



Mellon Evaluation Framework

Goals: Provide analysis and recommendations related to sustaining elements of the Mellon Fellowship on Undergraduate Research initiative and extending its impact.

Primary Audiences: Individual faculty members and campus administrators.

Secondary Audiences: Mellon Foundation and other research institutions.

Objectives: Gather qualitative and quantitative evidence and document findings about:

1. Impact on individual faculty
2. Impact on campus culture of learning
3. Impact on student learning

Key Questions:

Objective 1: Impact on individual UCB faculty

- A. What are effective learning environments and approaches for faculty¹?
- B. In what ways has this initiative influenced faculty's teaching?
- C. How did faculty benefit personally and professionally from their participation in this initiative?
- D. What obstacles prevent faculty from incorporating various types of research-based learning into their personal practice

Objective 2: Impact on campus culture of learning

- A. What are the immediate instructional effects and accomplishments of this project?
- B. In what ways has this initiative affected inter- and intra-departmental and unit interactions?
- C. What elements are needed to effectively support course redesign?
- D. What characteristics are present among the instructors and the environments in cases where research assignments in redesigned courses have been sustained?

Objective 3: Impact on student learning

- A. What are students' perceptions of the value of research and research assignments?
- B. What are instructors' perceptions of the impact of research assignments on student learning?
- C. What types of student learning assessment did faculty, GSI's, and project staff consider successful/effective/useful for research assignments?

¹ The term "faculty" will be used in this framework to refer both to ladder-rank faculty and to lecturers, instructors, and adjunct faculty.

- D. In what ways do student information-seeking behaviors and use of research materials change after exposure to the courses taught by Mellon Faculty Fellows?

Key Questions with Details about Evidence and Sources of Data

Objective 1: Impact on individual UC Berkeley faculty

A. What are effective learning environments and approaches for faculty?

1. What were the underlying thoughts and considerations that affected the way the program was designed and structured, e.g., eligibility, requirements, and rewards for participation, collaborative and support features, timing of components, etc. (project staff interviews)
2. What resources were made available to Faculty Fellows and academic partners to assist their work on the project? (project staff interviews, project records)
3. What changes have been made in the Mellon Faculty Fellowship for Undergraduate Research program across the four years to enhance its impact on faculty? Which strategies and practices were the most successful? What still might be improved? (project staff interviews, academic partner surveys, faculty surveys)

B. In what ways has this initiative influenced faculty's teaching?

1. What benefits did Faculty Fellows hope to get out of the Institute and other activities? Were there differences in the primary motivations of various faculty participating? (data from pre-Institute survey and on-line postings)
2. What did Faculty Fellows say were the most important skills, knowledge, and experiences they gained from the Summer Institute and follow-up activities? (data from post-Institute survey, faculty interviews)
3. In what ways did the Mellon project affect Faculty Fellows' thinking about teaching—their philosophy of education, goals for courses, plans for assignments, expectations of students, organizational strategies, evaluation of student learning? (Faculty Fellow pre-surveys, surveys and interviews, syllabi for courses)
4. What approaches to the assessment of student learning of research and information literacy skills did the faculty try out? Which seemed to be the most successful and practical for the large enrollment classes? (Faculty Fellow interviews and data from assessment pilot)
5. What changes did faculty make in their course syllabi, teaching plans, and work with GSI's both immediately and after one or more tryouts of their revised courses? (faculty fellow pre-surveys, course syllabi submitted at end of Institute, course syllabi posted on course websites, faculty interviews, GSI surveys)

C. How did faculty benefit personally and professionally from their participation in this initiative?

1. In what ways did the focused interactions and discussions with other faculty participating in the program personally benefit individual Faculty Fellows? (Faculty Fellow interviews)
2. In what ways have Faculty Fellows influenced other departmental faculty, administrators, and other professionals through discussing or

writing about their course or the project or through participating in related campus efforts? (departmental colleague interviews or surveys, department chair/head surveys, Faculty Fellow surveys and interviews)

- D. What obstacles impede faculty from incorporating various types of research-based learning into their personal practice?
1. What obstacles have Faculty Fellows experienced in trying to implement various research-based learning innovations in their classes? Which of the obstacles may be associated with the targeted types of classes (e.g., large classes, heterogeneous collections of students in terms of year and major, subject matter of their course, etc.) rather than the nature of the research assignment? What strategies have faculty employed to overcome these various obstacles? (faculty interviews, GSI surveys, summary of eBerkeley symposium faculty interviews and sessions)
 2. What obstacles do other faculty cite as inhibiting or preventing their implementation of research-based learning and the development of information literacy skills in their classes? (surveys/interviews with departmental colleagues of Faculty Fellows)
 3. After some experience trying to implement student research and information literacy components into their classes, which research concepts and skills do Faculty Fellows feel are best suited to teaching within large enrollment classes? Are there some types of these skills that faculty feel might be better or more efficiently communicated by librarians or by web modules? (faculty interviews)

Objective 2: Impact on campus culture of learning

- A. What are the immediate instructional effects and accomplishments of this project ?
1. How many Faculty Fellows of various ranks, disciplines, gender, and years at UC Berkeley have been involved in the Mellon Fellowship initiative? (project records)
 2. How many revised undergraduate courses containing research assignments have been planned by Faculty Fellows within various departments at UC Berkeley because of the Mellon initiative? How many have already been implemented? (Faculty Fellow surveys, Faculty Fellow interviews, review of Faculty Fellow portfolios)
 3. What is the range of different research assignments and experiences that have been designed for these undergraduate courses? (course syllabi, Faculty Fellow surveys and interviews)
 4. How many undergraduate students have taken these revised courses and received instruction and experience in carrying out these specially designed research assignments? (institutional records)
 5. How many GSI's have received orientation and experience in assisting the implementation of a research component in undergraduate courses since the Mellon initiative began? What have GSI's gained from this experience? (faculty surveys, GSI surveys)
 6. How many other University staff have collaborated in and contributed to the initiative as academic partners? (project records, academic partner surveys)

