The Kansas Environmental Leadership Program (KELP) prepares individuals to practice shared leadership, collaboration, and policy analysis, resulting in positive environmental changes in Kansas.

The focus of this paper is the integration of the separate but related concepts of leadership skills, subject matter knowledge, issue analysis, and public policy choices, using the KELP program as a case study. Several challenges to leadership educators which are inherent in developing multi-disciplinary applied training programs are addressed. Sustainability of the program and successful outcomes are briefly indicated.

Challenges

Developing an integrated training program incorporating a variety of skills and subject matter is not really new, but changing from the paradigm of several separate, distinct programs to one unified or holistic program is still a unique concept for many leadership trainers. Program development often falls into the category of “easier said than done.” However, designing the KELP program was an opportunity whose time had come.

The challenges of providing a multi-disciplinary training program increase when the participants, as well as the program design team, vary widely in interest, background, experience, and occupations. Here the challenges are grouped into three categories:

- Getting started
- Planning the training program content and methods
- Implementation

This program provided an opportunity to foster change and take responsibility for doing something that hadn’t been done in the Extension system in Kansas. The design team had concerns about taking risks and making mistakes, in both programming and in working as a project team.
Getting Started

The vision for KELP began with the realization by K-State Research and Extension personnel and Kansas Department of Health and Environment (KDHE) staff that:

Community leaders have increasingly recognized that the availability of high quality water is fundamental to attract new residents, industry, and tourism. To maintain economic vitality, communities must invest time and energy to protect and improve local water resources, but they may lack the information and leadership skills to move toward desired improvements.

The first step in sharing this vision was drafting a preliminary outline and exploring funding possibilities. An application for a grant to develop the KELP program was prepared by a team of Extension personnel led by Morgan Powell, a specialist in Biological and Agricultural Engineering who had participated in the North-Central NELD program. Funding was provided through Environmental Protection Agency (EPA) with the funds channeled through KDHE. A program design team of extension specialists (with expertise in water resources, leadership, and local government) and a representative from KDHE was formed to initiate the project. An extension associate with a background in environmental education and organizational leadership was hired.

The training program was built on the philosophy and research findings that indicate that people learn and retain information best when they are actively involved in the learning process. Thus, each KELP training session involves a mix of presentations, local experiences, and active learning opportunities.

The KELP program design team worked together to develop a training curriculum for the program. Much time and effort were required to establish the congenial working relationships we all wanted. We had different working styles, backgrounds, job responsibilities, with diverse approaches to process and technical information, and not nearly enough time. Our strengths were an overarching goal of making this cooperative venture succeed, trust in one another as individuals and in our own individual areas of expertise—but we had to work to integrate our contributions effectively.

Program team members included
- Morgan Powell, Extension Specialist, Biological and Agricultural Engineering
- Katey Walker, Extension Specialist, Family Studies and Human Services
- Dan Kahl, Extension Associate, KELP
- John Leatherman, Extension Specialist, Local Government
- Dan Devlin, Extension Specialist, Agronomy
- Don Snethen, Kansas Department of Health and Environment
- Daryl D. Buchholz, Assistant Director, Extension Agriculture & Natural Resources
Planning Program Content and Methods

We began with only a very general set of goals, teaching concepts, and sequence for the training sessions. Refining these ideas and setting priorities was the first step in planning, as we began to focus on specific issues and training needs. Despite difficulties in arranging schedules to meet as a planning group and to carry out assignments between meetings, the program agenda gradually came together. We initially focused on geographic locations of different types of water resources and related policy issues.

For the pilot program, we ended up planning one session at a time, so that we could get the more effective mix of learning activities and speakers and assignments on each topic. Subsequent classes were easier to develop because we had an overall time line and sequence of topics. Another difficulty we had to overcome was integrating this program into our other ongoing work, since we all had numerous other responsibilities for teaching and training.

The beginning planning sessions involved combinations of brainstorming ideas along with efforts to commit to some specifics. Once we agreed on an overall set of concepts and methods, we looked at each time slot. We determined what to teach—the learner objectives for the specific topics, resources (visual, actual or other materials), and experiential activities.

We also determined how to teach, with an emphasis in variety and group interaction. We planned methods of group building, anticipating that the group of participants would move through the stages of group development (forming, storming, norming, performing, and re-forming) fairly quickly. Get acquainted activities, ground rules, and other bonding or focusing activities which were practical, short, and not too "touchy feely," were developed. These activities, as well as the experiential learning model, were unfamiliar to most planning team members and participants, but we were committed to building them in an appropriate way. This required creativity in presenting technical subject matter—some of which was handled through lecture and written materials. Interactive and small group case study work and presentations to the total group worked well. At the final session, a graduation ceremony was held celebrating completion of the training and sharing future plans.

