

The World Bank Scenario - A Problem-Based Learning Activity in Human Geography and Environmental Science

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Abstract

Problem-Based Learning (PBL) is a powerful and exciting form of small-group, self-directed, and self-assessed learning that can be used in virtually any discipline. This case study details the use of the World Bank as the scenario for a PBL lesson that has been developed for use in Human Geography and Environmental Science and could be adapted for use in many other sub-disciplines. The lesson requires multiple class periods and work outside of the classroom for acquisition of critical knowledge and development of team participation skills to address a real world issue.

Introduction to Context

The World Bank provides the perfect scenario for a Problem-Based Learning Activity that has been adapted for use in both Human Geography and Biology Environmental Science courses. As required by PBL, rather than traditional problem solving, the lesson requires acquisition of critical knowledge, problem solving proficiency, self-directed learning strategies, and team participation skills.

The problem initially posed to the student is to choose a country that would be best suited for funding by the World Bank. In Human Geography this PBL is part of a lesson on the topic of politics as integrated with economic spatial activities and in the Environmental Science course the PBL is integrated with studies of economic development and sustainability.

In each course the students are preliminarily challenged with the problem of choosing the most appropriate country to receive a World Bank loan. The students must learn about the World Bank and its operations and generate a list of questions that should be asked of the country. Once the list of questions is generated, the students use the CIA Fact book and other student-identified resources to learn about countries and ultimately choose one country that best fits the list of questions generated.

Once a country is chosen by the individual student, classroom groups are formed representing the Project Research Division of the World Bank and each student has an opportunity to put forth his/her rationale for country choice. Each student defends his/her choice of questions and argues the strength and potential success of his/her chosen country. The team must work together, however, to ultimately narrow the individual choices down to one country. That country, along with supporting documents that defend and support the group choice, is presented to the other groups in the class and to the instructor in the form of a written report.

The problem drives the learning in both class settings and the student must learn new knowledge before they can address the problem. The role of the facilitator/instructor is to set the preliminary agenda for learning sessions and to ensure student information is accurate. What differs in the Geography as against the Environmental Science problem is the spatially-oriented criteria for selection of the most promising country. This lesson could be modified and adapted for use in any geography, environmental science, or related course at both the secondary and university-level.

Goals and Objectives

- 1) To identify the role of the World Bank in economic development;
- 2) To understand the spatial relationship between economics, politics, and the natural environment;
- 3) To assess criteria related to economic viability, infrastructure, and their relationship to sustainability in developing nations;
- 4) To identify thought processes and criteria used in distribution of World Bank monies.

Student Learning Processes

- 1) Identification of relevant resources and information;
- 2) Development of criteria based on new information;
- 3) Justification of loan question criteria;
- 4) Group consensus and group building;
- 5) Critical thinking;
- 6) Decision making process.

Lesson Sample

The World Bank is an internationally run financial organisation that attempts to stimulate the economic progress of less-developed countries. The intent is to use wealth from the developed countries to provide monetary assistance to developing but impoverished countries. The capital, in theory, allows countries to develop the infrastructure necessary for more rapid economic development (railroads, roads, port facilities, funds for agriculture, industrial development and so on). The Bank charges minimal interest and requires that: (1) the money must be used for economic improvement, (2) the money is loaned only for specific projects, (3) the beliefs, politics, alliances, and/or degree of internal liberty of a country should not be factors in the lending decision, and (4) the country should be relatively stable.

Scenario

It is the first week of work for a newly formed group of aides to the Project Research Division. You are to provide insight on the decision making process of lending money to a developing state.



Figure 1. Working through the PBL exercise

Assignment

Part One. Your first task as a member of the team is to individually generate a set of questions that you believe may be important for the World Bank to consider in evaluating the stability of a newly independent country prior to lending money. Using the terms associated with the reading and lecture for this section, list the questions that you believe should be considered, keeping in mind that your questions should reflect issues related to economic development, stability, and long-term improvement of the countries' sustainable infrastructure. You should generate a list of

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ten questions that you believe are the most important from a spatial perspective. In parenthesis after each question, justify why this question is valid and important in loan consideration.

