1997

Student perceptions of general education at a comprehensive university and implications

Kenneth E. Nuss
University of Northern Iowa

Copyright ©1997 Kenneth E. Nuss
Follow this and additional works at: https://scholarworks.uni.edu/etd

Let us know how access to this document benefits you

Recommended Citation
https://scholarworks.uni.edu/etd/782

This Open Access Dissertation is brought to you for free and open access by the Graduate College at UNI ScholarWorks. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
STUDENT PERCEPTIONS OF GENERAL EDUCATION
AT A COMPREHENSIVE UNIVERSITY
AND IMPLICATIONS

A Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved:

Dr. Greg Stefanich, Chair
Dr. Daryl Smith
Dr. David McCalley
Dr. Dale Johnson
Dr. Sharon Smaldino

Kenneth E. Nuss
University of Northern Iowa
December 1997
ACKNOWLEDGEMENTS

The completion of this milestone in my professional life provided time for reasoned, and at the same time emotional, reflection on what compelled me to complete this dissertation. Students came to mind. I thank those hundreds of my current and previous students who have spontaneously granted my honorary doctorate simply because I taught their undergraduate courses with a focus on developing their passion for learning. I owe them this dissertation.

I also thank scholars who have contributed to my intellectual growth. First, my partner in life and in scholarship, Sherry, from whom I learned that academics often earn doctoral degrees by calling upon the talents of others at least as skillful as themselves. Secondly, I acknowledge the friendship of Dr. Dorothy Brecheisen with whom I have reflected on every aspect of good teaching that either of us could imagine.

I commend Dr. Greg Stefanich for his commitment to the doctoral program at UNI. Finally, I thank the remaining members of my committee, Drs. David McCalley, Dale Johnson, Daryl Smith, and Sharon Smaldino, for reading the dissertation and for questioning whether I really meant what I said.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>The Meaning of General Education</td>
<td>6</td>
</tr>
<tr>
<td>Perspectives on General Education</td>
<td>9</td>
</tr>
<tr>
<td>The Role of General Education Science in an Integrated Core</td>
<td>11</td>
</tr>
<tr>
<td>General Education Versus Liberal Education</td>
<td>12</td>
</tr>
<tr>
<td>Method</td>
<td>20</td>
</tr>
<tr>
<td>Organization of Future Chapters</td>
<td>27</td>
</tr>
<tr>
<td>II. STUDENTS' PERCEPTIONS</td>
<td>29</td>
</tr>
<tr>
<td>The Purpose of General Education</td>
<td>30</td>
</tr>
<tr>
<td>Preparing a Well-Rounded Individual</td>
<td>30</td>
</tr>
<tr>
<td>Helping Students to Determine Their Future</td>
<td>34</td>
</tr>
<tr>
<td>The Nebulous Origin of Purpose</td>
<td>37</td>
</tr>
<tr>
<td>The Purpose of Liberal Education</td>
<td>39</td>
</tr>
<tr>
<td>Students Guess the Meaning of Liberal Education</td>
<td>39</td>
</tr>
<tr>
<td>Students Recognize Liberal Arts as Part of Their Degree</td>
<td>41</td>
</tr>
<tr>
<td>Liberal Arts as Broad Studies—Like General Education</td>
<td>42</td>
</tr>
<tr>
<td>Student Attitudes and Motivation</td>
<td>47</td>
</tr>
<tr>
<td>Students Have to Take General Education</td>
<td>48</td>
</tr>
<tr>
<td>Students Take General Education to Get the Degree</td>
<td>52</td>
</tr>
<tr>
<td>Not as Important as Major Classes</td>
<td>53</td>
</tr>
<tr>
<td>Students Do Not Value General Education</td>
<td>54</td>
</tr>
<tr>
<td>Grades Motivate Students</td>
<td>56</td>
</tr>
<tr>
<td>Imagining a More Motivational General Education Curriculum</td>
<td>58</td>
</tr>
<tr>
<td>Good and Bad General Education Courses</td>
<td>61</td>
</tr>
<tr>
<td>Good General Education Courses Connect to Real Life</td>
<td>62</td>
</tr>
<tr>
<td>Good General Education Courses Stimulate My Interest</td>
<td>66</td>
</tr>
<tr>
<td>Good General Education Courses Do Not Consume Excessive Time or Energy</td>
<td>69</td>
</tr>
<tr>
<td>Good General Education Courses Stimulate Learning</td>
<td>71</td>
</tr>
<tr>
<td>Bad General Education Courses Reflect Large Class Size</td>
<td>71</td>
</tr>
<tr>
<td>Bad General Education Courses Suffer Due to Large Block Scheduling</td>
<td>79</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>II. Bad General Education Courses Coddle Student</td>
<td>80</td>
</tr>
<tr>
<td>Bad General Education Courses Encourage Technical Learning</td>
<td>83</td>
</tr>
<tr>
<td>Good Professors and Bad Professors</td>
<td>83</td>
</tr>
<tr>
<td>Good Professors Understand Students</td>
<td>84</td>
</tr>
<tr>
<td>Bad Professors Destroy Student Motivation for Learning</td>
<td>91</td>
</tr>
<tr>
<td>Professors Do Not Like to Teach General Education</td>
<td>96</td>
</tr>
<tr>
<td>University Faculty Do Not Value General Education</td>
<td>96</td>
</tr>
<tr>
<td>Professors Prefer to Teach Courses in Their Specialty</td>
<td>98</td>
</tr>
<tr>
<td>Professors Assume Students Do Not Care</td>
<td>100</td>
</tr>
<tr>
<td>The Role of Advising for General Education</td>
<td>101</td>
</tr>
<tr>
<td>Some Students Fail to Receive Good Help Selecting Courses</td>
<td>101</td>
</tr>
<tr>
<td>Orientation Sessions Provide Advisement</td>
<td>101</td>
</tr>
<tr>
<td>An Academic Advising Center as a Resource for Students</td>
<td>104</td>
</tr>
<tr>
<td>Family Members Play a Minor Role in Advisement</td>
<td>105</td>
</tr>
<tr>
<td>Formal Faculty Advising Becomes a Nightmare for Some Students</td>
<td>107</td>
</tr>
<tr>
<td>Faculty Advisors Do Not Care Which General Education Courses Students Take</td>
<td>114</td>
</tr>
<tr>
<td>Professors Other Than Advisors Sometimes Advise Students</td>
<td>116</td>
</tr>
<tr>
<td>Students Believe Advisors Can Tell Them the Value of One Course Over Another</td>
<td>116</td>
</tr>
<tr>
<td>Students Recognize Some Good Advisors</td>
<td>117</td>
</tr>
<tr>
<td>Some Students Confidently Choose Their Own Courses</td>
<td>119</td>
</tr>
<tr>
<td>Selecting General Education Courses</td>
<td>120</td>
</tr>
<tr>
<td>Looking for &quot;An Easy Course That Fits My Schedule&quot;</td>
<td>120</td>
</tr>
<tr>
<td>Students Select Courses Which Are Interesting</td>
<td>125</td>
</tr>
<tr>
<td>Vocational Interests Determine Student Choices</td>
<td>126</td>
</tr>
<tr>
<td>Students Select Courses Because They Fit Their Schedules</td>
<td>126</td>
</tr>
<tr>
<td>Student Select Courses Based on the Professor</td>
<td>128</td>
</tr>
<tr>
<td>Students Select Courses Their Friends Liked</td>
<td>129</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>II.</td>
<td></td>
</tr>
<tr>
<td>Students Select Courses Due to The Important Subject Matter</td>
<td>131</td>
</tr>
<tr>
<td>Students Select Courses Because They Represent a Requirement for Their Degree</td>
<td>132</td>
</tr>
<tr>
<td>Student-Generated Lists in the Dorms Help Students Select Courses</td>
<td>133</td>
</tr>
<tr>
<td>Scientific Literacy.</td>
<td>136</td>
</tr>
<tr>
<td>Scientists Think and Live Differently Than Do Students</td>
<td>136</td>
</tr>
<tr>
<td>Students Learn to Think Like a Scientist</td>
<td>138</td>
</tr>
<tr>
<td>Students Remain Unclear About the Meaning of Scientific Literacy</td>
<td>140</td>
</tr>
<tr>
<td>The Long-Term Influence of General Education on a Student's Life</td>
<td>142</td>
</tr>
<tr>
<td>General Education Increases Student Awareness Beyond a Narrow Focus in Their Specialty</td>
<td>142</td>
</tr>
<tr>
<td>General Education Teaches Students About Citizenship</td>
<td>148</td>
</tr>
<tr>
<td>General Education Changes Student Behavior</td>
<td>150</td>
</tr>
<tr>
<td>Some Students Relate General Education Experiences to Their Vocation</td>
<td>154</td>
</tr>
<tr>
<td>Some Students Feel Ambivalent About the Effect of General Education on Their Lives</td>
<td>155</td>
</tr>
<tr>
<td>III. A SYNTHESIS OF STUDENT PERCEPTIONS</td>
<td>158</td>
</tr>
<tr>
<td>The Purpose of General Education</td>
<td>158</td>
</tr>
<tr>
<td>Liberal Education</td>
<td>162</td>
</tr>
<tr>
<td>Student Attitudes and Motivation Toward General Education</td>
<td>167</td>
</tr>
<tr>
<td>Rating General Education Courses</td>
<td>170</td>
</tr>
<tr>
<td>The Issue of Good and Bad Professors</td>
<td>174</td>
</tr>
<tr>
<td>Faculty Fail to Value General Education</td>
<td>177</td>
</tr>
<tr>
<td>The Problem of Receiving Good Advice</td>
<td>180</td>
</tr>
<tr>
<td>The Dilemma of Choosing General Education Courses</td>
<td>183</td>
</tr>
<tr>
<td>The Search for Scientific Literacy</td>
<td>184</td>
</tr>
<tr>
<td>Long-Term Benefits of General Education to Students</td>
<td>185</td>
</tr>
<tr>
<td>IV. THE ROLE OF THE COMPREHENSIVE UNIVERSITY</td>
<td>187</td>
</tr>
<tr>
<td>The Conflict Between Teaching and Research</td>
<td>188</td>
</tr>
<tr>
<td>The Conflict Between Scholarship and Mission</td>
<td>196</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>IV. The Conflict With Hiring Faculty From Research Universities</td>
<td>202</td>
</tr>
<tr>
<td>The Conflict Between Vocationalism and General Education</td>
<td>206</td>
</tr>
<tr>
<td>Advising</td>
<td>207</td>
</tr>
<tr>
<td>Summary</td>
<td>209</td>
</tr>
<tr>
<td>V. CONTRIBUTIONS FROM STUDENT PERCEPTIONS TOWARD A MORE IDEAL GENERAL EDUCATION</td>
<td>211</td>
</tr>
<tr>
<td>Focussing the Distinct Purpose of General Education</td>
<td>217</td>
</tr>
<tr>
<td>Student Motivation</td>
<td>219</td>
</tr>
<tr>
<td>Good and Bad Professors</td>
<td>220</td>
</tr>
<tr>
<td>Faculty Who Fail to Value General Education</td>
<td>221</td>
</tr>
<tr>
<td>Advising</td>
<td>222</td>
</tr>
<tr>
<td>Class Size</td>
<td>224</td>
</tr>
<tr>
<td>The Long-Term Benefits of General Education</td>
<td>224</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>226</td>
</tr>
<tr>
<td>APPENDIX A: GENERAL EDUCATION REQUIREMENTS</td>
<td>231</td>
</tr>
<tr>
<td>APPENDIX B: INTERVIEW PROTOCOL</td>
<td>234</td>
</tr>
</tbody>
</table>
STUDENT PERCEPTIONS OF GENERAL EDUCATION
AT A COMPREHENSIVE UNIVERSITY
AND IMPLICATIONS

