Ethnobotany Research Paper

Purpose
To critically research information on Ethnobotany issues, and create an informational report to the class.

Overview
This section will require students to investigate different sources (i.e. books, journals, video, and internet) for constructing a presentable written and oral report.

Time
1 hour session for an introduction and discussion of Ethnobotany, then assign the development of their own research writing piece as a homework assignment, and optional 1-hour session to orally present the written findings.

Key Concepts
Ethnobotany is the study of how people of a particular culture and region make of use of indigenous plants. Ethnobotanists explore how plants are used for such things as food, shelter, medicine, clothing, hunting, and religious ceremonies. Ethnobotany has its roots in botany, the study of plants.

Skills
This section in its entirety can help in presentation and writing as well as critical reading and thinking. Finally, written and verbal communications are stressed.

Materials
Handouts on ethnobotany are the only materials needed. Access to word processing software and internet would be useful for the research and the production of the writing and essay products. If oral presentations are required, computer access to presentation software such as PowerPoint would be useful, but not essential since transparencies could be used to illustrate the speaking points.

Background
There are numerous definitions of ethnobotany. In the most widely employed and simplest definition, ethnobotany is the study of the knowledge and the use of plants in primitive societies in the past and present. Ethnobotany is certainly not new. The earliest humans must have been nascent ethnobotanists. It began when humans first classified plants out of necessity: those of little or no utility; those which were useful in many practical ways; those alleviating pain or otherwise ameliorating illness; and those that may have killed outright.
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There are approximately 300,000 species of higher plants in the world today\(^1\). Over 30\% of which, it has been estimated have been used in plant based remedies at some time.\(^2\)

Today millions of traditional peoples still use plants as sources of food, clothing, shelter, fuel and medicine. This knowledge has been gained by trial and error over the centuries and is priceless and irreplaceable.

Native peoples can tell you much about their local plants; for instance whether they are poisonous, useful for curing stomach upsets, good for roofing material (i.e. waterproof), or good fuels. They also know how to 'prepare' the plant for these uses, when and how to harvest it and which parts, and also when and where it grows. This invaluable knowledge is being lost by the destruction of these natural ecosystems, and the acculturation of these traditional peoples.


**Procedure**

**Literature and cultural research**

**What to do:**

1. Have students work in pairs or individually to research plants that have already been identified as having medicinal or cultural/historical value around the world. Each student or group should select a specific culture and/or region of the world to study.

2. Each student or group should try to focus on 1 particular plant species in their research area and to try to get 10-15 research sources on this particular plant species. Students may be able to find a local cultural resource for information as well, i.e. Native Americans, local ethnic groups, family and community elders. There is often reluctance on the part of young people to validate their ethnicity, so be persistent in looking for these connections.

3. Each research paper should include the following information:
   - Common name of plant
   - Scientific name of plant (Family, Genus, species)
   - Description of medicinal activity or cultural/historical value
   - Current issues associated with production or distribution or consumption
   - Impacts on environment at local, national, and global levels
   - Impacts on human health in terms of value, cost, and affectivity
   - Reference / source of info.
Students can make oral presentations as individuals or in groups concerning their research, class time permitting. Students should be encouraged to bring in relevant plant products, plant examples, and pictures as well as other cultural objects (such as art and music) for the group they are studying.

**Additional Activities**

Students can be asked about ethnobotany in their lives, i.e. uses of plants in their culture during their childhood by relatives and members of their culture. Similar research projects can be performed concerning their own ethnobotany examples.

Students can be encouraged to interview elders in their families or community concerning the use of plants in their culture, and report back to the class. Again, similar research projects can be performed concerning these ethnobotany examples.

**Useful Websites:**


Native American Ethnobotany: [http://www.umd.umich.edu/cgi-bin/herb/](http://www.umd.umich.edu/cgi-bin/herb/)

Ethnobotanical Leaflets: [http://www.siu.edu/~ebl/](http://www.siu.edu/~ebl/)

**Follow up Activities**

Students can be encouraged to visit local resources on ethnobotany and related issues such as botanical gardens, arboretum, botanicas, and even natural food stores and herbalists.

Visits to the class by herbalists, botanists, naturalpath physicians, and similar professionals can be illustrations of the science and professions involved in ethnobotany.

**Student Assessment**

Give the following research writing and presenting components to each student as a guide to their ethnobotany research products:

- Decide the specific culture and/or region where the ethnobotany research will be focused
- Research the specific area chosen for specific use of plants in daily life
- Select 1 specific plant species and identify the:
  - Common name of plant
  - Scientific name of plant (Family, Genus, species)
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- Description of medicinal activity or cultural/historical value
- Current issues associated with production or distribution or consumption
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- Reference / source of info.

- Briefly summarize these facts, as well as sources of information, in an essay (length to be specified by the teacher)
- If possible, find examples of products made from this plant or even the plant itself, as well as pictures of the plant and/or examples of how this plant is used in this culture and/or region, to illustrate the essay
- If requested by the teacher, create an oral presentation concerning this plant and culture and/or region (again use of pictures, props, music, etc are highly encouraged)
- Practice and keep their presentation within the time allotted
- If performed in groups, each group member should take part in the Presentation, even if it is just to read or explain one piece of the presentation
- Each group member should answer at least one question from the audience at the end of their Group presentation.

Assign points for the following components of the critical writing products:
- Were the facts correctly identified?
- Were these facts correctly summarized?
- Were there sources of information presented?
- Was additional detailed enrichment presented in the essay (and oral presentation if relevant) such as pictures, props, music, examples of the plant, etc
- Were proper science terms used?
- If performed in groups, was each group member actively involved in the presentation?
- Could the group members answer questions from the audience about the facts?