Towards New Communities of Learning

Interdisciplinary Teaching in General Education at UCLA

Final Report
To
The William and Flora Hewlett Foundation

June 22, 2001
Final Report
Towards New Communities of Learning:
Interdisciplinary Teaching in General Education at UCLA

OVERVIEW

In 1999, the William and Flora Hewlett Foundation awarded UCLA's College of Letters and Science a two-year grant to develop a process for engaging faculty in the development and teaching of general education (GE) clusters. GE clusters are collaboratively taught yearlong courses for freshmen organized around a broad topic that lends itself to interdisciplinary instruction. These courses also introduce students to “best practices” such as inquiry based learning, intensive writing, small discussion sections, and seminars. Over the last two years, Hewlett funds have been used to support the identification and organization of a number of faculty “affinity groups” that share an interest in organizing new GE clusters around a variety of important and timely topics. This final report summarizes the activities and accomplishments of the affinity group initiative, as well as what the College has learned about this approach to cultivating new communities of lower division teaching and learning at UCLA.

Soon after the launching of the GE cluster initiative in 1998, it became more and more apparent that cluster course development was a complex process covering a two-year period. Unlike more traditional department-centered general education courses that are taught by a single faculty member, clusters require a cohort of faculty from different disciplines. Identifying these faculty cohorts takes considerable time, as does the process of selecting and organizing a cohesive collaborative teaching team from among the membership of these groups. Furthermore, once a cluster’s teaching team is assembled, team members must become familiar with the disciplinary cultures of their colleagues, develop a course proposal to be approved by the relevant Academic Senate committees, prepare a cluster budget and syllabus, and recruit the cluster’s graduate student instructors.

The complexity of this cluster course development process underscored the need for a community of scholar-teachers who would be supportive of GE clusters and skilled in designing and teaching these unique yearlong interdisciplinary courses. To achieve this end, the College submitted a grant proposal to the Hewlett Foundation in 1999 for money to fund a range of programs aimed at engaging 120 to 140 faculty in GE cluster development. Specifically, the College proposed to do the following over a two-year period:

- Identify and organize a number of “affinity groups” comprised of faculty from different departments and schools who were interested in developing a GE cluster course around a topic of shared interest;

- Provide modest budgets to these affinity groups to cover logistical needs, research, outside speakers, and small on-campus meetings focused on cluster development issues;
• Offer three one-day workshops aimed at bringing these affinity groups together and exposing them to the work of noted experts in the field of interdisciplinary education;

• Hire instructional coordinators to provide systematic and ongoing support for faculty affinity group activities;

• Develop a comprehensive website to promote the cluster initiative and provide valuable reference materials to faculty engaged in cluster course development; and

• Organize a final retreat aimed at bringing together everyone involved in the affinity group initiative for the purpose of assessing the overall effectiveness of this approach to building new communities of lower division interdisciplinary teaching and learning at UCLA.

The interim progress report of June 2000 outlined in detail the efforts of the College during 1999-2000 to create and nurture new communities of scholar-teachers. Briefly, these activities included the following:

• Identifying, organizing, and supporting eight faculty affinity groups with a total of 97 scholar-teachers*;

• Hiring an instructional coordinator to assist these faculty affinity groups in their efforts to develop new cluster courses;

• Developing two new cluster courses, *The United States 1963-1974: Politics, Society and Culture* and *Perception and Illusion: Cognitive Psychology, Literature and Art*, which were taught in the 2000-2001;

• Creating a website to promote the cluster initiative and record the progress of the faculty affinity groups;

• Sponsoring two UCLA/Hewlett cluster workshops that focused on issues, questions, and problems that faculty confront when attempting to integrate different disciplines together in a yearlong GE course; and

• Participating in the June 9-10, 2000 nationwide Hewlett Foundation Forum on “General Education in the Research University” at New York University.

During 2000-2001, the College continued these affinity group development and support activities with the following results:

• Six additional affinity groups were organized with a complement of 64 faculty members. Over the two-year period of the grant, 14 affinity groups were identified with 161 faculty participants.

