

University of Dayton Assessment
Perspectives in Global Environmental Issues
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2003-2004

I. Introduction

Exit assessment for the 2003-2004 graduates enrolled in PGEI Cluster and assessment based on questionnaires and written work for CHM 200 and REL 375 for Fall 2003, GEO 208 and PHL 321 for Winter 2004.

II. **Analysis of Student Exit Questionnaire** (Instead of interviews or focus group)

A. Survey from 8 students out of a pool of 14. The 14 students were contacted by telephone and 2 emails and asked to respond to questions. Eight responded. Last year's attempt to do in-person interviews got a poor response. The approach used this year brought a better, 57% response. The responses were collated for each question.

B. Outcome 1: In their cluster courses and classes, students will build on the knowledge and skills developed in the humanities base.

Measure 3: (see collated answers)

Question 5: ...deepened understanding...what it means to be a responsible person.

• ***All eight of the respondents clearly and strongly stated that the cluster helped them in regard to being a more responsible person in regard to environmental issues. The specific ways included learning more about the issues, about the way we affect these issues and strengthening their sense of responsibility.***

Measure 4:

Question 4: ...build on humanities base.

• ***Five out of eight stated that the cluster experience built on the humanities base and cited credible examples ranging from "learned more about what it means to be human in relation to treatment of the environment" to "gets you more integrated into different cultures". The other three seemed unsure, likely because they did not understand the point of the humanities base.***

C. Outcome 2: Student will understand that to be an educated person is to be able to make connections across disciplines and so address fundamental questions in a manner that is more meaningful than is possible in any one discipline in isolation.

Measure 4:

Question 7: ...make connections across disciplines.

• ***Five of the eight responded in the positive, three did not think so. On of these stated that communication (major) doesn't really have much to do with the earth... a sad case at best. The five gave excellent examples of specific case studies that helped in this regard.***

D. Outcome 3: Students will be able to demonstrate that they understand and can use appropriate concepts, ideas or methods from multiple disciplines in relation to the cluster theme in courses they have taken.

Measure 4:

Question 6: ...understand the specific theme of your cluster.

• All eight respondents agreed that the cluster courses that they took helped them gain a clearer understanding of the issues and the nature of their impact on the earth. Five gave specific examples that dealt with themes of the cluster such as human impact on the environment, issues of global concern and four referred to values as part of the process of dealing with the issues.

E. Analysis relative to specific cluster goals.	Scale 1 to 4 (highest)
a. Examine natural processes-	average = 2.9 std dev 0.8
b. Realize human impact on environment and our ability to alter that impact	average = 3.6 std dev 0.5
c. View global scope of problems and distinguish between local and global	average = 3.8 std dev 0.5
d. Understand role of values in shaping human perspectives and assessing issues, choices and consequences	average = 3.3 std dev 0.7
e. Learn roles that variety of disciplines share in addressing environmental problems	average = 3.6 std dev 0.5

F. Conclusion (for the Exit Questionnaire)

• The above summary material gave me a sense that the cluster and its courses provided a quite positive experience overall for the students. For me, the written documentation of the questionnaire was far superior to the few interviews that I managed to have last year. Documenting the responses while asking questions did not work for me. Examining the material in quiet and focused work sessions provided a clearer picture overall. Analyzing the responses on the summary of the responses can help those engaged in assessment, including the cluster coordinator, in pinpointing areas of concern and targets for action for next year and on.

• The rating of the courses and associated activities the approximately 3.5 average for the rating in relation to the PGEI cluster outcomes is encouraging.

• For the responses regarding the value of the cluster goals, the strengths included: new and different viewpoints, learning of specific, concrete examples of environmental issues, contact with natural areas, discussion global nature of the issues, ability to apply one's major to the environmental issues. The less valuable responses were not as helpful but did not give a strong cause for concern.

III. Analysis of Student's Written Work

Final Assessment 2004-

A. Six of the eight who responded to the questions were submitted written work.

B. Outcome 1: Built on skills developed in the humanities base to show development in reading, writing and information literacy.

- *All six papers were well written, conveying their message clearly and effectively.*
- *Three of the six showed the results of reading and analyzing information carefully.*

C. And D. Outcomes 2 and 3: ...able to make connections across disciplines.

- *Five of the six papers made connections across disciplines. Three were particularly strong in this respect, analyzing environmental problems skillfully by referring to data from several disciplines*

E. See E. In section II. above, parts a. through e. (1- little of none to 4- rather fully)

	___ 1 ___	2 ___	3 ___	4 ___	5 ___	6 ___	Av	SD
<i>a. Examine natural processes</i>	4	2	2	4	1	1	2.3	1.4
<i>b. Realize human impact on environment; our ability to alter impact</i>	4	3	3	4	1	3	3.0	1.1
<i>c. View global scope of problems distinguish local and global ones</i>	3	4	4	4	2	2	3.2	1.0
<i>d. Understand role of values in shaping viewpoint & assessing issues, choices, consequences</i>	3	2	4	4	4	2	3.2	1.0
<i>e. Learn roles that variety of disciplines share in addressing environmental problems</i>	2	2	3	3	1	3	2.3	0.8

F. Conclusion (for the Analysis of the Written Work)

- *The overall analysis of the written work was in line with the students' responses concerning the goals and outcomes of the PGEI cluster. The appreciation of natural process and their role in our lives scored low in both cases. This area is one of emerging concern to environmentalists and would be a good target for action.*

Assessment of work syllabi from PGEI courses taught Fall 2003 and Winter 2004-

BIO 395 Geiger F 2003, W 2004 Lists course as part of PGEI and VTS clusters.