We planned a mix of speakers, including design team members/trainers. Local experts from the different locations were invited to serve as speakers, resource persons, or panelists. One of the most effective methods was the involvement of citizen participants who explained how they had planned and conducted public forums, worked with legislators, or otherwise been actively involved in resolving conflicts or influencing policy choices. Small scale collaborations with local people were a highly effective way to motivate and strengthen the ability of class participants to consider what they might accomplish when they returned home.

Time constraints were a constant problem. There was always more information to be included than time allowed. In using the experiential learning model, we were committed to provide
time for reflection, generalization, and discussion of applications.

We kept detailed notes of how to teach (process and content), which included case studies, small group discussions, and field experiences. We prepared a detailed chart of topics and methods for future reference. Written materials were revised and edited.

Participant recruitment was done at the same time as program development in the initial stages. This task was handled primarily by the extension associate, with suggestions from program team members and others familiar with water resources issues, agencies, and interested citizen groups.

Other managerial details—registration fees, emergency health forms, time off from work and/or employer support, selection of hotels and meeting locations, arrangements for field trips, local transportation, AV and other equipment—gave new meaning to all the items typically listed under “Planning for Effective Meetings” in the leadership handbooks.

The pilot class of 19 persons was drawn from the state legislature, state, county and local agencies, extension, and local communities. This class was asked to provide feedback and critical evaluation of the materials, the teaching process, and the overall training impact of the KELP program.

Each of the five sessions focused on specific aspects of water resources and policies and on leadership theories and skills:

- **Session One:** Understanding Leadership and Water Resources
- **Session Two:** Influential Leadership, Urban Water Infrastructure, and Government about Water
- **Session Three:** Involving the Public and Impacts on Surface Water
- **Session Four:** Managing Conflict and Impacts on Ground Water
- **Session Five:** Graduation and Sharing of Accomplishments and Plans

**Implementation**

Putting the training program into action was relatively easy once the planning and preparation had been completed. The teaching team consisted of two members of the design team for continuity and others, depending on topics.
The original debriefing format was to follow each class session with a team meeting for discussion and evaluation. At the conclusion of the pilot class, a student intern conducted an intensive focus group evaluation to help obtain ideas for revisions.

Subsequent classes followed the same overall pattern, with some changes in schedule, locations, and teaching personnel. We continued to enhance the class participants’ involvement and learning experiences, to truly promote leadership skill development and applications. Past participant involvement as hosts or presenters also contributed to credibility and motivation.

**Sustainability**

The fourth class is now in progress. Funding continued to be provided by KDHE and K-State Research and Extension. Classes have ranged from 20-28 persons.

The program team continued with some initial members rotating off. A new Extension associate was employed when the initial person moved to a community development position.

Publicity through media and through word of mouth was consistently favorable. Interest in continuing and expanding the KELP concept was indicated by requests for in short term workshops and continued networking.

Additional grant funding and/or employer support was located for workshops on specific topics. Different titles were used to indicate that these one or two-day sessions were not an abbreviated KELP program, but information on specific resources, policy options, or leadership skills.

**Accomplishments and Outcomes**

Examples of several small group projects in progress, or completed, are listed here. They illustrate the impacts of the training.

**Kansas-Lower Republican River Basin – Gratemates and Classmates.**

This Project utilizes a storm drain filter to capture storm water run-off from city streets and parking areas. Through the involvement of middle school youth, storm drain filters will be installed and monitored to evaluate and demonstrate the non-point source contribution of rainwater run off. The project will consider sources of pollutants, and possible actions to reduce non-point source pollution. This project will provide a hands-on, applied learning opportunity for up to 100 youth in the Kansas City area.

During the winter the team plans to visit the two schools, making presentations on Nonpoint Source Pollution. At the request of the Sumner Academy teacher, the team will also discuss environmental careers. They will visit the schools to install the Gratemates, for periodic inspections, and then to complete the project by removing the units and analyzing performance.
with the students. School officials, local community leaders, and media are invited to the final visit.

This project will establish a demonstration plot of Best Management Practices (BMPs) for agricultural lands in the Marais des Cignes Basin. The demonstration plot will identify the costs and benefits of utilizing BMPs for agriculture and on water quality. Local agricultural producers will be invited to tour and learn about the BMPs and their application.