An Abstract of a Dissertation
Submitted
In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Kenneth E. Nuss
University of Northern Iowa
December 1997
ABSTRACT

Using a case study method, I investigated how students negotiate their way through the general education program at a middle-western comprehensive university, and consequently I increased my understanding of the student perspective of this portion of their undergraduate curriculum. From 34 semistructured qualitative interviews with general education science students, I discovered that they could articulate only a dim notion of the purpose of general education. I also became aware that the university structure failed to clearly communicate to students that the faculty values the general education curriculum.

The following themes for further analysis emerged from the student interviews: the purpose of general education, the purpose of liberal education, student attitudes and motivation, good and bad general education classes, good and bad professors, professors who do not like to teach general education, the role of advising for general education, the selection of general education courses, scientific literacy, and the long-term effect of general education on a student’s life. I then synthesized these student perceptions within the context of related literature.

Utilizing this literature, student perceptions, and my own reflective journal, I explored several conflicts which I believe contribute to many of the perceived problems with
general education at a comprehensive university. These included the conflict between teaching general education and the research ethos, the conflict between faculty scholarship and university mission, the conflict with hiring faculty from research universities without previous teaching experience, and the conflict between vocationalism and general education which includes the problem of advising.

Finally, I offered my own vision of a more ideal general education curriculum, including a university-wide focus on the distinct purpose of general education that uniquely serves the needs of students. I described the necessity for student motivation within general education classes which emanates both from the stated university mission and from committed faculty. I also commented on the self-defeating effect of faculty who undermine the university's value for general education by suggesting that other portions of the undergraduate curriculum represent a more important focus for student efforts.
CHAPTER I
INTRODUCTION

I began this research with the belief that the stories told by students describing their own undergraduate experiences provide significant insights that will focus the efforts of educators who care to improve undergraduate instruction. My specific purpose evolved into a quest to investigate how students negotiate a series of general education courses at a medium-sized (over 10,000 students), middle-western university and to understand the student perspective. Elliot Eisner inspired my approach when he suggested that "educational connoisseurs" ask students the question, "What is it like to be here?" (1991, p. 72).

Several previous reports on research conducted at many different institutions focus current efforts toward reform of general education (Boyer & Levine, 1981; Gaff, 1983; Miller, 1988). Gaff and Davis (1981) examined student views and found that students valued a broad general education as opposed to a specialized general education. Gaff (1983) specifically called for qualitative research that "embraces a vision of a better educational world, focuses on basic concepts, and forges explicit links to practice" (p. 90). I share Gaff's belief that educational reform rests on the enlightenment of faculty that comes from examining their own views on teaching and learning,
subjecting those views to critical analysis in practice, and considering alternatives that may help them move "toward an idealized vision of the system as it could be" (p. 89). This approach does not focus on conveying to university faculty the proper way to teach but encourages the examination of alternative ways to organize and integrate student learning as a part of the university curriculum.

My own previous experience, and thus my research perspective, includes 10 years of teaching various general education science courses. I maintain a particular interest in what curriculum specialists describe as scientific literacy. Most centers of higher education place a significant value on scientific literacy even though the concept may not be widely understood or consensually defined by those assigned to teach general education science. In any case, many educational leaders have reached the conclusion that Americans should become scientifically literate. At the undergraduate level, facilitating accomplishment of this objective falls to general education science instructors.

Rutherford and Algren (1990) described a scientifically literate person as one who

is aware that science, math, and technology are interdependent human enterprises with strengths and limitations; understands key concepts and principles of science; is familiar with the natural world and
recognizes both its diversity and its unity; and uses scientific knowledge and scientific ways of thinking for individual and social purposes. (p. ix)

College curricula reflect at least some of these values when general education programs require successful completion of a series of science courses as a criterion for granting an undergraduate degree.

Students do not always share these values. Instead students often perceive general education requirements as a series of courses that must be completed in order to graduate. They sometimes receive the diploma (credential) that signifies graduation from the university by passing courses designed by individual faculty members, yet they may not have mastered the intended outcomes of an integrated university curriculum.

Faculty may share the responsibility for student attitudes when they fail to convey to students the importance of a general education program to becoming an educated citizen. The reality of advancement and promotion in a university setting encourages individual faculty members to focus narrowly on their research and grant writing. This includes considerable time devoted to administrative responsibilities, the guidance of graduate students, and commitments to the department and the college. Not surprisingly, some faculty members focus the majority of their teaching effort on students interested in
their own area of expertise and, certainly, to those majoring in their own field.

This dissertation does not criticize these dedicated faculty who strive for excellence in both teaching and research by completing the tasks for which they were hired. Unfortunately, the general education program, under these circumstances, may become a low priority chore shared by faculty with time remaining in their teaching allotment during any particular semester. Due in part to a failure to address this problem, Boyer (1987) concluded that "many of the nation's colleges are more successful in credentialling than in providing a quality education for their students" (p. 2).

From the very first semistructured interviews that I conducted with general education science students, I recognized that many students were eager to talk about their experiences in all of their general education classes. Although I selected students from those currently or recently enrolled in general education science classes, I did not deliberately search for what others have called scientific literacy; rather, I tried to entice students to present their own description of what they gained from general education science courses. What poured forth from each student could be described as a flood of information.
that eventually helped to construct my understanding of student perceptions of general education.

The contribution of this study will depend upon my ability to interpret student perceptions of general education in such a way that others may understand and therefore benefit from some portion of the analysis. All university faculty rightly hold different perceptions of their own role in contributing to the lives of students. I believe that in a best case scenario this research will inspire a continuing dialogue within distinctive institutions as faculty examine the values of higher education. I do not intend for this case study to generalize, but I hope my own deeper understanding may cause others to reflect on their own interpretation of general education and to imagine a more ideal curriculum.

Throughout the study, I avoided confining my inquiry to information measured objectively. In fact, I conducted the initial interviews with extremely open questions, refining and redirecting my research as I began to see patterns in responses. A plan to evaluate the data emerged with the data itself, as is common in qualitative research (Krathwohl, 1989). With this plan, I retained the opportunity to observe what was important to the students and to evaluate what I found according to its meaning to the students.
The Meaning of General Education

Participants in this research verbalized the meaning of general education as the development of a well-rounded individual. These students apparently obtained this information rather indirectly from their instructors in general education classes and from the nature of the classes, which represent a broad base for their learning. They seldom remembered a specific discussion of the meaning of general education, either with their professors and counselors or in printed materials. A review of the historical literature concerning the development of the general education paradigm identified several reasons for this confusion.

Those who consider the outcomes of higher education often interchange the terms and, therefore, confuse the ideas of general and liberal education. General education refers to one specific part of the undergraduate program, teaching both civil responsibility and the value of arts, sciences, and humanities, often correcting for the narrow concentration of a professional or occupational curriculum (Boyer & Levine, 1981; Kanter, Gamson, & London, 1997). Liberal education includes the whole college experience—general education, the major, electives, and non-classroom activities (Boyer & Levine, 1981). It follows that a
vocational approach to education would lack the breadth
that general education adds to a liberal education.

Gaff (1983) summarized the distinctions made by many
research studies in describing the concept of general
education. He concluded that a diverse faculty with
individual prejudices and values rarely will agree on any
definition of general education. Gaff also concurred with
Boyer and Levine's (1981) description of a breadth
component of the curriculum which differs from a major or
free electives. He realistically acknowledged that
enigmatic descriptors such as "core" and "distribution
requirements" will oftentimes replace traditional general
education terms. For Gaff, general education has become
simply the portion of the curriculum required of all
students.

Peterson (1969) described content, or lack of it, as
the unifying pattern historically defining general
education. At Chicago in the 1930s, Columbia in the 1940s,
and Harvard at the end of World War II, distribution
requirements as studied by specialists were replaced by
courses expressed in terms of developing characteristics of
the mind. These abilities included thinking effectively,
communication, making relative judgements, and
discriminating among values (Harvard Committee, 1945;
Peterson, 1969). In common with the Carnegie Foundation
for the Advancement of Teaching (1977; see also Boyer & Levine, 1981) definition of general education, these universities chose learning skills as a focus, admitting that, for most students, knowledge suitable for truly liberal education extends beyond the grasp of most institutions and their constituents. They hoped to prepare students for the uncertainties of the future rather than providing necessary content in preparation for a profession.

