Spatial Perspectives on Analysis for Curriculum Enhancement

Program

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**Focus:** focused on Professional Development Workshops for undergraduate social science instructors to provide hands-on training in GIS and spatial analysis, access to the latest techniques, software, and learning resources; and guidance on teaching approaches and learning assessment.

To leverage these workshops, SPACE provided participants with awards for curriculum development and support for developing special sections and short workshops at the annual conferences of academic associations.

**Technical Themes for Workshops:**
- Geographical Information Systems (GIS)
- Spatial Pattern Analysis
- Spatial Econometrics
- Map Making and Cartographic Visualization
- Spatial Interaction Modeling
- Place-Based Spatial Methodologies
- Applications in the Social Sciences

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**Workshops**

Graphic Syllabus for 2007 UCB Workshop includes five columns (time arrows) on the sequence of activities over six days, from left to right:
1. **general logistics**
2. **linking spatial theory and analysis with social science perspectives**
3. **alignment of theory and analysis with pedagogical needs and assessment of student learning**
4. **structured labs for the development of technical skills**
5. **preparation of individual projects for presentation on the final day**

**Participants**

**Workshop Participants:**

- The 216 workshops participants came from 147 different institutions of high learning in the United States and a dozen universities in North America, South America, Asia, and Europe. Nearly 20 percent of all participants were instructors at designated minority-serving institutions.

**Disciplines:**
- Anthropology
- Art & Design
- Communications
- Computer Science
- Criminology
- Geography
- History
- Political Science
- Psychology
- Public Health
- Public

**Gender/Minority:**
- Male
- Female
- Minorities

**Completion:**
- Number of participants in workshops:
- 216 participants

**Expected Knowledge:**
- Learning Environment
- Met Expectations: Spatial Statistics
- Data Visualization
- GIS Software Use
- Data Access
- Spatial Analysis
- Theory of Data Visualization
- Knowledge
- GIS
- Data Access
- Software Use
- Technical Support
- GIS

**Impact of Workshops on Participants**

- Average values on scale of 1 to 5 for 134 respondents to the follow-up surveys, conducted one year after each of the 2004, 2005, 2006, and 2007 workshops:
- **1** = No Impact, **2** = Very Little Impact, **3** = Some Impact, **4** = Moderate Impact, **5** = Strong Impact

**Summary**

- The SPACE program achieved its mission for promoting the dissemination of spatial technologies in undergraduate education in the social sciences.
- A focus on diversity resulted in representation of participants across gender, ethnicity, and race from all regions of the United States.
- More than 70 participants from more than a dozen disciplines reported on the role of IP-ICTs in their introduction of new courses on spatial analysis and spatial thinking.
- Nearly a hundred participants from IP-ICT workshops use material in their introduction of new course exercises and teaching modules.
- The workshops, in general, exceeded participant expectations in introducing learners to applications of spatial technologies in teaching, in expanding participant knowledge about use of tools for spatial analysis, and in introducing strategies for improving student learning.
- More than 100 participants reported on actively sharing their workshop experience with colleagues and even with institutions and colleagues.