---

* This includes the 35 faculty members who were involved in the affinity groups that designed and organized the clusters *The United States, 1963-74: Politics, Society and Culture* and *Perception and Illusion: Cognitive Psychology, Literature, and Art.*
• Two new cluster courses were developed for 2001-2002, i.e. _Towards a World Economy: The Perils and Promise of Globalization_ and _Frontiers in Human Aging: Biomedical, Social, and Policy Perspectives_;

• Two academic administrators were hired, one with expertise in the humanities and the other in the natural sciences, for the purpose of assisting faculty with cluster course development, organization, and instruction;

• A two-day workshop on the challenges of interdisciplinary course design and teaching was organized featuring the noted educational consultant, Sheila Tobias;

• A team of GE cluster administrators and faculty participated in the Reinvention Center San Francisco Regional Network Meeting of March 30, 2001; and

• A two-day on site external review of the GE cluster affinity group initiative was organized with a faculty panel of national experts on undergraduate educational reform.

**SUMMARY OF AFFINITY GROUP ACTIVITIES AND OUTCOMES**

Over the last two years, Hewlett funds were used by the College to engage faculty in lower division teaching through a series of initiatives centered on GE cluster course development. These included:

• Developing a two-phase process focused on conceptualizing, developing and offering new general education cluster courses. Each of these phases encompasses roughly nine to 12 months of activity and includes:

  ➢ **Phase I-Cluster Conceptualization and Socialization** - involves the identification and organization of an affinity group of five or more faculty members who share an interest in organizing a cluster around a given topic.

  ➢ **Phase II-Cluster Development and Implementation** - engages the affinity group in the preparation of a course proposal for review and approval by relevant Academic Senate committees, the selection of a teaching team, the preparation of a course budget and syllabus, and the recruitment of graduate student instructors.

• Offering three workshops and a series of graduate student instructor orientation and training sessions for the purpose of disseminating information about the GE cluster initiative and preparing cluster teaching teams for the challenges of interdisciplinary collaborative teaching.

• Creating websites and printed material to promote the cluster initiative and provide participants in it with reference materials and guides to pedagogical and administrative resources.
• Organizing a two-day on-site review and assessment of the GE cluster affinity group initiative by an external panel comprised of faculty engaged in undergraduate education reform initiatives.

The following is a summary of the specific activities and outcomes in each of these four areas over the last two years.

1. Faculty Affinity Groups and Cluster Course Development

Over the last two years, fourteen affinity groups have been identified and organized for the purpose of developing new cluster courses. The topics around which these groups were organized are:

- *Africa in the New Millenium: Roots and Prospects*
- *Aging in the New Millenium*
- *America in the Sixties*
- *Biotechnology and Society*
- *Making “Sense” of the World: Perception and Illusion*
- *Performing Arts*
- *Religion and Society in the Near East*
- *Sex and Society*
- *Simulating Reality: Cyber Models of Cultural Complexity*
- *Towards a World Economy: The Perils and Promise of Globalization*
- *The 21st Century in America*
- *UCLA on Los Angeles*
- *Understanding Violence*
- *Work and Labor*

A description of these affinity groups is found in Appendix I. A total of 161 scholar-teachers participated in these 14 affinity groups (Table 1). Over 70% of the faculty involved in these groups are tenured, and many of them have never taught freshmen students in general education courses.

| Professor | 21 | 47 | 26 | 94 |
| Associate Professor | 3 | 7 | 11 | 21 |
| Assistant Professor | 3 | 12 | 2 | 17 |
| Lecturer | 2 | 2 | 2 | 6 |
| Other** | 12 | 4 | 7 | 23 |
| **Total** | 41 | 72 | 48 | 161 |

*Includes affinity group members from the School of Medicine

**Includes adjunct faculty, post-doctoral scholars, and professional staff

All of the affinity groups were provided with modest budgetary support for logistical needs, research, outside speakers, and small on- and off-campus meetings dealing with cluster course development, organization, and teaching. Academic administrators were
hired, and paid in part by Hewlett funds, to provide faculty with assistance in organizing their affinity groups, designing their cluster course proposals, and putting together their teaching teams. Resources were provided to affinity groups for the purpose of creating websites to post information on their topics, membership, and activities. And in an effort to bolster first-year learning communities, Hewlett funds were also allocated to assist affinity group faculty in their efforts to integrate their cluster lectures, discussion sections, seminars, and office hours in UCLA’s student residential life area.