The team selected two major areas: a water quality tour in Jefferson County, and a publication demonstrating the economic benefits of buffers vs. cropping. The tour was held in conjunction with a “Grazing School” to increase attendance. 61 people were at the event held on July 26, 2001. The tour included information on TMDLs, buffer strips, and riparian buffers.

**Walnut River Basin** - *Water Awareness.*
This project will increase public awareness of water resources and the importance of protecting water quality. Through the use of public presentations, TV advertisements (PSAs), and utilization of local media, this group will increase awareness of how the public can protect water resources.

The video has been completed and is in production. When completed, a copy is to be sent to the KWO, KDHE, and EPA. The team will be purchasing air time for springtime broadcasting of the video, and the video will be available to cities that have their own cable access.

**Smoky Hill-Saline River Basin** - *Warm Season Grasses and Water Savings.*
This project educates people about the irrigation water needs of various lawn turf grasses. People are encouraged to use buffalo or Bermuda grasses for lawns and to avoid using bluegrass and fescue. A random survey was conducted to determine numbers of lawns consisting of those four grasses.

A public education program through the City of Hays public works dept. emphasized the water savings potential of switching from bluegrass or fescue to either buffalo or Bermuda grasses.

**Olathe Water Festival**  This project will facilitate an educational activity that will create awareness and appreciation for water resources, and increase public awareness of surface water pollution by Nonpoint Sources (NPS). This will be cooperative effort with the City of Olathe, Kansas Biological Survey, KDHE, and Miami County Extension. The event will occur on one day at either Lake Olathe or Cedar Lake, and will be promoted to all members of the community. Attendees will learn about watershed activities and personal actions that affect water quality in these surface water bodies.

**Soil Amendment Pilot Project for Lake Afton Watershed**  This project will prevent eutrophication of Lake Afton by demonstrating that low pH levels in soil increase nutrient loss through runoff, that liming soils to neutral pH levels decreases nutrient loss through runoff, and to encourage soil testing and subsequent lime applications within the watershed. This will be a cooperative effort with the Sedgwick County Conservation Board, Board of County Commissioners, USDA NRCS, KSU Research and Extension, and Friends of Lake Afton
(FOLA). A field will be identified, soil tested and runoff sampled. Lime will then be applied after harvest to part of the field, followed by sampling. A workshop for area landowners is planned to demonstrate BMPs.

**Multi-media Materials that Highlight Cost Sharing Opportunities to Improve Stream Water Quality** This project will improve surface water quality in Kansas streams. Cost sharing funds and technical assistance are available to help land owners and operators implement practices to reduce Nonpoint Source Pollution. The aim of the project is to produce multi-media presentations that will inform and educate land users across the state about cost share assistance for water quality improvement projects. Compact discs will be produced with photos and narration. Workshops may be held to provide in-depth information for appropriate agency staff. Publicity about the project and its results will be accomplished through direct contact with agencies and the general news media.

Each KELP participant was part of forming and maintaining a small working group, which developed its own vision and goals and an action plan to carry out the project. Most project groups also involved members of their local communities’ organizations in implementing the plans. The project groups experienced similar stages and challenges at the project level that the KELP design team had worked through in developing the training program.

This combination involved teamwork by both the design team and the participants. Successful completion of the training program and the small group project indicate that participants learned about and applied:

- Leadership and personal styles,
- Communication skills,
- Collaborative problem solving,
- Conflict resolution and interest-based negotiation,
- Knowledge of water resources in Kansas,
- Understanding of point and non-point source pollution,
- Public policy and water management choices, and
- Citizen participation in policy decisions.

Participants showed a significant gain in knowledge and skills. They learned about their own personality types and ways of working with others of either the same or different styles. They improved their leadership and communication skills and ability to facilitate group formation and action. Significant knowledge gains about water resources, watersheds, and agencies dealing with water policy were applied to understanding the distinct characteristics of their own watershed areas in relation to water quality and protection.
**Summary**

KELP developed leadership skills, provided information about the environment and water resources, and taught both principles and processes of public issues education. The model can be replicated for other types of training programs with similar goals, especially those which follow the principle that leadership development occurs best around concrete issues and is based on the experiential learning that involves *experiencing* an action or activity, *sharing* the results and observations, *processing* by reflecting and discussing, *generalizing* by connecting the experience to other activities, and *applying* what was learned to other situations.

The unique feature is the combination of leadership skills, public policy education methods, and subject matter dealing with water resources and water policy choices. The challenge to leadership educators and program planners is to move from vision to action to build an integrated training program.

**Reference**

To learn more about the Kansas Environmental Leadership Program—including application form, schedule, fees, college credit, professional continuing education, speakers, and financial assistance—please visit www.bae.ksu.edu/kelp.