Some faculty and administrators deliberately align the curriculum with the vocational side of a liberal education, concluding that all aspects of an education should serve the major when possible. Critical theorists suggested that business and corporate interests destroy the integrity of a general education and that they impose their ideology when they devalue free thinking and the opportunity to discriminate among values (Apple, 1990; Aronowitz & Giroux, 1993; Shor, 1996). To these theorists, knowledge represents cultural capital and the university degree a credential, both of which signify that students have the social skills to negotiate their way through a bureaucracy. Although these theorists show the cynical side of higher education, their arguments appear remarkably similar to the way students in this study rationalized their academic progress through general education.
Perspectives on General Education

Although many previous studies have described general education curriculum reform, few have considered student attitudes toward general education. Gaff and Davis (1981) used survey techniques to measure student preferences and concluded, among other things, that general education courses failed to meet the expectations of many students.

Boyer and Levine (1981) described the mission of general education in the curriculum of higher education as confusing, enigmatic, and in some cases deceptive to students and faculty alike. These researchers used the metaphor of the "spare room" (p. 1) to characterize the relationship between the university and the portion of undergraduate curriculum called general education. They compared typical undergraduate curricula to a three-room house: one room for the academic major, one room for electives, and the third room for general education.

In this metaphor, no one disputes the purpose of the first room, the academic major. In this room, students specialize and develop the methods of inquiry within a discipline, under the proprietorship of the faculty. In the second room, students pursue electives according to personal preferences.

The third room (general education), similar to a spare room in many houses, remains vague as to purpose. It
belongs to no one in particular, neither faculty, students, nor administration. As the spare room of education, many acknowledge that general education contains the breadth of the curriculum, but beyond that agreement fades. Boyer and Levine (1981) concluded that "general education is the spare room of academia with no one responsible for its oversight and everyone permitted to use it as he will" (p. 3).

Boyer and Levine (1981) suggested that a successful general education program needs to have a recognized purpose of its own to maximize its contribution to collegiate study. They found that the unifying mission of general education, both historically and currently at many institutions, was "to help students understand that they are not only autonomous individuals, but also members of a human community to which they are accountable" (p. 22). These authors proposed that general education asserts that claim within the institution of higher education.

Boyer (1987) listed one goal of general education as assisting students to see connections which will broaden their perspectives. Students, however, described general education as something to "get out of the way" (p. 84). In fact, they were frustrated by subjects which would prevent them from concentrating on what they need to know to get a job.
Students who had attended classes with "great teachers," who modeled the ability to "link learning to contemporary issues," expressed enthusiasm for general education classes (Boyer, 1987, p. 85). Many students in Boyer's national survey recognized that an education should be more than a preparation for a job, but few students understood what it means to share and sustain academic traditions.

The Role of General Education Science in an Integrated Core

Non-science majors often meet a general education requirement by choosing a beginning course in one of the disciplines or by electing to enroll in a diluted version of a basic course designed for non-science majors (Boyer & Levine, 1981). Progressive general education science courses, they noted, emphasize the processes used in scientific inquiry and the applications that have led to technologies providing both good and harm to our society.

After completing the general education science sequence, curriculum developers expect students to recognize the interconnectedness of all forms of life. In actuality, students often simply learn science as a catalog of facts to be memorized abstractly.
General Education Versus Liberal Education

Miller (1988) also addressed connections that have coupled general education with the concept of liberal education. Writers define liberal education in various ways. According to Miller, the most common historical perspective of liberal education utilizes a look to the past, often in classical literature, for a common knowledge base.

Miller (1988) composed a comprehensive, conceptual, and historical review of general education in the United States, The Meaning of General Education: The Emergence of a Curriculum Paradigm. This volume disentangles the relation between general education and liberal education, two terms often confused or considered identical by university faculty and, thus, by students. Miller specifically concluded that general education developed in reaction to what some perceived as problems with liberal education and that a reexamination of the meaning of general education can address the challenges of higher education today. A synopsis of Miller's historical account follows.

Modern liberal education curriculum and practices reflect the university structure, formalized by the late nineteenth century and prevalent today, where the disciplines serve as administrative and organizational
units. Within the liberal traditions, these units look to the past where transmission of traditional and expanding foundational knowledge represent the purpose of the curriculum. Over time, the liberal arts faculty have become increasingly specialized and professionalized as the individual liberal arts became subjects of specialized research and professional preparation. Liberal arts for a university student means to study a small, perhaps exemplary, portion of the knowledge necessary to work within each discipline from scholars working in their own specialty. The liberal arts paradigm places the focus on the scholar.

Those universities that appeal to the traditions, pride, and prestige of the past for direction in today's curriculum may represent a liberal education. Course work for liberally educated undergraduates, often described as "fulfilling distribution requirements," entails studying in a number of different disciplines. Becoming a well-rounded individual could easily represent the outcome of this curriculum. In the common language of those who fail to examine the historical roots of the general education paradigm, these students may appear "generally educated" without fulfilling the specific objectives of a general education curriculum. In the historical sense, they receive a liberal education (Miller, 1988).
Today the disciplines pull the general education curriculum back toward liberal education because they focus on their own knowledge base without consideration for how an integrated, comprehensive curriculum might develop from its parts. New faculty members, hired directly from doctoral programs or postdoctoral research and experienced with little or no exposure to teaching pedagogy, often expect to teach a little of what they know to students in general education classes. These students experience a traditional liberal education curriculum when they receive the content knowledge of a discipline.

The general education curriculum movement developed during the 1920s as a pragmatic response to what critics such as Dewey and others described as elitist liberal education. The term elitist refers to the assumption that what a professor knows should automatically represent valuable knowledge to a student. Calling rather for useful knowledge which would lead to a fuller life in a richer democratic society, pragmatists hoped for student outcomes quite different from those resulting from the liberal arts curriculum.

Miller (1988) described two lines of thinking that contributed to the general education movement during the 1920s and 1930s. First, the humanist movement contributed the classical tradition of general education through the
programs of Meiklejohn at the University of Wisconsin and Hutchins at the University of Chicago. Humanistic ideas in this country focussed on freedom, progress, and individual values as applied to social ends. By reading classics, these early general education students learned to apply historical ideals of citizenship and human reason to their own experiences. Unfortunately, studying the past to reveal the present easily became corrupted into the traditional liberal education. Here, the discipline-specific and vocationally-oriented curriculum encourages students to study the past historically.

A second major influence on the development of general education, the instrumentalist approach, emerged from the progressive education movement and from the philosophy of pragmatism (Miller, 1988). Pragmatists claimed that individuals could change the future of their society. John Dewey applied the basic elements of pragmatism to education as instrumentalism. Dewey regarded scientific inquiry as the instrument to change the self, and the democratic society, to meet the future. To general education, Dewey added the postulate that democracy can thrive only with a democratically-educated populace.

The method of instruction where ends or outcomes, such as a flourishing democracy, emerged from the method of instruction, represented by democratic inquiry to see where
it leads, became known as the unity of ends and means. Wegener (1978) described Dewey's pragmatic or instrumentalist conception of science and knowledge as "modes of action" in that knowing and doing are inseparable as are theory and practice (p. 66).

Miller (1988) identified the following widely-held assumptions that characterized the basic paradigm of general education by the end of the 1930s:

1. General education is concerned with developing the relationship of the individual to the community in contemporary democratic society.
2. The needs of both education and a democratic society require a unity between educational aims and educational methods. . . . [E]ducation for democracy must be education by democracy.
3. General education is concerned with a specific society at a specific time and place.
4. General education has a fundamental commitment to education through direct experience.
5. General education is concerned with the present and the future rather than with the past.
6. General education begins with the individual and her or his needs . . . and general education must have a direct relationship with the community.
7. General education does not have an end outside itself [such as knowledge.] [It] is an ongoing, lifelong education. (pp. 106-109)

Probably one of the most important assumptions for disentangling the liberal education and general education paradigms comes from the second assumption above. The instrumentalist unity of ends and means outlined by Dewey provided a method for progressive general education. Although many of the curriculum revision plans after World War II called for the same educational outcomes as did the
general education paradigm, their method often failed to stress the relationship of individuals to democratic society. Strictly speaking, a proper general education course teaches a knowledge base only as it facilitates the current or future interactions of a student with a democratic society.

During the half-century after World War II, universities continue to struggle with two major products of the research ethos that can derail the general education curriculum paradigm. First, researchers necessarily specialize within their disciplines in order to focus for research productivity (towards publication) as a measure for their own advancement and promotion. Professionalization of the curriculum, the natural result of specialization of the faculty, represents the second major impediment to maintenance of the general education paradigm. Within disciplines, to which the faculty increasingly commit their energies, curriculum planners focus their top priority on the academic major. These courses prepare students for the narrow professional studies deemed valuable by the faculty to allow students to advance in the discipline.

Thus, the research ethos, especially in the sciences, encourages each new generation of faculty members to focus on their own productivity first and to teach the students
majoring in their own discipline second. Teaching courses in general education for non-major students represents another of the duties of the professor, ranking in importance somewhere among administrative responsibilities. The traditional liberal arts curriculum, with its emphasis on the foundational knowledge of the disciplines, best suits the agenda of these research-oriented faculty, because they teach what they know to non-major students rather than developing a certain method of instruction relevant to the general education paradigm.

Faculty redefine the nature of the course to suit their own needs at the expense of an integrated university curriculum developed around the needs of the students. Add to this conflict the long-held tradition that within each university the faculty determine the curriculum. What will discipline-centered, research-oriented faculty choose to teach in general education classes? The dilemma in question centers the focus on the outcomes of an undergraduate education within the unique mission of each university. To what extent shall each institution value the narrow preparation of students for a profession, and to what extent shall students acquire experience necessary to live in a democratic society by sampling within the disciplines? By equating their own version of a liberal education with general education, research-oriented
professors may rationalize the teaching of knowledge acquired in their discipline to general education students.

This conflict contaminates the general education paradigm whenever it goes unexamined (Boyer, 1990). With regard to this study, I have assembled student perceptions of one university's general education program. Curriculum planners might use this data to determine the degree to which the general education curriculum identifies its meaning to students.