The syllabus mentions topics that touch on the outcomes listed for the PGEI cluster. Discussions deal with these outcomes.

CEE 390 Safferman F 2003 Does not list the course as part of PGEI cluster.

The course uses a science / technology approach to describe air, water and soil pollution, wastewater and drinking water treatment, water quality and conservation. The course addresses the relation of the science / technology to risk assessment, politics, human health and public policy.

CHM 200 Singer F 2003 Lists course is part of PGEI cluster.

The syllabus indicates coverage of environmental topics such as air and water pollution and toxic wastes and lists the outcomes that are listed as goals for the cluster. It appears from the topics in the syllabus that the main emphasis is on their chemistry; there is not much to suggest coverage of cross disciplinary aspects.

Eco 310 Sherer W 2004 Does not list the course as part of PGEI cluster.

The course objectives show that economic topics were presented in a way that encouraged students to use economic models, modes of thinking and analytical techniques to conceive both environmental problems and their solutions. Students also learned the language of economics as a tool for studying these social problems.

Geo 208 Farthing W 2004 Lists course as part of PGEI and VTS clusters.

The description of the course topics and approach in the syllabus clearly show that the course reaches across several disciplines in dealing with environmental issues and treats several of the PGEI outcomes.

Hst 342 Heitmann F 2003 Does not list the course as part of PGEI cluster.

The course involves an global approach analysis of the historical development of science and technology, and their ability to shape natural human environments. Study of the reciprocal relationship between history, culture, and environment teaches students how this relationship has reshaped the natural world in unexpected and sometimes disturbing ways.

Phi 321 Richards F 2003 Lists course as part of the PGEI and VTS clusters.

The course looks at several theories held by environmental ethicists, and how these theories guide people when making morally responsible decisions about the environment. The course also shows students how their lifestyles and technology place stress on the environment, and examines some possible implications of future technology like artificial intelligence and genetic engineering.

Phi 321 Fouke W 2004 Lists course as part of the PGEI and VTS clusters.

The course treats the environmental issues across disciplinary lines including historical, economic, biological, and ethical perspectives. Discussions and presentations deal with different world views and concern for human impact on the environment and how to mitigate the effects.

Pol 371 Inscho W 2004 Lists course as part of the PGEI and VTS clusters.

The course treats environmental issues from the perspectives of history, policy, economics, politics, ecology and sociology. Issues are viewed from a global perspective. The course fulfills the outcomes of the PGEI cluster.

Rel 365 Jablonski F 2003 Lists course as part of the PGEI cluster.

The syllabus indicates that topics and discussions cross disciplinary lines, namely biology, earth science, philosophy and politics and promotes outcomes dealing with global concerns, human influence on the environment and ethical dimensions.

Rel 375 Barnes F 2003 Lists course as part of the PGEI and VTS clusters.

The course studied the relationships between worldwide religious beliefs and modern science, especially with the use of texts from classic authors like Cicero, Augustine, and Galileo. Students also analyzed the implications for technological and environmental issues.

Rel 472 Thimmes W2004 Lists as part of PGEI and Cross Cultural clusters.

The topics of the readings and films clearly show that the course deals with environmental topics across disciplinary lines. These resources touch on the outcomes of the PGEI cluster.

Assessment of work from CHM 200 Fall 2003-

A. Thirty seven papers on an array of chemistry topics.

B. Outcome 1: Built on skills developed in the humanities base to show development in reading, writing and information literacy.

The writing is generally satisfactory. The themes are largely descriptive not analytical in nature.

C. And D. Outcomes 2 and 3: ...able to make connections across disciplines.

E. Analysis relative to specific cluster goals.

Deals with chemical aspects of natural processes, including the chemical aspects of water and air pollution, drinking water, sewage, nuclear and hazardous wastes. On the other hand, From the syllabus it is hard to determine to what extent topics treat of human impact on the environment.

b. Realize human impact on environment and our ability to alter that impact

c. View global scope of problems and distinguish between local and global problems

d. Understand role of values in shaping viewpoint & assessing issues, choices, consequences

e. Learn roles that variety of disciplines share in addressing environmental problems

Assessment of work from REL 375 Fall 2003-

A. Eleven papers, 9 on the topic of evolution, 2 on divine providence.

B. Outcome 1: Built on skills developed in the humanities base to show development in reading, writing and information literacy.

C. And D. Outcomes 2 and 3: ...able to make connections across disciplines.

E. Analysis relative to specific cluster goals.

a. Examine natural processes

b. Realize human impact on environment and our ability to alter that impact

c. View global scope of problems and distinguish between local and global problems

d. Understand role of values in shaping viewpoint & assessing issues, choices, consequences

e. Learn roles that variety of disciplines share in addressing environmental problems

Assessment of work from PHL 321 Winter 2004-

A. X.

B. Outcome 1: Built on skills developed in the humanities base to show development in reading, writing and information literacy.

C. And D. Outcomes 2 and 3: ...able to make connections across disciplines.

E. Analysis relative to specific cluster goals.

a. Examine natural processes

b. Realize human impact on environment and our ability to alter that impact

c. View global scope of problems and distinguish between local and global problems

d. Understand role of values in shaping viewpoint & assessing issues, choices, consequences

e. Learn roles that variety of disciplines share in addressing environmental problems

Assessment of work from GEO 208 Winter 2004-

A. X

B. Outcome 1: Built on skills developed in the humanities base to show development in reading, writing and information literacy.

C. And D. Outcomes 2 and 3: ...able to make connections across disciplines.

E. Analysis relative to specific cluster goals.

a. Examine natural processes

b. Realize human impact on environment and our ability to alter that impact

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