As in the first year of the affinity group initiative, these groups continued to use this support in different ways. Some groups made full use of the range of budgetary and organizational support available to them through the initiative. They held regular working lunches, hosted receptions, hired research assistants, and created websites. Other groups did not take advantage of these support options for a number reasons, including time constraints, a lack of enthusiasm for the topic in question, or difficulty in identifying faculty members who were interested in making a commitment to GE cluster teaching.

Just as their use of initiative support varied markedly, so too did the progress of these different faculty affinity groups. Over the last two years, five faculty affinity groups moved through both phases of cluster course development, and four of them have implemented new cluster courses for incoming freshmen students. Six other groups are still engaged in the conceptualization and socialization phase of cluster development and hope to develop and offer cluster courses organized around their topics at some point in the near future. Three affinity groups have either dissolved or become inactive due to their inability to organize and sustain a viable group. The breakdown of these 14 affinity groups is as follows:

### Table 2. Progress of the 14 Affinity Groups During the Two Year Grant Period

<table>
<thead>
<tr>
<th>Completed Phase I and II of Cluster Development and Implementation Process</th>
<th>Phase I Conceptualization and Socialization Affinity Groups</th>
<th>Phased-out Affinity Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>- America in the Sixties</td>
<td>- Biotechnology and Society</td>
<td>- Africa in the New Millenium: Roots and Prospects</td>
</tr>
<tr>
<td>- Making “Sense” of the World: Perception and Illusion</td>
<td>- Performing Arts</td>
<td>- Religion and Society in the Near East</td>
</tr>
<tr>
<td>- Aging in the New Millenium</td>
<td>- Sex and Society</td>
<td>- The 21st Century in America</td>
</tr>
<tr>
<td>- Towards a World Economy: The Perils and Promise of Globalization</td>
<td>- UCLA on Los Angeles</td>
<td></td>
</tr>
<tr>
<td>- Simulating Reality: Cyber Models of Cultural Complexity</td>
<td>- Understanding Violence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Work and Labor</td>
<td></td>
</tr>
</tbody>
</table>
2. Cluster Workshops

To orient the faculty affinity groups to the general education cluster model and inform the campus community about both the GE cluster and affinity group initiatives, the College designed and organized three workshops over the two year period of the Hewlett grant (see Appendix II for programs and participants). Subsumed under the title *Making the Connections: The Challenges of Designing Multidisciplinary General Education Courses*, these workshops were designed to address the confusion and discomfort that faculty, graduate student instructors, and first-year students all face when brought together in courses that attempt to address a common problem from different disciplinary perspectives. Specifically, the workshops focused on the following:

- The challenges confronting cluster course participants when they cross into unknown intellectual territory and grapple with epistemologies quite different from their own;

- The role that affinity groups can play in aiding faculty to become more familiar with the disciplinary cultures of their colleagues, i.e. with how they study, talk about, and conduct research on a given topic;

- The necessity of creating a schematic, or roadmap, that clearly outlines the aims of a cluster and the ways in which its different disciplinary cultures will work together to accomplish their common course objectives.

A special series of orientation sessions and seminar development workshops were also organized for the graduate student instructors who were participating in cluster course development and teaching for the first time. These events focused on familiarizing cluster graduate student instructors with the characteristics and needs of freshmen students, as well as the challenges that they would face leading first-year discussion sections and seminars. In addition to these orientation and training sessions, a number of luncheons and dinners were organized over the last two years to bring together all of the cluster graduate students and faculty in the cluster teaching teams for roundtable discussions about their shared experiences in the cluster initiative.

The College also participated in a regional network meeting of private and public research universities that was sponsored by the Reinvention Center at Stony Brook (March 2001). This event allowed representatives from the undergraduate divisions of various UC campuses, Stanford, University of Southern California, Colorado, Hawaii, New Mexico, Oregon, Texas, Utah, and Washington State to exchange information regarding the efforts of their institutions to improve and reform general education. Three cluster faculty coordinators, two members of the GE cluster administrative team, the Vice Provost for Undergraduate Education, and the Chair of UCLA’s Undergraduate Council participated in this network meeting. The Reinvention Center has posted information