Miller (1988) provided the following as a summary of the general education paradigm, derived from his historical analysis:

General education is a comprehensive, self-consciously developed and maintained program that develops in individual students the attitude of inquiry; the skills of problem solving; the individual and community values associated with a democratic society; and the knowledge needed to apply these attitudes, skills and values so that the students may maintain the learning process over a lifetime and function as self-fulfilled individuals and as full participants in a society committed to change through the democratic process. As such, it is marked by its comprehensive scope, by its emphasis on specific and real problems and issues of immediate concern to students and society, by its concern with the needs of the future, and by the application of democratic principles in the methods and procedures of education as well as the goals of education. (p. 5)

As I examine student perceptions, I do so with this description of the general education paradigm in mind.

Miller (1988) validates this approach:

If colleges and universities are to grapple seriously with the issues of general education, they must be
able to arrive at a common understanding to which faculty and administrators can agree, one that can be articulated to the students and can guide what happens in the classroom. This is essential to an effective general education program. (p. 181)

I note for emphasis a portion of this quote, "... one that can be articulated to the students ..." This clear articulation to the students should surface unmistakably in every student's description of a general education program.

Method

This case study initially attempted to discover student perceptions of personal progress toward what others (e.g., Rutherford & Algren, 1990) have called scientific literacy and to ascertain the meaning (if any) that such an endeavor has for undergraduates within a general education program at a medium-sized, middle-western university. I also investigated why students enroll in the courses they choose from a list of several alternative courses which fulfill their general education requirements (Appendix A). Finally, I pursued an interest in how students experience a general education curriculum one class at a time. All of these inquiries contributed to my understanding of student perceptions of general education.

To provide confidentiality for all involved, I substituted coded names for students, faculty, administrators, and the university, for which I have used Boyer's (1990) category of Comprehensive University:
These institutions offer baccalaureate programs and, with few exceptions, graduate education through the master's degree. More than half of their baccalaureate degrees are awarded in two or more occupational or professional disciplines such as engineering or business administration. All of the institutions in this group enroll at least 2,500 students. (p. 130)

Appropriate to this study, Boyer ascribed to comprehensive universities a unique opportunity to define their own distinctive mission. Many comprehensive universities record a teacher training history where the scholarship of teaching can remain a top priority in the mission to serve large groups of first-generation students. I deliberately avoid the use of specific information in this manuscript which would identify the institution where I gathered data or those individuals to whom I have promised confidentiality.

Differences between comprehensive universities and research institutions often focus on students. Research institutions can attract talented students and may provide an elite education, whereas comprehensive universities are less selective, often providing education for the masses (Kanter et al., 1997). Many of these students will become the citizens of middle America rather than the intellectual leaders of the nation. Graduates must become gainfully employed and responsible citizens. Faculty trouble over this distinction.
The faculty at some comprehensive universities feel compelled to develop a mission more in line with the research traditions at institutions perceived to maintain higher status. Contributing to this dilemma of mission at the comprehensive university, faculty recruitment naturally stems from doctorate-granting or research universities with a much more narrow mission. Thus, agreement on the mission of the comprehensive university represents a continuous source of uncertainty, often related to whether the comprehensive university should be distinctive or imitative of the more prestigious universities from which the faculty came (Boyer, 1990).

The meaning, the value, and the purpose of the general education program at any comprehensive university becomes entangled in these uncertainties. General education at comprehensive universities represents a curriculum with limited resources, over-extended faculties, and students with less academic preparation. And yet, universities can rightfully differentiate themselves from competitors using general education programs (Kanter et al., 1997).

Students describing their perception of what it is like to negotiate a degree program in a comprehensive university provide an important source of information for reflective faculty who struggle to untangle a sense of mission for their university. Only by refining the
collective faculty view of general education and its purpose within a well-defined university mission can the faculty reconstruct a more meaningful view of general education for their students.

With this goal in mind, I conducted 34 semistructured, in-depth, qualitative interviews during the fall semester of 1994 and the spring semester of 1995. In agreement with my own interests and purposes, I chose students currently or recently enrolled in general education science courses. These interviews provided students with the occasion to voice their own feelings and values about general education and to reveal their own learned meanings (Taylor & Bogdan, 1984). The qualitative interview enabled students to reveal their thoughts through flexible verbal accounts rather than in response to prepared, structured, and identically-worded questions. Taylor and Bogdan define in-depth qualitative interviewing as "repeated face to face encounters between the researcher and informants directed toward understanding informants' perspectives on their own lives, experiences, or situations as expressed in their own words" (p. 77).

The resulting interviews unfolded more as a conversation between two individuals with a common interest than as a question and answer session. The interview protocol (Appendix B) merely reminded me to cover many
topics, including teaching, testing, scheduling, advising, registration, scientific literacy, and personal reflection about the general education experience. I (the researcher) served as the research tool as I probed for a thorough understanding of the student's perspective which I now interpret and convey in a descriptive way. The taped and transcribed words of the participants represent my data.

Many of the research topics within the scope of general education emerged from "informant expressed needs" (Spradley, 1980, p. 18) which often appeared repeatedly in the student interviews. My interpretation, then, was not the test of hypotheses or the advancement of an existing theory of truth. In this study, reality represents what the general education student perceived as experience (Taylor & Bogdan, 1984). I attempted to understand on a personal level and to describe the actions of students that resulted from their belief systems about general education.

My research did not attempt to collect data from a random sample of student participants. I recruited students from both freshman- and senior-level general education science classes by simply appearing in their classrooms, presenting a synopsis of the purpose of my research, and then passing a sheet on which interested students could provide their names and phone numbers. Throughout this manuscript I code name the freshman course
"environmental science" (based on its content), and I code the senior-level course (also environmental in content) "senior seminar." For other courses and professors mentioned, I substituted generic names to maintain confidentiality.

Many students were eager to talk about their own general education experiences and those of their peers. In the following pages, I go beyond quantifiable measures to describe the intentions of students within the context of their actions (Glaser & Strauss, 1967; Spradley, 1980). I also compare my findings with the literature on general education, liberal education, and comprehensive universities.

Once identified, I called student participants who had expressed an interest in sharing their views, and I scheduled a one-hour, audiotaped interview. These interviews transpired in a conference room or a vacant science teaching laboratory in the building in which these students' general education classes convened. All interviews began as an informal conversation with the student, often related to the topic of why voluntary participation in this research appealed to them.

During and after each interview, I refined my questions and techniques as focus topics or themes emerged. At the close of the interview, I described to the students
"environmental science" (based on its content), and I code the senior-level course (also environmental in content) "senior seminar." For other courses and professors mentioned, I substituted generic names to maintain confidentiality.

Many students were eager to talk about their own general education experiences and those of their peers. In the following pages, I go beyond quantifiable measures to describe the intentions of students within the context of their actions (Glaser & Strauss, 1967; Spradley, 1980). I also compare my findings with the literature on general education, liberal education, and comprehensive universities.

Once identified, I called student participants who had expressed an interest in sharing their views, and I scheduled a one-hour, audiotaped interview. These interviews transpired in a conference room or a vacant science teaching laboratory in the building in which these students' general education classes convened. All interviews began as an informal conversation with the student, often related to the topic of why voluntary participation in this research appealed to them.

During and after each interview, I refined my questions and techniques as focus topics or themes emerged. At the close of the interview, I described to the students
what I thought I heard and asked them to comment on my response. After the students had left, I frequently dictated onto the interview tape additional notes or comments concerning the interview, and I added reflections to a personal journal.

After completing several interviews, I began to transcribe them into a printed record of the 34 interviews. Throughout the research, and especially during the transcription and analysis processes, I maintained the aforementioned reflective journal for recording my thoughts and documenting changes in my understanding of the student perspective. I often noted new questions for future interviews during this reflection and analysis. As major themes for the analysis emerged, I added them to a growing list, which I frequently refined and reorganized.

Students almost always expressed appreciation for my interest in listening to their views. Many of them reminded me that I could call them with follow-up questions. I did not conduct follow-up interviews with any of the students, however. Instead, I often pursued parallel topics with future participants to enhance my understanding.

Once I completed transcription of all tape recorded interviews, I audited the entire set of student interviews with printed transcripts in hand. This provided a time for
hand-correcting errors in the transcript, listening to all interviews for a third time, and number-coding the printed transcript according to themes I had chosen for that phase of the analysis.

Once I completed the coding, I began to read and analyze individual sections of each transcript marked with a particular code. Using a word processor, I chose useful quotations from each of the 11 themes which became units for further analysis. I came to recognize the method as a continuing inquiry in search of an understanding of the value and purpose of the general education curriculum to students and faculty alike. I invite readers with a common interest to explore the ideas and feelings these students shared with me, and through reflection, to search for a deeper understanding of the potential for enhancing a general education curriculum.

**Organization of Future Chapters**

Chapter II includes my interpretation of student perceptions of general education using the students' own words, transcribed from the interviews, as examples for the reader. I combined or eliminated some of the original themes showing substantial overlap. Subcategories for each new theme emerged during further analysis of student quotations, and these helped to organized the final account.
In Chapter III, I summarize the student perceptions of general education that resulted from my selective analysis of the interviews. I place the student perceptions of general education at the comprehensive university where I conducted my research into the context of the general education paradigm based on the historical accounts of Miller (1988) and others. In Chapter IV, I explore inevitable conflicts between the stated mission of a comprehensive university, its curriculum, and its faculty. In Chapter V, I summarize my understanding of the most valuable contributions of student perceptions of general education, and I imagine an ideal comprehensive university whose mission includes a general education curriculum with service to students as its focus. I close with a discussion of the value of this research to others who share a similar interest in improving general education.
CHAPTER II
STUDENTS' PERCEPTIONS

The first theme I chose to examine from the student perspective regarded the purpose of general education courses. I wondered what, specifically, students meant when they used the phrase "have to take" these courses? Also, who did students think valued general education such that all students "had to take" these courses? I found certain attitudes among students that were often substituted for their perception of the purpose of general education. Many students were obsessed with getting courses "out of the way." Others resorted to purely extrinsic motivation for their efforts to succeed. For instance, they did what they had to do to get an acceptable grade. For these students, the purpose for studying general education subjects was to maintain the grade point average (GPA) while completing the curriculum.

