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TEACHING NATURAL RESOURCES POLICY THROUGH CASE STUDIES, AUTHENTIC ASSESSMENT AND THE INTERNET

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ABSTRACT: The teaching of natural resources and environmental policy does not lend itself well to the traditional methods of teaching found in the field of natural resources. Instead, a teaching triangle composed of methods from the social sciences and the application of technology allow for a more complete and thorough understanding of the subject by the student. Use of case studies forms the basis of this teaching method, removing the abstractness of the subject and showing the actual field application of what is taught. Authentic assessment or reliable evaluation methods expand the students thinking on the subject while giving the instructor a solid indicator of student learning. Finally, the Internet and the use of a listserve provide for information access and instructor-student interaction not possible before.

INTRODUCTION

People are drawn to the natural resources professions because they believe it is here that they can spend time in the great outdoors, helping preserve nature's beauty while making a livable wage. Yet, ask anyone who has been in the profession for more then five years what they spend most of their time doing. They are Likely to answer that they spend the built of their time dealing with government policy and regulation. Some have even gone so far as to saSI they should have completed degrees in political science, public administration, policy or government instead of a natural resources field. The challenge then becomes how do we educate tomorrow's natural resource manager, someone who Likely wants nothing to do with government regulation and policy, about these same subjects, subjects critical to their professional growth. The answer is through the use of a teaching triangle composed of case studies, non-traditional teaching methods and modern technol~gy as a complimentary resource.

USE OF CASE STUDIES

The use of case studies is a key component in teaching policy to future natural resource professionals, something that is broadly used in the social sciences. Usually, natural resources students do not have the general political science, public administration, government and policy background that is needed to work with environmental and natural resources policy in the theoretical sense, nor is the theoretical application of that knowledge of much use. What is of use is an explanation of the basics of these fields; then specifics, on how these can be practically applied. The use of case studies allows the students to see how the concepts of policy and public administration are components of natural resources policy and why it is important for them to have a basic understanding of these fields. It also allows for a higher level of interaction between the student and the instructor; not so much lecturing, teaching and grading, but leading, mentoring, constructive criticism and evaluation.

RELIABLE EVALUATION OF STUDENT LEARNING

The second key to this triangle is the use of what would be considered nontraditional teaching methods in the field of natural resources. With few exceptions, the field of natural resources is, by its very nature, a predominately quantitative type field. Natural resources policy is one of those exceptions. Quantitative fields are generally thought to be best taught by using lecture and labs, then testing for understanding and memorization of the concepts and facts presented. Policy, being a qualitative field, does not adhere to this method. It is possible to test a basic understanding of the concepts presented, becomes much more difficult to check and see if the student understands how these concepts interact and if they can express this relationship. So instead of

traditional tests, other methods should be used such as papers, group projects and journals to assess how well the students are understanding the material and bringing it together. Though this might require more time and effort on the part of the instructor, it is worth it in that it allows for a better understanding of the material by the student.

USE OF THE INTERNET

The third leg of this triangle is the use of additional resources outside the classroom as an additional teaching opportunity. In the past, the sources for information and teaching outside of the policy classroom generally has been confined to books and articles. There are other opportunities such as field trips and internships, but those are extremely limited. Technology, specifically the Internet, and the Fncreased level of computer sophistication among students has provided for a new and exciting way to reach students outside of the classroom. By the very nature of the subject, there isn't enough time in one semester to truly give the student all of the information they need through the traditional lecture and resources such as books and articles. This gap can be filled by the Internet by creating a web page as a third resource for the student. The web page can serve as a class reference with information on it such as the class syllabus, the instructors office hours and alternative ways to reach the instructor such as via email. It can also serve as a source for handouts and outlines, allowing the student to choose whether or not to use this information. Lastly, it can serve as a link to other information that the student can explore if they choose to, such as links to other web sites Like the EPA, NOAA, USFS, NPS, Congress, the President and others. The amount of information that is available via the Internet can never be brought completely to the classroom, but by using a web page, we can show the students the way for them to explore outside the classroom.

CONCLUSION

The use of this triangle as a basis for teaching policy in the natural resources field provides the instructor with opportunities that conventional teaching methods in the field can not. Since policy is not a traditional field within natural resources, it requires that methods from its parental fields be used in its teaching.