---

* The Reinvention Center at SUNY Stony Brook was born of the national and international interest generated by the Boyer Commission Report, “Reinventing Undergraduate Education: A Blueprint for America’s Research Universities,” in 1998. The Center sponsors programs, studies, websites, and research focused on the improvement of undergraduate education in the United States.
about this event and the UCLA cluster initiative on its Spotlight webpage, which can be accessed at the following URL: http://www.sunysb.edu/reinventioncenter/spotlight.html

3. GE Cluster Website and Information Materials

Over the last two years, Hewlett funds have been used to create a comprehensive website for the purpose of providing information on the progress of the GE clusters and the affinity group initiative. Hewlett support has also been used to assist faculty affinity groups with the development of individual course websites for both new and ongoing clusters. These sites can be accessed at http://www.college.ucla.edu/ge and they provide the following kinds of information:

- An overview of the history and ongoing assessment of the GE cluster initiative;
- A description of the current clusters and links to their course websites;
- Affinity group information and links to their websites;
- A calendar of events with links to program information and reference materials; and
- A list of pedagogical and administrative resources available to cluster teaching teams and affinity groups.

Finally, Hewlett support has also been used to fund the design and production of the yearly GE cluster brochure (see Appendix III). This brochure is one of the principal means of disseminating general information on the GE cluster initiative and its courses to the public-at-large, all incoming first-year students, and UCLA faculty and staff.

4. External Review of the GE Cluster Affinity Group Initiative

In an effort to assess the overall effectiveness of the engagement of faculty in lower division collaborative teaching through GE cluster development, an external review panel of faculty was assembled for an on-site visit from April 26-27, 2001. The individuals who participated in this panel were:

- Christopher Campbell, Director of Community and Environmental Planning, University of Washington
- Frederick Campbell, Vice Provost and Dean of Undergraduate Education, University of Washington
- Lynda Goff, Vice Provost and Dean of Undergraduate Education, University of California at Santa Cruz
- Wendy Katkin, Associate Provost for Educational Initiatives and Director of the Reinvention Center, SUNY Stony Brook

These panelists were provided with a comprehensive packet of GE cluster information materials and arrangements were made for the review team to meet and talk to three different groups of faculty and graduate student instructors on Thursday, April 26, 2001. Each of these groups had been or was currently involved in a particular stage of cluster course development and implementation. During the second day of the panel's visit, Friday, April 27th, the review team met with the GE cluster assessment team and the
Academic Senate chairs that oversee general education development and reform at UCLA.

Following these meetings, the review panel issued a report (see Appendix IV) with the following findings:

**Overall Assessment of the GE Cluster and Affinity Group Initiatives**
The external review panel found both the GE clusters and UCLA's joint efforts with the Hewlett Foundation to engage faculty in their development and implementation to be successful. They further recommended that the College of Letters and Science celebrate this achievement by moving GE clusters out of their current “initiative” stage, and incorporating them as an ongoing program and a key component of general education at UCLA.

**Ongoing Challenges and Recommendations**
The review panel also found that the cluster initiative continues to confront a number of important challenges. These challenges and their recommendations are summarized as follows:

- **Faculty Engagement in Lower Division Teaching.** If faculty are to continue to be engaged with the GE cluster initiative, steps will have to be taken to highlight, honor, and reward their participation in this program.

- **Graduate Student Instructor Workload.** Graduate students feel that their workload in the clusters is heavy and their instructional responsibilities great. More attention needs to be given to providing them with additional training and administrative support. The unique nature of graduate student teaching in the clusters should also be formally acknowledged and rewarded by the College.

- **Cluster Course Development and Implementation.** A cluster course “template” should be developed that focuses faculty attention on the use of writing assignments, research activity, collaborative teamwork, instructional technology, and presentations to educate students about the subject of the cluster.

- **Cluster Assessment.** Cluster assessment needs to be used as a tool to foster continued programmatic improvement by documenting those faculty and graduate student instructor pedagogical practices that could be applied to all of the clusters.
LESSONS LEARNED AND FUTURE DIRECTIONS

The UCLA/Hewlett Foundation affinity group initiative was launched for the purpose of creating a community of scholar-teachers that would be committed to lower division interdisciplinary collaborative teaching in the GE clusters. To achieve this, the College used Hewlett funds to support faculty affinity groups that were focused on creating cluster courses around topics of intellectual and social importance. Once organized, these groups moved through a two-phase process of cluster course conceptualization, development, and implementation. This process has proven effective in informing and engaging a number of senior faculty members in the creation and teaching of these unique courses.