Some of these attitudes appeared so frequently during the interviews that I soon became convinced that students share their views with each other and probably pass them on from one entering class to the next, perhaps without much serious thought. Surely faculty attitudes toward general education must also contribute to those of students. Eventually I began to wonder how students might acquire a more positive attitude toward the purpose of general
education. I decided that general education must have a special meaning to those who named the program—a meaning something different from liberal arts. I asked, "What do students think is the purpose of general education?"

The Purpose of General Education

Preparing a Well-Rounded Individual

Perhaps the cliche most frequently cited by students was that "general education makes us well-rounded individuals." In fact, by persistent probing, almost any student would ultimately produce some form of this value statement. A few examples follow.

Well, they say they make us well-rounded individuals, and I think it really does. But it gives you a little bit of experience in everything. El,1

I think the purpose of general education is to provide you with a very basic set of education to make every guidance person's dream—the well-rounded person. I know a lot of students—and sometimes I do this myself—consider general education to be blow-off and z classes, that kind of thing. But at the same time it is exposing you to a different realm of knowledge than you have ever experienced before. I think it is important—especially at this age. E6,1

I feel that general education is set up so that we get a broad range of knowledge. I wouldn't normally take a science class unless it was required by the university. English, or anything like that. I am a business major, and I generally take business courses. I think it's nice to have to take these courses; yet it is a pain, too, because it's going to make me have to stay at the university longer. E7,1

My understanding of it is that it is just a basic background in liberal arts education so that you kind of get to take a little bit of everything. They are mostly introductory courses. You don't go over very much stuff or anything. I guess just sort of to make
sure that you graduate having taken a little bit of everything in addition to your major requirements . . . since you hear so much about when you change your job during your lifetime. You try to have a broad base to rely on other than your major. When you completely change your job, or whatever, you will not have to go back to school and start all over again. E11,1

I see my majors as being more important because that is what I will be studying in the future. I see my general education as good classes but more to help you expand your horizons, to help you learn a bit more in other fields. To help you become a complete individual, I guess. . . . I like the fact that I am getting a broad education. C6,10

In order to have some well-rounded knowledge, you have to know something about everything. You don’t need to know everything about everything— you can’t. Studying the basics of science gives me a better understanding of what it is to study science and why it is important—not necessarily exactly what it is that everybody studies, but why they study it, and why it is important. C9,3.

I guess in part it is kind of like the whole practical education that makes you a well-rounded individual. A good knowledge base. Hopefully it will help us decide what we want to deal with. Coming into college at 17 or 18, it’s kind of difficult to know what you want to do with your life. It’s a good way to field some other interests that you never even know that you have. To find out what you really want to do. C17,1

One student imagined general education producing an incrementally perfect person using the metaphor of an assembly line beginning in high school and extending until college graduation when you become a finished product.

In my personal education, general education emphasizes the things I’ve learned both in high school and on my own. I got lucky. I had some unusual courses in my high school that helped me out here, but I guess the other thing that it has done for me personally is that it has taken me deeper into what I have learned in high school. It deepens your general knowledge. It
almost takes on an assembly line feel. You have your humanities. Now you have your non-western culture component, et cetera. You walk off the assembly line this sanded, perfect person who is ready to face the world with all its troubles. E6,1

An older student (a 43-year-old counselor) saw the practical benefit of becoming a more well-rounded individual in a more specific way. He learned to accept diversity in people based on what discipline they use to define themselves.

I think that it helps me to realize that people coming in are going to be different. Any people I work with I have to work where they're at, not where I'm at. I'm going to work with people who like science, like history. They like other things, not just what brings them to see me. E10,1

Along with preparing the well-rounded individual, a few students hinted that general education might integrate various disciplines, providing connections or perhaps enhancing their major or providing them with a new perspective on their learning. "Awareness" is a common expression.

I would say [the purpose of general education is] awareness. I can honestly say that I learned a lot that I can use when I am teaching. It gives you a perspective on a lot of different issues. I can't say that I learned a lot of theories or principles, like I do in other classes, but I can say that I learned. C4,8

I know that everyone up here declares a major, but the one purpose of general education is not to have people just focussed on the things they do but to be aware of other things in the world--arts and music, sciences, English, sociology, psychology, whatever it might be. . . . They don't realize that after 5 years of really pursuing this job they are really burned out, so they
need to have a background or appreciation of arts and
music, or being able to read the newspaper or
something, as an out so they won't get burned out in
their job and become a statistic. E13,1

To expose students to a variety of different fields.
Different ways of looking at things they may not have
had before. To give them a broader background for
making their decisions. . . . It exposed me to a lot
of new ideas, new ways of thinking, and parts of the
past that are interesting to me. [General education]
helps you think about some things that you wouldn't
think about before, and things that our society does--
effects that it may have on us in the future. C6,1

Other students saw little connection between one class
and another.

Every sphere . . . everything has been pretty much
different. One really hasn't been interrelated with
the other. C18,6

This student seemed disappointed in the inability to make
connections between classes. I believe the disappointment
was related to interconnections between disciplines that
students do not necessarily make on their own. Breadth may
not seem as useful in the absence of interconnections.

A few students stated some rather cynical reasons for
taking general education. I believe that students will
benefit most from a university curriculum which maintains
clearly-stated outcomes based on the benefits expected by
curriculum designers. In the following case, the student
apparently either did not hear the reason for taking
general education classes, or it was not provided.

I don't know that anyone ever told me that this is
what general education is supposed to do, or this is
what it is aimed at. . . . you just accept that you
have to take them and then you start in. . . . Sometimes I think that they just throw all these education classes at you because this is the way they make money--you know? (laughs) Nobody ever explained that to me. I guess I just formulated it on my own. C18,1

That universities would deliberately use general education to make money seems at first an unlikely thought to this student, but if many of the other students quoted above came to their understanding of the purpose of general education based on an intuitive guess rather than a deliberate description of its positive influence on their lives, there is room for concern. In that case, the joke that universities use general education to make money for other programs becomes a sad reality. General education credits often represent more than one-third of the credit hours needed to get a university degree (Boyer, 1987). Extended discussions with students about the benefits of becoming a well-rounded individual seem prudent for all faculty if the university plans this level of commitment.

Helping Students to Determine Their Future

Both students and their parents often think of the college years as a time to define the student's interest or aptitudes and to choose a major which will presumably lead to a career. For many students, the decision comes only after sampling a few general education courses that seem to acquire that purpose. Students report that some university departments even encourage students to take their general
education courses before they get into the work of the major, perhaps reinforcing this perception of the purpose of general education.

In this first case, general education may be used as a filter to determine a student's prospective major. I observed that these students often search for a meaning for general education as it relates to their major, as if they know there must be a connection understood by others with more experience.

I took Russian studies, and it really generated a lot of interest in that area. Since I am a political science/international relations major, I decided to concentrate my international relations area on Russia. E8,1

I think it probably is there to make us realize there is something in every different area to learn. And to make sure that we understand there are different areas, and there are other things--maybe we're just [as] interested in--maybe sometimes to change our interest and to change our major. E10,1

I feel that it probably gives you a multifaceted view of all of the different areas you could study or major in. They want to get you acquainted with all of the different areas of education so you can decide where you want to go from there. E12,1

I think it should be required that everyone take 4 years of general education before they choose a major. E12,14

I think general education is a good base for college students to start off with. By having to take classes, they are exposed to subjects that they wouldn't normally take. In this case, they might find that they are interested in it. C3,1

That's how I got my major. I found out that those were the classes of interest to me. C12,2
For some students, general education prepares you for life beyond graduation. For these students, the unknown represents something in life that the faculty must know and should responsibly pass on.

[The faculty] are here to help you learn, but I also think there should be something in general education to help prepare you for what's out there. Sure, our minds have been open to education, but this is also life. It's pretty scary out there. E12,6

I think it makes people realize that there are other areas out there besides in their majors. I think some students come in and just focus on their majors. They don't see that there are other things out there. C1,1

Some students think of taking a broad course sequence early in their course work in terms of what they "like" instead of what they might need to know in order to make connections between disciplines.

It will give me a broader view. Maybe you find out something that you like but you didn't know because you were over in one college. You went to the other one for the general education course. You find out that you like something that you really didn't realize. E14,2

We come in with no idea [about our major]. I think that by sampling of the different courses you find one that really grabs you, so you can get focussed on that. E13,8

Sometimes the critical contribution made by a general education class appears as simply the time to decide.

I would say that it gave me time [to decide on my major]. It gave me time to figure out what I wanted. C4,1

One student described her 18-year-old son who was coming to college soon. She knew why she was in college,
but she felt her son needed the time to develop his options.

My 18 year old is looking at going to college this fall. He has no clue about what he is going to do. Even if he did have an idea, he wouldn’t know a lot of his options if he didn’t have to take a lot of the general education. He wouldn’t know what else is out there if he was focused on just one thing. . . . He needs to broaden his perspective a little bit to see.

The Nebulous Origin of Purpose

Students described the origin of their understanding of the purpose of general education in nebulous ways aside from producing well-rounded individuals. A common purpose statement for general education, with which students demonstrated universal familiarity and for which they could identify a distinct origin, remained conspicuously absent. Few students can remember a time or a place where they learned the purpose of general education.

You take [general education] because the university, and the state, and everyone who is an adult, thinks you need to. I guess that I am the kind of person who believes that adults, and people older than me, must have a good reason for wanting me to take it. Especially with my dad. He’s always told me that these things are important and, see, he never really went to school, and he learned all of it the hard way, I guess. He was always telling me that I shouldn’t always take it for granted, and that I should try to learn as much as I can because you never know when, later in life, you are going to need it. I think that as I get older I realize that they have tried to teach me. The things that my high school teachers and my professors have tried to teach me--I see why a little bit more. I guess especially with my high school teachers. They always told me “you will need this in college.” Now I am like, “Maybe I should have listened.” E1.9
Kind of just logically thinking about it. Discussing it with friends and stuff. We talk about why we have to take it. Other general education courses have given us an overview of why we have to take it. E7,1

I sort of just picked it up over the years and that sort of thing. Just like reading the brochures that the university gives you and all that. E11,1

When I asked whether professors told them the purpose of general education, students could seldom remember any such message.

