

JEP REFLECTIVE QUESTIONS

CHEMISTRY 100: General Chemistry
Professor Parr
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These JEP Reflective Questions are designed to help you reflect upon your experiences as a member of a mini-team so that you can make the most of your community teaching experiences. Throughout the course of the semester, you will observe and participate in the daily activities of those you meet at your JEP site, and you will write about your experiences on a regular basis. These JEP Reflective Questions are designed to help you focus your observations and critically reflect on your experiences in relation to what you are learning about in your USC course.

REFLECTIVE QUESTIONS HINTS:

1. **Read the questions first.** Reading the question before you go to your JEP site is required in order to answer many RQs and having the questions on your mind will when at your site will help focus your observations and improve your response to all RQS.
2. **Write as soon as possible.** As soon as possible after leaving your site, sketch out your answer to that week's RQ. Even just taking a few notes with some difficult moments, things that surprised you or highlights will make writing later much easier and will provide the examples and observations you need to write an outstanding journal.
3. **Proof your work.** Like any college-level writing assignment, proof your work to make sure the writing is clear, error-free, and that you answer the question at hand.
4. **Read and respond to your PA's comments.** The questions are related to and build upon one other. So refer back to previous responses and to take seriously your PA's feedback each week and respond to the feedback by following the PAs suggestions.
5. **Be respectful.** Show your respect by being mindful of the limits of your experience and knowledge. Avoid generalizations and psychological explanations of behavior; in other words, do not make arguments that assume you know how someone else thinks or feels or use these assumptions to explain the way people act or their circumstances.
6. **Use examples.** Focus on writing detailed and concrete accounts of people, social settings and conversations (including direct quotes, when possible). Never make claims without evidence or examples!

YOUR ESSAY ASSIGNMENTS

The core parts of each assignment (which you need to focus on) are highlighted in **bold**. Use the additional questions to guide/supplement your answer. Please refer to the PA agreement you received in training for instructions regarding journal due dates and format requirements. *Note that some weeks require longer responses and are worth more points.*

ESSAY ONE - “Pre-reflection”

(1 page, 10 points, due: 9/26)

Please respond to one of the following prompts. Question #2 is for returning students only.

#1: Over the next eight-weeks you will be taking your college education outside of the walls of the University. Based on what you know about JEP and what you know about your site, what do you imagine your JEP experience will be like? Make sure to explain why you think what you think and use examples from your experiences at USC and in the community to explain yourself. Make your imagined vision of your JEP experience specific by addressing these two questions: **Ideally, what would you like to learn from your experiences in JEP? When you think about JEP, what makes you the most nervous or concerned?**

#2: Think back to your last experience in JEP and think about how you can take what you've learned about JEP, USC and the surrounding neighborhood (or the organization or school you worked with) and improve your experience this time around. **Now that you know something about JEP, what do you hope to learn from doing JEP again? What was the biggest obstacle you faced in your last JEP experience and how will you address that issue this time?** Make sure to use clear and detailed examples from your last JEP experience to explain your reasoning.

ESSAY TWO: Assessing your Plan

(1.5-2 pages, 15 points, due: 10/3)

Consider the plan for the semester that you will be working on shortly with your mini-team. **What are the major themes in chemistry that you plan to emphasize throughout the following weeks?** How are you going to put these themes together into a coherent mini-course? That is, explain how each week will build on the last and explain how you think students will be able to learn the larger lessons about chemistry that you want to develop in the mini-course. The most important themes are often the most difficult to address, so pick one major theme that you think will be particularly challenging to address over the coming weeks and explain **1) why you think it will be difficult; 2) why you think it is an important theme; and 3) what varying strategies you will use over the course of the next five weeks to make this theme meaningful for your students.**

EIGHT-WEEK PLAN DUE

(due: 10/10-10/14)

See your PA agreement for details.

ESSAY THREE – The Team

(1.5-2 pages, 15 points, due: 10/17)

Describe your impressions of your mini-course team. How well are you gelling as a team? What strengths do you think each member brings to the table? What weaknesses are you concerned about, if any? How do you think about your own role in the team? **That is, what strengths and weaknesses do you bring and what skills would you like to develop?**

ESSAY FOUR: Defining Chemistry

(2 pages, 20 points, due: 10/24)

Now that you know the students you are working with a little better and have more of an understanding of the challenges of your particular mini-course (and know more about chemistry), reflect on why the material you have learned so far in your USC class (about acids/bases, the three phases of matter, types of energy, atomic structure, etc.) is worth teaching to K-12 students. **To do this, start off with an explanation of how you would define chemistry for the students at your site and then explain how this definition conveys why chemistry is important.** Think broadly, for instance, why should K-12 students know about the chemistry, beyond learning for a test? **Look back to one specific example of a lesson plan that exceeded your expectations (for better or worse) and analyze how it succeeded and/or failed and if a larger lesson about the importance of thinking about science was effectively communicated.** Based on your experiences what do you think is the most effective way of making lessons meaningful to the students you are working with?

