The Role of General Education in Developing Leadership for a Sustainable Future

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With thanks to Kathleen Kerr, Residence Life at UD, Debra Rowe, U.S. Partnership for Education for Sustainable Partnership, and leaders from Institute for Transforming Undergraduate Education at UD.
Delaware…
Dela where?
Sustainable Future:

“Meeting the needs of the present without compromising the ability of future generations to meet their own needs.”

Three Components of a Sustainable Future

- Flourishing Environment
- Social Justice
- Sustainable Society
- Strong Economy
Education for a Sustainable Future:

“enables people to develop the knowledge, values and skills to participate in decisions ..., that will improve the quality of life now without damaging the planet for the future.”
Characteristics Needed in College Graduates

High level of communication skills.
Ability to define problems, gather and evaluate information, develop solutions.
Team skills -- ability to work with others.
Ability to use all of the above to address problems in a complex real-world setting.

Quality Assurance in Undergraduate Education (1994)
Wingspread Conference, ECS, Boulder, CO.
UD’s Ten Goals of General Education

Attain effective skills in oral and written communication, quantitative reasoning, and the use of information technology.

Learn to think critically to solve problems.

Be able to work and learn both independently and collaboratively.

Engage questions of ethics and recognize responsibilities to self, community, and society at large.

Understand the diverse ways of thinking that underlie the search for knowledge in the arts, humanities, sciences and social sciences.
UD’s Ten Goals of General Education

Develop the intellectual curiosity, confidence, and engagement that will lead to lifelong learning.

Develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom.

Expand understanding and appreciation of human creativity and diverse forms of aesthetic and intellectual expression.

Understand the foundations of United States society including the significance of its cultural diversity.

Develop an international perspective in order to live and work effectively in an increasingly global society.
Obligation of Higher Education to Develop Citizens and Leaders

“College and university communities are in the special position of deciding what responsible citizenship requires in a democratic society and the skills that are required for it… Colleges and universities can help students to refine and expand their notions of citizenship …, by providing opportunities for experiential learning, and in creating a campus community where all constituencies can think together about their shared lives...

It is about finding ways to solve the problems that face the world we share.”

From: “Renewing Civic Capacity: Preparing College Students for Service and Citizenship” by Suzanne W Morse
What Is PBL?

“The principal idea behind PBL is that the starting point for learning should be a problem, a query, or a puzzle that the learner wishes to solve.”

What Is PBL?

“...careful inspection of methods which are permanently successful in formal education...will reveal that they ... give pupils something to do, not something to learn; and if the doing is of such a nature as to demand thinking ...; learning naturally results.”

John Dewey (1916)
What are the Common Features of PBL?

Learning is initiated by a problem.
Problems are based on complex, real-world situations.
All information needed to solve problem is not given initially.
Students identify, find, and use appropriate resources.
Students work in permanent groups.
Learning is active, integrated, cumulative, and connected.
PBL: The Process

Resolution of Problem; (How did we do?)
  - Integrate new Information;
  - Refine questions
  - Reconvene, report on research;
  - Research questions; summarize; analyze findings

Next stage of the problem

Presentation of Problem
  - Organize ideas and prior knowledge (What do we know?)
  - Pose questions (What do we need to know?)
  - Assign responsibility for questions; discuss resources
A Typical Day in a PBL Course
Selected Goals of General Education

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Develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom.
Comparison of Teacher-Centered and Learner-Centered Paradigms

From Figure 1-2 in Huba and Freed, Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning, 2000
Comparison of Paradigms

Teacher-Centered
Knowledge is transmitted from professor to students, who passively receive information.

Learner-Centered
Students construct knowledge by gathering & synthesizing information; integrating it with the general skills of inquiry, communication, critical thinking, and problem solving.
Comparison of Paradigms

Teacher-Centered

Emphasis is on acquisition of knowledge outside the context in which it will be used.

Learner-Centered

Emphasis is on using and communicating knowledge effectively to address enduring and emerging issues and problems in real-life contexts.
Comparison of Paradigms

Teacher-Centered
Instructor’s role is to be primary information giver and primary evaluator.

Learner-Centered
Instructor’s role is to coach and facilitate. Instructor and students evaluate learning together.
Comparison of Paradigms

Teacher-Centered

Assessment is used to monitor learning.
Teaching and assessing are separate.

Learner-Centered

Assessment is used to promote and diagnose learning.
Teaching and assessing are intertwined.
Comparison of Paradigms

Teacher-Centered
Focus is on a single discipline.
Emphasis is on right answers.

Learner-Centered
Approach is compatible with interdisciplinary investigation.
Emphasis is on generating better questions and learning from errors.
Comparison of Paradigms

Teacher-Centered
Culture is competitive and individualistic. Only students are viewed as learners.

Learner-Centered
Culture is cooperative, collaborative, and supportive. Teachers and students learn together.
Outcomes?

Moving away from:

Are students getting the right answer?
Outcomes?

Moving to:

Can students demonstrate the qualities that we value in educated persons, the qualities we expect of graduates?

Can students gather and evaluate new information, think critically, reason effectively, and solve problems?
Outcomes?

Moving to:

Can students communicate clearly, drawing upon evidence to provide a basis for argumentation?

Do students’ decisions and judgments reflect understanding of universal truths/concepts in humanities, arts, etc.
Outcomes?

Moving to:

Can students work respectfully and productively with others?

Do students have self-regulating qualities like persistence and time management that will help them reach long-term goals?
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