R: It's really my own idea. Nobody really told me about it.
Q: You took humanities. Did they talk about the purpose of general education there?
R: Not that I can recall.
Q: In any other general education courses, did they ever talk about the purpose?
R: Not that I can remember. C3,1

Other students provided similar responses, when asked about formal discussions of the purpose of general education.

No, not really. It's almost like a silent understanding that that's what you are here for. It's, "I'm here to give you a taste of my field." That's the feeling that I got. E6,1

I eventually understood this statement to mean that, in the student perspective, each individual instructor knows content knowledge that should be valuable to all students. This represents general education. I am not surprised that students would come up with this rather simplistic notion about general education, but if the notion comes to students from individual instructors who teach the general
education curriculum, it might rightly wave red flags for those who value general education for other purposes.

The Purpose of Liberal Education

From the very first interviews conducted, I began to notice that students closely related general education to liberal education and liberal arts. I soon incorporated the discussion of liberal arts and its meaning to students into the interview protocol. Students expressed a weak understanding of the meaning and purpose of liberal education, but they generally seemed sure that a liberal education represents the same thing as general education. I soon began to wonder why the university system might fail to convey to students in a convincing manner the meaning of what we offer them.

Students Guess the Meaning of Liberal Education

Whenever the terms liberal education or liberal arts arose during an interview, I asked the student to describe what those terms meant from a personal perspective. Most students were willing to guess. Often they described general as opposed to specific knowledge that they might receive in their major courses.

Q: What does liberal arts mean to you?
R: I don’t know. I really don’t. It’s thoughts stuff. Stuff that you think. Personal.
Q: Did anybody ever tell you?
R: No. C17,7

I don’t even know for sure. Just kind of a general knowledge of a lot of things. E8
Isn't that pretty much the idea of taking more courses to make you more well-rounded? The same thing [as general education], pretty much? If I decide to shift my emphasis to environmental law, then I already have a general understanding of that kind of material. If I want to focus on Russia, I have already had the classes to do that, and if I want to dance in my free time, I can do that. If I had to take all political science classes for 4 years, I think I would go crazy. This way I have some other classes to kind of balance me out. . . . It makes it easier for me to talk to people who are involved in other areas, also, which will be important if I ever go into politics. (laughs)

Q: When you graduate, what degree will you earn?
R: It will be a BA. [I'm] entering the master's program here.
Q: What does liberal arts mean to you?
R: I don't know.

Q: What does liberal arts mean to you?
R: To be honest with you, I really never got a good sense for that term. As far as I--to make an educated guess from what I have experienced, my liberal arts would be just a culmination of classes that are designed to give me a better look at where I am in my process--in my life and how these things are affected.

Q: What does liberal arts mean to you?
R: Just learning an understanding of cultures and people.

Some students envision the Bachelor of Arts Degree as one less challenging for some students.

Q: When you graduate you will get a BA in history. Does that have any meaning for you?
R: A BS sounds more sophisticated. I don't know if it is or not.
Q: What does liberal arts mean to you?
R: I don't know. Before I went to college, I always thought it meant the people that weren't really good at a whole lot of stuff, so they got a liberal arts degree. More broad. Less in the sciences and mathematics.

Q: What does a liberal arts degree mean to you?
R: I think it is more general. A lot of it deals with--I believe some science falls within liberal arts, and like history-type courses and politics. It is a broader field.
Q: You are saying, then, when you go to graduate school it may not be an advantage to have a broad background?
R: Yes. I think that. Especially in a science background, a lot of science background, a lot of science courses and a lot of experience. C1,6

Here, then, some students value a more narrow rather than a more broad background.

Students Recognize Liberal Arts as Part of Their Degree

Most of the students that I interviewed knew that they would receive a Bachelor of Arts Degree when they graduated, and they assumed that liberal arts had some meaning within that degree.

Q: What degree will you get when you graduate?
R: Probably a BA in political science.
Q: What does that mean to you?
R: I am not sure, to be honest.
Q: You talked about liberal arts before?
R: I guess that means that the most classes I took at [this university] were in political science, and at the same time I have taken classes in mathematics and social studies and science and all that sort of thing so that hopefully I am ready to get some sort of job. E11,11

I am not sure what liberal arts ever meant. It’s a degree. It’s what I worked for. It’s what I need to get out in the world and teach. C7,9

Q: When you graduate, you will get a BA. What does that mean to you?
R: Don’t know, but I went through a lot of schooling; that’s all that I know.
Q: It is a credential that...what?
R: That will let me make more money and be a more educated person, that I can basically go where I want to go.
Q: How will it help you make more money?
R: Because that's what the businesses look at—whether you have a degree or not. From what I have heard from all of the people that are out in the working world now, they don't even look at your GPA. E12,10

That's a degree with a broad scope—not particularly focussed on one area—arts, science, whatever... I don't know. E13,9

Q: What does liberal arts mean to you?
R: Actually, I know exactly what it means.
Q: Did you learn it somewhere?
Q: Yes, I did. We had the--there were 7 of them, and they were arts that were suited to a free man, as opposed to a slave, or as opposed to a woman. I know all these facts about liberal arts.
Q: Where did you learn them?
R: Music History, which I just took.
Q: What does that mean to you? Is general education related to the fine arts?
R: I think so, because the liberal arts—the only term I can think of is well-rounded. I hate that. A broad base. Things that are nice to know. E15,8

The following statement came from a bright, pre-law student.

Q: What does liberal arts mean to you?
R: That just happens to be what my major falls under. Liberal arts that sounds... 
Q: It doesn't have any specific meaning?
R: No. That sounds odd to me. That personally doesn't mean anything to me. E9,7-8

Liberal Arts as Broad Studies
--Like General Education

Most students equate liberal arts with a broad education in the same way that they believe general education makes you a well-rounded individual. They often imply that a liberal arts education deliberately prevents a
narrow focus. Some actually say that a liberal education provides a general education implying that they study generally in many areas as opposed to studying deeply in their major area.

Q: What does that mean to you—a bachelor of arts?
R: It means that I studied a lot of different courses. It has been a general education. It has not been an Associate Degree, where you study basically the same thing, or a Master’s Degree that focusses on one particular problem. It also means that you are trainable for just about any career that you end up in. You can learn. You can do it. There are certain careers that you don’t want—you are not interested in.

Q: When you think of the term liberal arts...?
R: I heard it a lot of times. I never thought about it. I’m not even sure I understand it. Just having a broad background in a lot of different areas instead of focussing in really tightly in one.

Liberal arts to me means like gen. ed. Kind of a broad topic.

R: Liberal arts is gen. ed. It is learning from a whole variety of areas. People call it holistic education. It is trying to learn something from every area so that you have some knowledge on every area.

Q: So liberal arts is the breadth?
R: Right.

Q: Tell me once more what a liberal arts attitude means to you.
R: I really didn’t get a good perception of this when I came to college. You really don’t talk about liberal arts that much when you are getting ready to go to college. As you start getting things, you hear liberal arts, and you think, “What?” And people say, “That’s general ed.” But liberal arts, to really have an idea what it means in a college setting, I think you have to go back in time, back to when specific programs were not that important, or nonexistent. The idea of going to college—the Greeks just wanted to learn. If you are going to a college or going to a university, basically you were there—it was more an
institution of wisdom. You backed off. You got a
good picture of everything that was going on. Not
only did you get a good knowledge base, you got the
ability to inquire.
Q: What do you do when you have a good liberal arts
education then?
R: In this world, you teach. It would be nice if
there was something else you could do. Someone with
an education in liberal arts will become some kind of
a teacher, or a scholar, or a reader. If you need a
college degree for a certain job, there would probably
be some kind of leadership tacked on to that, because
there is no reason why you couldn't learn everything
else on the job. C5,9

Q: What does liberal arts mean to you? Did anyone
ever tell you the answer to that question?
R: No. Everyone just says that you need to have a
liberal arts degree. It makes you a more well-rounded
person--more aware of the arts. You ask, "What do you
consider the arts?" and it's like, well, the
humanities... I have never heard anyone call
science or math a liberal art. I don't know why it
shouldn't be. For our gen. ed. program, I think it
should be considered a liberal art. C8,10

Q: What does liberal arts mean to you?
R: I guess that to me it is kind of like general
studies. You study a little bit of everything. You
go in depth for a few things...
Q: Is that different than gen. ed.?
R: I think—to me there would be a very slight
difference. In gen. ed., you take a little bit of
everything, where in liberal arts you would focus on a
few things here and there where you would learn a
little bit more in depth about a few things. But you
would still have the broad base. C9,9

Q: When you graduate you will have a BA in General
Studies?
R: Yes.
Q: What does that mean to you?
R: It means that I went to school and got a degree for
4 years that most people don't know what it is.
Q: What does liberal arts mean to you?
R: Having a broad knowledge. Having a good background
of different things. Being able to maintain a
conversation with an intellectual person about
different subjects. Not just being closed off to one
thing. I mean, if you went to pilot school and
learned to be a pilot, what else did you learn? Nothing. So somebody tries to have a conversation with you about art. You can’t contribute. C10,11

Q: What does liberal arts mean to you?
R: The only thing is that I was in liberal arts at [a community college] because I was getting my gen. ed.
Q: Liberal arts is the same thing as gen. ed.?
R: Yes. C11,7

A few students believe that liberal arts means obtaining knowledge unconnected to anything practical except the fact that others shared the knowledge.