BLACKBOARD DISCUSSION: Topic To Be Announced

(2 posts to Blackboard, 10 points, due: 10/31-11/4)

Instructions and topic will be posted on Blackboard.

Discussion purpose: Your weekly journals consistently reveal a wide range of interesting insights and abilities that result from your coursework and service-learning assignments. Since students participate in JEP from more than 100 different courses each semester, and rarely do all students in a particular class choose to enroll in JEP, we lack the opportunity to bring you together on a regular basis to learn from one another. As a result, the educational benefits of participating in JEP are limited mostly to your individual or small group experiences. This forum is designed to counter the relative isolation of JEP's service-learning assignments by providing an opportunity for you to share your insights with your peers.

ESSAY FIVE: Eliminating Toxins and Education

(2 pages, 20 points, due: 11/7)

Go to the Environmental Protection Agency's "MyEnvironment" website and look up data about the community in which you are working: <http://www.epa.gov/myenvironment/>.

Enter the address of your site and explore the results. **Make sure to click on "view interactive map" and then use the "map contents" box in the upper right of the map to view different types of toxic emissions and risk factors.** Zoom out to get a larger picture of the region and to get some basis of comparison.

What kinds of pollutants and toxic chemicals are located near your JEP site? How many and what kinds of EPA-regulated industries are nearby? Where are they located? **In general, what surprised you about this data and what did you find interesting?**

What role do you think schools can have in making sure that children are not exposed to toxic chemicals that contribute to health problems? Think broadly about what you know about the toxins out there from EPA site, what you know about the school, students and teachers from your JEP experience, what you know about the chemistry of toxins from Chem 105 and how they move in different mediums (i.e. air, water, the ground, buildings, etc.), and what you know about developing lessons and teaching from your work with your mini-team. **What would you recommend that teachers, parents, administrators, and/or students do to eliminate exposure to toxins that affect children at the school? How could they organize?**

How might such work become part of chemistry education?

ESSAY SIX: Chemistry in K-16 and Beyond

(1.5-2 pages, 15 points, due: 11/14)

As you know very well by this time in the semester, a great deal of the learning and making sense of chemistry occurs in the lab. **Compare and contrast your experiences with chemistry (or science labs more generally) in K-12 to what you know about chemistry education at your JEP site.** What sort of labs and resources were available to you as a student? How did that experience prepare you for taking chemistry in college? How does your experience compare to what you have observed at your JEP site? What kinds of resources are available? **How well prepared (or not) do the students appear to be for college-level science course?** How about students who want to be pre-med or pursue science in some manner after college?

Finally, review the state standards for science education:

<http://www.cde.ca.gov/be/st/ss/documents/sciencestnd.pdf> for grades 4-6 (pages 20-30 in the document). **Do you think meeting these standards can prepare a student for a potential career in science?** Why or why not?

ESSAY SEVEN:

(2.5-3 pages, 25 points, due: 11/21)

In addition to potentially providing beneficial services for the communities in which it is implemented, service-learning is also credited with numerous benefits for the participating students. In particular:

- Young people gain access to the range of supports and opportunities (or developmental assets) they need to grow up healthy, caring, and responsible. One study of youth civic activism found that these settings had particular strength in cultivating youth and community involvement (Lewis-Charp et al., 2003).
- Increased sense of self-efficacy as young people learn that they can impact real social challenges, problems, and needs.
- Higher academic achievement and interest in furthering their education.
- Enhanced problem-solving skills, ability to work in teams, and planning abilities.
- Enhanced civic engagement attitudes, skills and behaviors. Many leaders in public service today speak about how they were nurtured, inspired, and shaped in early experiences in community service or volunteering.

(Sources: Chung, 1997; Coe-Regan et al, in press; Lewis-Charp et al., 2003; Tannenbaum, S. C., 2007; and YMCA of the USA, 2004)

Consider these benefits and reflect on the various ways in which your JEP experience has impacted you this semester. **Based on your personal experience, do you believe that the above-mentioned benefits can come from participating in a service-learning program? Which outcomes seem most likely for service-learning students? Which seem least likely? Are there other benefits that you have experienced that are not listed above?** In answering these questions, make sure to explain your reasoning and use specific examples from your service-learning assignment and your course.