Pew Scholars, outstanding college and university teachers from across the country. The Pew Scholars National Fellowship Program is a project of the Carnegie Foundation for the Advancement of Teaching, and I was chosen because I was the Carnegie Foundation for the Advancement of Teaching's national 1996 Outstanding Community Colleges Professor of the Year. The pilot-year group of 15 represented four fields: chemistry, English, management, and psychology. I am the only full-time community college Pew Scholar in the pilot group and the only composition specialist among the four English professors.

The Carnegie Foundation publication describing the Pew Scholars Program states:

> The purpose of the Pew Scholars Program is to bring together outstanding faculty--122 of them over the five years of the project--committed to investigating and documenting significant issues and challenges in the teaching of their fields. Serving initially for one-year terms, the Pew Scholars spend two ten-day summer periods together as well as additional time during the academic year.
>
> The central work of the Pew Scholars is to create and disseminate examples of the scholarship of teaching and learning. Toward this end, each Scholar designs an investigative project aimed at deepening understanding of and practice related to an important issue in the teaching and learning of his or her field.
>
> Lee Shulman, Carnegie Foundation President, describes the scholarship of teaching as follows, looking first at the concept of scholarship and then at teaching itself:
>
> *For an activity to be designated as scholarship, it should manifest at least three key characteristics: it should be public, susceptible to critical review and evaluation, and accessible for exchange and use by other members of one's scholarly community. We thus observe with respect to all forms of scholarship that they are acts of mind or spirit that have been made public in some manner, have been subjected to peer review by members of one's intellectual or professional community, and can be cited, refuted, built-upon, and shared among members of that community. Scholarship properly communicated and critiqued serves as the building block for knowledge growth in a field. . . .*

In sum, a scholarship of teaching will entail a public account of some or all of the full act of teaching--vision, design, enactment, outcomes, and analysis--in a manner susceptible to critical review by the teacher's professional peers and amenable to productive employment in future work by members of that same community. Without such a scholarship, the profession of teaching cannot advance in ways that best serve our students' needs now and in the future.

PEW SCHOLAR ACTIVITIES

My Pew Scholar project is a continuation of my sabbatical project--designing a model for discipline-based English 101. In Palo Alto, California, from June 15 through June 26, 1998, I benefited immeasurably from discussions with my fellow Pew Scholars, especially Dr. Brian P. Coppola, Associate Professor in Chemistry at the University of Michigan, Dr. James W. Hovick, Director of Introductory Laboratories at the University of North Carolina at Charlotte, and Dr. Deborah Wiegand, Faculty Coordinator of Science Service Learning at the University of Washington.

When the Pew Scholars meet during the AAHE conference in San Diego January 22 and 23, 1999, I will have the chemistry-specific English 101 syllabus, writing assignments, and classroom activities ready to submit to peer review and evaluation by the Scholars and by several external peer reviewers suggested to me by the Carnegie Teaching Academy Project Director.

When the Pew Scholars assemble in Palo Alto from June 21 through July 1, 1999, I will have completed an analytical teaching portfolio for the chemistry-specific English 101 class and will have gathered assorted data about my students' learning in chemistry and in English composition.