Q: How about if I use that word liberal arts. What does that mean to you?
R: I think it means kind of like general education. You have a good background, enough to say that you know something about and that you can communicate back to someone else. Say, "Yes, I took a class in that, and I learned something. I learned this about that," saying that not only did you learn it, but you remember it. You can bring up that knowledge that you learned and communicate that with someone else.
Q: What does liberal arts mean to you.
R: You are referring to the general studies?
Q: Could be.
R: ... It is more focussed on the general aspects of studies--science, education, math, history. That type of thing. A variety. Sociology. I had a liberal arts degree at [community college]. There wasn’t any specific goal I was working towards. C15,7-8

Q: What does liberal arts mean to you?
R: That’s just when you take more of a wide range--not concentrating on one area of study. We don’t have a liberal arts program here, do we? We have the general studies, which I think is kind of like what that is. You are taking some psychology, some sociology, some sciences, some business, languages--the English department. Liberal arts is like general education, I guess, with just more hours in every one. That’s the way that I would say it. C16,7
One student confidently demonstrated a complex understanding of liberal arts as it relates to a major or a vocation.

Q: For many parents, it doesn’t matter what you study in college, as long as you get good grades. Is that liberal arts? Are there certain things that you need to know in our society?

R: It is a difficult thing to say, because colleges have to play a double role. They are technical institutes, and they are liberal arts schools. It would be nice to separate the liberal arts schools from the technical schools, but it is hard to do that because when we do that the liberal arts schools have a lot less students. More people are interested in job crafts. Liberal arts has its place. I don’t think a lot of people realize its importance.

Awareness and wisdom is something that the liberal arts schools teach, in my opinion. One of the examples is the scientist that develops the technology that hasn’t thought about the implications. All of a sudden the technical school product has devastating consequences. Nitroglycerine is one example. Nuclear fusion. Maybe we should have had someone in liberal arts to let us know what was going on with what we were doing.... A liberal arts education is going to put things into perspective, though. A major is going to allow you to do things. Liberal arts is going to allow you to see what you are doing and to put it into perspective with everything else.

A majors program is going to teach you what a technical school can teach you, with some possible exceptions. All in all, it is about the same thing. Liberal arts will give you a little bit wider view of what’s going on. Courses like humanities ask you where you came from and what you are doing here. Mathematics opens up an awareness to what’s going on. It is basically a language for us. Sociology, philosophy, social sciences say there are patterns to our behavior, even though what we are studying here is not a definite thing. C5,10-11

Rereading and analyzing all of these quotes made me wonder whether there exists a useful definition for a liberal education that faculty and thus students can agree upon and
how might this concept relate to what curriculum planners call general education?

**Student Attitudes and Motivation**

Whenever I talked to students, I noticed a unique and often unusual attitude that students project toward their general education curriculum. They often accept their major and their elective courses as the realm of professors who teach in their area of preference or expertise. Students seem to expect to work hard in these courses and to be rewarded, in competition with other students, using some formula generated by the professor. Almost all students have different expectations for their general education courses.

Most students expect that general education classes will be easier than "regular" classes. They also expect that these courses should take less time from their schedule in order to earn an acceptable grade. Students almost universally treat general education courses as less significant.

I became curious about the nature of these attitudes and motives—where they come from, how they are passed among students or from the faculty to the students, and what constitutes the meaning of these attitudes and values from the general education student perspective. I pursued this understanding by carefully attending to the words
students used to describe the general education experience. When I heard value-laden language during an interview, I asked students to describe more precisely what they meant by the language chosen. Their response often revealed a complex web of meaning that neither the student nor I had given much previous thought.

**Students Have to Take General Education**

Almost as if imposed as a punishment for a severe crime, students often remarked during an interview that they "have to take" general education. From the perspective of an entering freshman, more than 45 required credit hours must seem like cruel and unusual punishment. Actually the phrase "have to take" conveys a host of different meanings, depending on the context. I believe that understanding this student perception can enlighten curriculum developers. I cite a variety of examples.

You have the classes that I go into not looking forward to taking. I go into it with the attitude that I have to do well to keep the GPA up, but often I come out saying, "That was interesting." I think part of it in the class is kind of revelation: "Hey! This is interesting." And I end up learning something. C6,8

I am just upset because I don’t want someone to tell me that I have to take this, that they have limited the classes to only these 6 classes. I want to be able to choose for myself whether I want to take (a certain class). Or maybe there is a class that is not even included in the sphere one or sphere two. At [a private liberal arts school] I didn’t have to. [There, I was] pressured by my advisors, but I didn’t have to or I [wouldn’t] graduate. I don’t like that
idea. . . . It's that I don't want to be forced into it. E11,12

It's a general education class that we have to take--that whole attitude. It's required. If they don't do all their general education, they are not going to graduate. It's on the docket. I am going to go. I am going to sit there. I am going to get a minimal grade. C18,8

I am just upset because I don't want someone to tell me that I have to take this--that they have limited the classes to only these six classes. I want to be able to choose for myself whether or not I want to take environmental science or not. It's that I don't want to be forced into it. E11,12

I just know I had to take these classes to get on to my major's classes. . . . If you don't take them, you don't graduate, and I would like to graduate someday. So you take them, and you hope you can get over them within a couple of years so that you can really get into what you are interested in. . . . [A] lot of people had to take general education for two semesters before they even saw any of their major classes. . . . I would have gone crazy. [Sometimes] it was like which one [from the list] is going to be the least problem, or the most interesting to me . . . and none of them really interested me. C7,3

It is required of me to graduate from college. I mean, in a way it is like they are forcing you to take these classes. They give you just these little choices. . . . You are forced into it. . . . I think there needs to be a bigger variety of what courses you can take. So I think it is important, but you just need to go about it in a different way. C8,3

Science is my absolute worst subject. . . . I didn't want to have to take [science] and to have to pay to take classes that I know are going to drive me nuts. C10,1

They don't want to--you know, they might not be the best students at it. It's a matter of interest. . . . I don't think it is the grade that matters. I think it's just the fact that it is not of interest to them . . . and therefore they feel like they are wasting their time and money by taking it. C12,1
Some students receive a message from their high school teachers that they will "have to take" certain courses when they get to college. Certainly this realistic and well-meaning comment can provide a mind-set for future college students.

It's required. There are a few classes in general education that I wouldn't have taken necessarily. I remember in high school, even, they were saying "you will have to take all of these things." You know, take so many electives preparing you for other things you are going to take. Just like the sciences, for example. I took 5 years of science in high school because I knew I would have to take science here. Although my major is nothing to do with the sciences.

The following comments suggest that instructors should carefully explain the value and the purpose of general education science to students.

I am not a science person, at all. I am sure that, if they were not required, I would not have chosen to take them.

As with many other student quotations, this one speaks of an inability to convey the values of a discipline in the general education classroom.

One presidential scholar related the general education program to a liberal education. His perception showed that even private liberal arts colleges have begun to focus on the major. His unemotional summary speaks quite directly to those who value general education.

R: I could sum [general education] up in two words. "Nice try." It is the right idea, but the way that it is presented now, it just doesn't work...
first couple of years you [have to] take your general education courses. You get those out of the way . . . and move on for what you are here for. It is my impression that the general education courses take a lower-level, take a back seat to everything else, in general.

Q: What do you mean by "have to take?"
R: Well, basically to get out with a degree you are required to take forty some hours of general education. Until you pass all of those classes, you do not graduate from this university. I think the term "have to" pertains to any course that [students] are not interested in. Even major courses. . . . [Students] say "I have to" . . . because for some stupid reason this university is requiring us to take these classes, so I will go ahead and take it. . . . If the university wouldn't have required it, I wouldn't have taken it. C5,2

Many students speak of getting general education classes "out of the way." In some ways, it is almost as if the general education program represents an impediment to their progress through the important part of the university curriculum.

They are serious about getting that piece of paper, and to a certain extent, through college. Many women came for their Mrs. Degree. To that extent, they have goals that are very extraneous to learning. . . . [Senior seminar] is about getting out. I think it has a lot to do with senioritis, really. We just want to get out. I don't want to have to face this stuff anymore. E6,9

For many people, I know humanities is sort of like, "Take it, get it over with, forget it." I was fortunate to have a couple of very good instructors who made it very interesting. I wanted to be there. But humanities is such a broad area that you can make it more interesting. I guess you could with science, too. E8,7
**Students Take General Education to Get the Degree**

Students frequently commented that general education courses represent something you need to finish if you want to get your degree. This comment can expand to many meanings worthy of exploration. A pre-law student described it this way.

I think a lot of times students don't care about their general education. They really don't care. They just want to get a passing grade in it. . . . Just to get by, to pass so that they have their requirements, and it doesn't screw them up and their GPA requirements. E9, 6

Students feel as if others expect them to go to college, but they hope to receive something in return for their struggle with general education classes, such as a job or a role in society. If they do not feel they receive fair treatment, they become apathetic. This student may be correct in assuming faculty do not always understand student motives for attending college.

[Students] value getting through. The reason that you are going to school is so that you can get a good-paying job later on in life, and because society says you are supposed to go to school. I don't think that many people would be here if it wasn't expected of [them]. You are supposed to go. I probably wouldn't even be here if it wasn't expected of me. But you are supposed to go to college. You are from the middle class; you go to college. Maybe mom and dad are paying for it, and that is part of the reason or the only reason you are here. I think you are very passive in the system. You sign up for classes because someone told you to take something. You don't take a very active role in learning. If teachers do tell you stuff and you happen to remember it, that is nice and all, but you don't take it upon yourself to try and educate yourself.
When professors don't expect much from you—they are constantly giving examples like, "Yes, I know what you guys are doing all of the time." [They are] just sort of talking down to you. You are not on the same level as they are. Students are not actively participating in their education. I think that it all combines to produce students who really don't want to be here and really don't care. They are just apathetic. E11,8-9

When I asked students what accomplishment they will feel upon finishing their general education course, they sometimes answer in a tautology: "When I finish, my work is completed."

I can graduate. Before I started the class, that would have been the only answer, really. I really didn't want to take it. If I had it to do again, I don't know if I would or not. C9,9

I will be one step closer to finishing gen. ed. C7,10

Not as Important as Major Classes

Virtually all students agree that general education classes play a lesser role in their education than do classes taken in their major. Exploring this perception revealed some interesting, although not necessarily surprising, student attitudes.