Part Two. To further apply critical appraisal, go to the CIA Fact book online and locate a developing country that you believe would be a good risk for the World Bank based on the questions for part one that you deemed important. To what country would you recommend a loan? Why? What specific attributes does the country possess that may make it worthy of consideration? This part should be a written statement, explanation, and summary of the country you deem the best risk for the World Bank. This preliminary written report along with your questions must be provided to your fellow team members prior to your first group meeting.

Part Three. The group must develop a list of ten questions from the individual lists you have made for lending criteria. Again justify each question and describe any resources used in making your list (textbook, internet, journals etc.). The group must decide to which country a loan will be given. A consensus (at least 2/3 majority) must be achieved and a justification for the loan should be written. To accomplish these tasks you must each take on an additional role new role: (1) chair- runs the group, sets the agenda, and co-ordinates communication outside class, (2) recorder- takes minutes of the meeting, (3) archivist- tracks down and provides reference materials and keeps records of such, (4) writer- responsible for drafting final report, (5) editor- responsible for editing final draft, and (6) group co-ordinator- provides assistance in all areas.

You are to hand in both your individual and group work in written form. In addition each group will present findings and recommendations to the rest of the class. One half of your grade will be based on your individual efforts and one half on your group work. In addition, groups will convene for a final meeting after listening to oral presentations to reflect and assess learning from this PBL. A brief written assessment summary must be submitted to the instructor/facilitator.

Thoughts and Reflections

The problem used in this scenario requires some initial discussion of the concepts of economic development, sustainability, and economic spatial activities. Typically one class period is devoted to providing background information to the students and to describing the process to be undertaken. Individual criteria-question development and country choice is completed outside of class. A second class period is devoted to forming groups and the discussion of individual findings. Groups are encouraged to meet outside of formal class meeting times so that by the third class period final discussions result and conclusions can be generated so that final reports may be presented.

The role of the instructor as the facilitator is to provide the background information necessary related to the broader scope of the problem, to answer questions, and guide the students toward appropriate resources. In most PBL type learning activities, allowing students to pursue inappropriate avenues is allowed to a certain extent. Making mistakes, and realizing these errors often reinforces the correct information. Additionally, personal biases often are exposed in group discussions, therefore the facilitator must encourage students to stay on track with the task. Typically, group sizes are kept small (no more than 6 students) in order to facilitate discussion and the group process. A tutor/teacher for each group was not possible for the authors because of lack of personnel resources.

The student response to this activity has been positive. Some students who are less familiar with PBL initially think they are being given social time. This is easily dispelled when the student realises the task being asked of them is not as simple as it first seems and does have real-life

implications. Although most PBL poses the problem before learning begins, we have found our modification, presented here, tends to motivate the students just as well.

Facilitation of the process is encouraged by a fairly critical first review of the initial questions posed by students. It is crucial to make the students justify their questions and thought processes. This is enhanced in the student group setting through peer pressure and a desire on the students' part to not seem ignorant in front of their peers. Student response to the PBL scenario has been invigorating in that the students see the real world ramifications of the problem and very often go beyond what is initially asked of them. They take ownership of the problem very quickly. It is also apparent that increased student interest level instils a greater retention of formal didactic pedagogy that typically follows the PBL activity.

Unfortunately, the activity can be time consuming and can take on a life of its own as students raise questions that lead to more questions. It is important for the facilitator to keep the students focused and on track. Assessment of the PBL is, of course, subjective. Criteria for assessment include addressing how well the students approached the goals and objectives. Students participating in PBL did not score any higher on standard tests but their self-reported interest level and confidence definitely improved.

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Planet Register of Interest



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