Our experience organizing faculty affinity groups and providing them with informational workshops and administrative support has suggested a number of lessons in the process of cluster course development. These lessons fall into the following three broad categories:

1. Affinity Group Organization

Strong affinity groups were key to the successful development and implementation of the four new clusters that emerged out of this two-year initiative. The following factors contributed to the strength of these groups:

- A faculty convener who was passionate about the group's topic and committed to taking whatever steps were necessary to see a cluster course developed around it. All of the affinity groups that succeeded in developing new cluster courses were organized by individuals who had a longstanding professional interest in a particular subject area and also believed that a cluster could offer unprecedented opportunities for the study of that topic. These individuals were also distinguished by their ability to work closely with their colleagues, to develop a comprehensive course, and select and effective teaching team.

- Connections to either a pre-existing or emerging interdisciplinary program (IDP) or center. Of the five affinity groups that successfully navigated the cluster development and implementation process, two of them, Aging in the New Millenium and Simulating Reality, were directly tied to an interdisciplinary program, while a third, Perception and Illusion, was organized around a field (cognitive psychology) that was likely to become the focus of a future IDP.

- Liberal use of the budgetary and logistical support provided by the UCLA/Hewlett affinity group initiative. The five faculty affinity groups that developed cluster courses used their budgets and the GE administrative team to arrange meetings and social gatherings, which generated interest in their topics and helped identify teaching teams for their prospective clusters.
2. Cluster Course Development

Even with the budgetary and logistical support that was provided to the faculty affinity groups through the Hewlett initiative, all needed a considerable amount of information and guidance with regard to designing and teaching a successful yearlong, interdisciplinary, collaboratively taught course for first-year students. If the affinity group model continues to be the principal process through which new clusters are developed and continuing ones are maintained, the following kinds of workshops and information will have to be provided to prospective faculty and graduate student instructors:

- A yearly orientation session that brings together faculty affinity groups with panels of former and current cluster faculty, graduate student instructors, and students. This session will provide affinity groups with the following kinds of information:
  - What the GE cluster program is, how it operates, and what challenges they are likely to face when they conceptualize, design, and teach a new cluster course;
  - Ways in which an affinity group can be used to familiarize faculty with one another's disciplinary cultures; and
  - The need to focus the initial activity of an affinity group on the creation of a cluster course schematic that clearly outlines what the aims of the proposed course and how they intend to achieve those ends.

- A yearly workshop along the lines of Sheila Tobias’ “Peer Perspectives on Teaching” that highlights the challenges of teaching clusters by placing faculty in the role of freshmen students.

- A model cluster course “template” that points faculty affinity groups to the pedagogical practices that the clusters have successfully used in achieving the educational aims and objectives of their courses.

- More extensive use of academic administrators in the process of creating a course proposal, moving it through the pertinent Academic Senate committees, and assisting the faculty coordinators with the final development of their cluster syllabi.

3. Maintaining Continued Faculty Engagement in the Cluster Initiative

In their final report, the external review panel noted that if faculty engagement in the clusters is to continue, there will need to be new outreach initiatives, organizational support, and additional incentives for their participation in the clusters. Specifically, the panel recommended that the College do the following:

- Legitimize the GE clusters by moving beyond the initiative stage and recognizing these courses as a regular and key component of general education at UCLA.

- Highlight the cluster program locally, regionally, and nationally as a unique and highly successful general education experience for first-year students.
- Honor participation in the clusters through public events and special awards.
- Encourage departments to acknowledge cluster participation when considering faculty promotion, tenure, and merit salary increases.
- Establish ties between current and former cluster faculty of the different clusters with the aim of creating a community of cluster leaders and advocates.

## BUDGET SUMMARY

Hewlett funds were requested to support the five major program areas. Table 3 summarizes the expenditures for Year One (1999-2000) and Year Two (2000-2001) in addition to the matching funds provided by the College of Letters and Science.