- B. In what ways has this initiative affected inter- and intra- departmental and unit interactions?
1. How do faculty colleagues of Mellon Faculty Fellows view the initiative? Have any of them made changes to their own courses to encourage the development of undergraduate research skills? Have there been any changes to the structuring of any undergraduate programs or majors because of the Mellon initiative? (Faculty Fellow surveys and interviews, department chair/department head surveys, faculty colleague surveys or interviews)
 2. Has the Mellon initiative affected faculty fellows' perception of the role and potential contribution of librarians and staff from other units? (Faculty Fellow surveys and interviews)
 3. What other campus-wide initiatives or collaborations have been spawned or enriched by the Mellon Faculty Fellows for Undergraduate Research initiative? (Mellon staff interviews, academic partner surveys, Faculty Fellow surveys and interviews)
- C. What elements are needed to effectively support course redesign?
1. What types of support did Fellows solicit from Institute staff, their I-Team, and other Faculty Fellows during the summer Institute and subsequently during their implementation of their redesigned course? (Faculty Fellow interviews and surveys, academic partner surveys, project staff interviews and records)
 2. What support did I-Teams and other partners proactively offer to Faculty Fellows? How did I-Teams work together to support the various redesigned courses?
 3. Were there additional types of support that Fellows wished had been provided? (Faculty Fellow interviews and surveys)
- D. What characteristics are present among the instructors and the environments in cases where research assignments in redesigned courses have been sustained?
1. What types of research assignments in redesigned courses have been sustained? Do these sustained assignments have common characteristics or are they linked to particular course features, departmental contexts, or to educational, personal, or professional goals of the Faculty Fellows implementing them? (Faculty Fellow interviews and surveys, course syllabi)
 2. What suggestions do Faculty Fellows have for sustaining and extending the initiative to other faculty on this campus and to other institutions? (faculty interviews)

Objective 3: Impact on student learning

- A. What are students' perceptions of the value of research and research assignments?
1. What types of knowledge and skills relevant to the use of libraries and library services do students feel they have acquired through the research assignments and supportive activities in the redesigned Mellon courses?

What library resources are they now aware of? What do they now know how to do with those resources? (Mellon-related student course evaluation and surveys, student interviews)

2. What other research skills do students feel were enhanced by the research assignments? (student video and audio interviews, student surveys)
3. In what ways and to what extent do students feel their understanding of course material was enhanced by the research assignment(s)? (Mellon-related course evaluations student video and audio interviews)
4. How satisfied are students with various aspects of the implementation of the research assignment(s) in their course, matters such as the timing, instructions, support, and feedback given to them?

B. What are instructors' perceptions of the impact of research assignments on student learning?

1. What types of knowledge and skills relevant to the use of libraries and library services do instructors feel students acquired through the research assignments and supportive activities in their redesigned Mellon courses? What library resources are they now aware of? What do they now know how to do with those resources? (Faculty Fellow surveys and interviews, GSI surveys or interviews)
2. What research skills do instructors feel were enhanced in their students through the research assignments? (Faculty Fellow surveys and interviews, GSI surveys or interviews)
3. In what ways and to what extent do instructors feel students' understanding of course material was enhanced by the research assignment(s)? (Faculty Fellow surveys and interviews, GSI surveys or interviews)
4. In what ways did the design of the particular research assignment(s) in their course include or not include elements that faculty and GSI's feel make for productive course assignments? (Faculty Fellows interviews and surveys, GSI surveys, GSI/reader focus groups)

C. What types of student learning assessment did faculty, GSI's, and project staff consider successful/effective/useful for research assignments?

1. What support structures are helpful or necessary for assessing undergraduate student learning in research assignments? (Faculty Fellow interviews)
2. What techniques did instructors make in large enrollment classes to enable them to assess the quality of students' work on research assignments? (Faculty Fellows surveys and interviews, Faculty Fellows course assessment plans and statements of change (from Institute), products from assessment classes (e.g. assignments, rubrics, learning outcomes, gradebook exports), assessment materials used in subsequent iterations of course or instructors' other courses)
3. What recommendations do faculty, GSI's, and assessment support staff have for improving assessment of student learning of research skills? (Faculty Fellows interviews, GSI surveys or interviews, project assessment support staff interviews and reports)

D. What obstacles impede or prevent faculty from incorporating effective assessment of students' research and information literacy skills into their courses?

1. What obstacles have Faculty Fellows reported in trying to implement various types of formative and summative assessment of research and

information literacy skills in their classes? (Faculty Fellows interviews and surveys)

2. What obstacles have been highlighted in other discussions of assessment of research-based learning (e.g., in the e-Berkeley symposium) or in the observations of staff facilitating the Mellon individualized assessment project? (Notes from 2005 e-Berkeley symposium, report on Mellon assessment project)

E. In what ways do student information-seeking behaviors and use of research materials change after exposure to the courses taught by Mellon Faculty Fellows?

1. In addition to what students, faculty, and GSI's report about knowledge and skill development, to what extent do students demonstrate competency in information-seeking and the use of research materials after experiencing the course redesigned by the Mellon Faculty Fellow?
(performance assessment on research assignments for each class, hopefully employing a common rubric as well as whatever else the faculty fellow designs and carries out)
2. How do the responses of students in Mellon redesigned classes about the library research skills and practices and their satisfaction with library resources and assistance compare to that of other undergraduate students at UC Berkeley? (student surveys, UCUES data)