### Table 3. Hewlett Foundation Grant Expenditures and College of Letters & Science Matching Funds 1999-2000 and 2000-2001

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hewlett Funds</td>
<td>UCLA Funds</td>
<td>Hewlett Funds</td>
</tr>
<tr>
<td>Affinity Groups</td>
<td>9,600</td>
<td>36,666</td>
<td>16,223</td>
</tr>
<tr>
<td>Expanded Leadership</td>
<td>29,987</td>
<td>47,554</td>
<td>43,992</td>
</tr>
<tr>
<td>External Consultants</td>
<td>2,445</td>
<td>16,266</td>
<td>18,711</td>
</tr>
<tr>
<td>Workshops</td>
<td>2,719</td>
<td>13,996</td>
<td>16,715</td>
</tr>
<tr>
<td>Web/Communications</td>
<td>3,760</td>
<td>11,012</td>
<td>12,772</td>
</tr>
<tr>
<td><strong>Total Hewlett Contribution</strong></td>
<td>$48,511</td>
<td>$101,489</td>
<td>$150,000</td>
</tr>
<tr>
<td><strong>Total UCLA Funds</strong></td>
<td>$84,220</td>
<td>$176,738</td>
<td>$260,958</td>
</tr>
</tbody>
</table>

The summary below outlines how Hewlett funds were used in the past year.

### Affinity Groups

**Hewlett Grant Funds**

**Year One.** Each of six affinity groups were allocated $1,200. Several of the affinity groups used their allocations to hire graduate student researchers to provide administrative support to the group.

**Year Two.** In addition to allocating $1,200 to each of six new affinity groups, additional grant funds were used to provide lecture room space in the residence halls. As with Year One, several of the affinity groups used their allocations to hire graduate student researchers to provide administrative support to the group.
Matching Funds from the College

Year One. In the Spring of 2000, the College allocated funds for four course releases. These course releases allowed faculty coordinators time to develop course syllabi and materials for the two new cluster courses, and to identify, hire, and integrate graduate student instructors into their cluster teaching teams. Funds were also allocated in the Spring of 2000, to the new graduate student instructors to give them the opportunity to attend training workshops and work with their cluster's faculty coordinator in the development of course materials.

Year Two. The College allocated funds for five course releases for faculty from two new clusters and one returning cluster to allow them the time develop course materials and identify new graduate student instructors.

Expanded Leadership

Hewlett Grant Funds

Year One. Grant funds were allocated to provide a portion of the GE Cluster Instructional Coordinator, Dr. Greg Kendrick's, time for the purpose of affinity group development.

Year Two. Grant funds were used to fund a portion of the time of two academic administrators (Dr. Cheryl Kerfeld and Dr. Jeffrey Decker) to work directly with the science and non-science faculty in designing new clusters.

Matching Funds from the College

Year One: The College funded 50% of Dr. Kendrick's time.

Year Two: The College funded Dr. Kendrick's time in total, as well as a portion of Dr. Decker's and Dr. Kerfeld's time.

External Consultants

Year One. Grant funds were used to sponsor two workshops designed to expose faculty interested in cluster teaching to the experiences and lessons learned by cluster faculty, graduate student instructors, and former cluster students.

Year Two. Grant funds were used in November, 2000 to bring Sheila Tobias, noted consultant on curricular reform, to UCLA for a two-day workshop. Additionally, funds were used in March, 2001 to host four external reviewers for the purpose of an on-site review and assessment of the GE cluster program.

Workshops

Year One. Grant funds were used to sponsor two workshops in the UCLA Faculty Center attracting over 70 participants. Also funded was a special series of orientation sessions, seminar development workshops, and information luncheons for the graduate student instructors. A luncheon and a dinner designed to bring together all
of the graduate students and faculty in the cluster teaching teams for roundtable
discussions about their shared experiences in the cluster initiative was also funded.

Year Two. Grant funds were used to sponsor a two-day workshop, lead by Sheila
Tobias, as well as a two-day on-site review led by a four person external review
panel. As with year one, a series of orientation sessions and seminar development
workshops for the graduate student instructors, as well as the round table luncheons
and dinners for cluster teaching teams were also funded.

Website/Communications.

Year One. As we developed a comprehensive general education cluster program
website, grant funds were used to employ a graduate student researcher, at 25% time
over the course of the year, whose time was dedicated to website development.
Additionally funds were used to design and produce the annual GE cluster brochure.

Year Two. Funds were used to employ a graduate student researcher, full time in the
summer and 12.5% time over the academic year, to assist in the design and
maintenance of two cluster course websites. As with year one, funds were also used
in the design and production of the GE cluster brochure.