I have to work on my major--I think [classes in my major] are more important. E4,6

I personally am not as serious about the class because it is a gen. ed. I guess I am more serious about my business [major] classes. I think that's the way it is with a lot of people. E7,4

R: My gen. ed. definitely will pull my GPA down.
Q. Typical of the students that you know?
R: Yeah. We don't put as much emphasis on gen. ed. I think that is [true] with all majors. My roommate is a music major, and she definitely puts in so much more
time on her music classes than she puts in on gen. ed. 
E7,6

Sometimes it’s, I really should be going to class, but I also need to go to the library and research. So I found myself not going to classes as frequently as I do in my classes in my major. E8,6

First of all, general education always took a back seat to the major classes. I am not sure that is the way that it ought to be or not. I would not instantly say that they should take a back seat. C5,8

Implied in the notion that general education classes do not receive serious attention, students also believe that faculty should not expect as much from general education students.

Students Do Not Value General Education

After listening to students talk about their value for general education, I began to get the sense that they often just do not hope to gain much from these courses. These quotations imply a lack of value or importance.

I mean [general education courses] are not my number one priority. E1,7

I am interested in lots of different things, so I don’t mind taking different courses. Some I don’t care for because it’s not applicable to real life—that you can somehow incorporate [it]. I mean, you are never going to use it. E9,1

I don’t think that most people have a very good attitude. They don’t see the merit of gen. ed. It is something you have to drudge through before you get your diploma, and that sort of thing. They think it is a bunch of busywork, and they don’t want to put out any effort, really. They want it to be as easy as possible. If they have to do it, they want to just skate through it—not really have to do anything for it. C2,8
[The students] don't see it as an important part of their major course of study, and it is just something to get done, to get out of the way. 

I'd say there should be some research, and there should be a lot of exploring. You should have time to read the textbook and some handouts to go along with it. But they shouldn't require that every week you have a paper due. You come into this class, and all of a sudden you are stuck doing lots of work that you didn't even realize was related.

Many students consider general education to be a waste of time, or at best, time that could better be spent elsewhere.

All in all, I would say that students don't want to take [a general education class] just because they don't think they need it. [The students] don't want to sit there for 2 hours every week for 2 hours of credit. . . . It's kind of a waste. They could be taking the right classes or working or something.

[The students] thought it was a waste of their time to be in [a general education class.] They didn't think they were going to get anything out of it. . . . [I]t was unnecessary.

One student explained that lack of value for general education reflects inexperience or lack of focus.

I guess it is a thing, too, of freshmen taking gen. ed. courses. A lot of them are coming to college maybe to see what it is all about, experiencing things. They are going to try new things. If they don't like the class, they are just going to say, "Well, it's only my first year. I don't care if I fail it. I just want to go out and party tomorrow night and drop out of school." That's why they don't take it seriously. I think people who are serious about education and who want to pursue careers--I think they are more interested in it.

A non-traditional student reflected her perception of the typical undergraduate attitude.
I think [students] are just putting their time in. I think there are a lot of people [in class] who could care less. I don’t know if it is the time of the day or if they are too young to care. E13,5

This student received something from life experience that identified her personal value for the general curriculum. I later wondered whether time and experience represent a necessary part of developing a positive value for general education. Does the general education curriculum waste time on some students not yet open to its message?

Grades Motivate Students

Most experienced general education instructors understand that grades motivate students. These quotations illustrate the relationship between student grade point averages and their general education classes. The importance of general education courses relates to their effect on the grade point average.

My main motivation was to get a good grade to raise my grade point. E1,6

It’s not that I don’t think this course is important, because I need it for a higher GPA. I just spend less time on it... I’m not saying that it is not important. E4,7[N]

[Gen. ed.] is important to me as far as my GPA is concerned. If I worked hard at it, it would be an easy thing to bring it up. If I blow it off, it would pull it down. I count on myself to maintain at least the level of my other classes. I expect to get at least an A or a B. I don’t want to get a C... [A] lot of people blow it off. E8

I am also thinking about going to law school, so I know that every little point on my GPA helps. I look at it at a little different angle than the average
student. . . . [T]he paper is an extra credit option. Right now I can miss 6 on the last test and still have 100% in the class. I haven't put as much effort into this class as if my grade was in a little jeopardy. E9,6

I think it's kind of a 50/50 thing. I think there are cases where gen. ed. can help people who are having problems in their majors, and their grades aren't as high. Then again, the people who don't come to class and kind of blow off their grades in gen. ed., I think it lowers it a lot. It depends on the type of student, I think a lot. C2,10-11

Often instructors feel regret or receive criticism when they need to report a failing grade for a course, especially, I think, in general education. Some students indicate that the threat of a bad grade represents the only motivating factor in some courses, and perhaps even that threat does not always work.

You have to be motivated to learn, and the way most people become motivated to learn is that they are afraid of failing. I am. If I took an F home on my grade sheet, my parents would probably quit paying for college. Other people, it's kind of like, no big deal, I'll take it again. But that motivation . . . that has to come. If you don't have it, it has to come from somewhere. I didn't have it until I got to college. I didn't have it until my humanities class. [That] was the first class [where] I read the books, and I was an active reader. And I thought this is kind of fun. This is good stuff to know. E15,10

R: It's my own fault [that general education lowers my GPA] probably, because I do well on my English courses because they come more easily to me. [I am] motivated to do it. I avoid taking general education as much as I can because I am not motivated to do it. I don't want to do it. It's more work that I have to do, and I would just as soon skip it. It's kind of nice to have, you know, separate--this is my general education, and this is my major GPA. But cumulative, once you add them together, it's just, oh...
Q: Is that true for a lot of students—that the gen. ed. drags the GPA down?
R. Of the students I’ve known, yes... But I don’t know if it is necessarily for all students. C8,9

In order to get an A grade, she sets out her guidelines. There needs to be participation. You need to discuss. You need to do this, in order to get the A. Some people say that’s only 25% of my grade, so if I do all my other work, and I do it really well, then, well, I’ll end up with a B, so I just won’t say anything in class. They make that choice... I think in other classes I inadvertantly made that choice. C18,8

Students impressed me with the serious manner in which they offered their criticism of the way instructors currently present general education. I did not sense their intent to reduce the program. I believe these students hoped to bring more value to their education.

**Imagining a More Motivational General Education Curriculum**

When I asked students to recommend ways in which general education could be improved some of them thought individual courses could become more motivating by their structure. These suggested changes often reflect student learning styles.

I think if I had to do something on my own, like research a topic or just write a paper, I think I would become more interested in a topic and just more responsible. I think it just goes back to having low expectations. I don’t do much just because she doesn’t expect much of me. Even though she tells us every time—read the chapter—her whole lecture almost is from the book. She must be expecting that we are not reading it, and I am not. I think part of that is because she doesn’t expect us to, even though she tells us to. E11,10
Some students specifically identified times when their general education professors helped them to learn about learning. Other general education instructors may serve students by providing similar strategy sessions.

I got all that about active learning from [my humanities professor]. He lectured [about active learning] for the first week of class. I don't think I would have ever thought of that myself. I don't know which other professors might be teaching that. I know if I hadn't taken that specific class, that wouldn't have been a part of how I think. He specifically tells us about the active versus the passive learner. He talked about learning to ride the bicycle. I remember the details of that day. He was saying that's a long-term memory item--obviously. When you are reading something in a textbook, how can you make that a long-term memory? He said--he talked about the SQ3R method. . . . He's right. If you learn what to look for in a text--you can say this might be on a test, or this might be good to know--if you just look through it, instead of just reading front to end. . . . You have to read it with an interest in it--as if you are trying to get something out of it. E15,10

I encountered students who assume that teachers teach for a reason. However, they did not always perceive the reason.

If the faculty has decided that everybody has to take it, it can't be a bad class. It's not like making them put their hand in a tub of water and giving them an electric shock. I don't think it's that kind of a class. E13,10

Some students enjoyed general education courses because they stimulated interest and learning.

When I first came here, I thought it was stupid. I didn't see why I had to take it. I thought, "Oh, humanities. I have to read all of the time." I just wanted to take classes in my major. . . . My general education classes have become my favorite classes, because I learn more in them. They are more
interesting. I guess I like trivia and things—not trivia, but just a broader base to know things than I ever had before. E15,1,2

Now that [senior seminar] is over, I think that a lot of [the students] have gained a very valuable experience. I think the discussion is a valuable experience. For example, from what I know of a business major, it's very: "Here's your facts; here's your formula. Go out and do it, kid," kind of thing. Unless you learn to put philosophy with it—I don't think that philosophy is everything, but I think it is a very important way to learn to look at the world. E6,10

Some of the student comments stood out merely because they seemed to ring true. One example follows.

General education is geared to everybody, whereas if you go in to take chemistry or an advanced psychology class, that is not general education. It is more focussed on what you have to know—more advanced, where general education covers a lot of things. I think instructors teach general education different than if it was for a major. I think freshmen or sophomores are, to some extent, taught differently than juniors and seniors. E13,8

Whether or not general education instructors should teach courses "differently" in order to motivate students suggests a matter for serious discussion. Student perceptions reveal an unclear understanding about how and for what purposes general education courses should be different from or related to other components of the curriculum.

In the following section, students agree that some general education courses represent useful, motivational experiences. These "good" general education courses contrast with others characterized as "bad."
Good and Bad General Education Courses

Students often compare the current class to other classes they previously experienced. Instructors who view student evaluations as a positive source of information for reflection on how instructors teach, value student perceptions. Personal reflection becomes one of the tools at the disposal of general education faculty. In this section, I pursue and interpret student perceptions of good and bad general education courses.

Students weigh many factors before they pass judgement on a course. They often realize the limitations of class size and budget restrictions. They use the criterion of relevance to their own lives freely in their assessments, and, certainly, they expect a course to be interesting. Because students recognize that a "good professor" or a "bad professor" can transform the nature of a course, I consider the student perception regarding the professor per se in a later section.

In Chapter I, I described how I selected the students in this study from those recently or currently enrolled in one of two general education environmental science courses. One course, coded "environmental science," convenes class meetings with more than 200 students in each section. The other course, coded "senior seminar," maintains a deliberate enrollment cap at 35 or fewer students in each
section to encourage student participation. This arrangement facilitated my reception of student comments on both small and large general education classes. Thus, class size becomes a frequent criterion for student judgements pertaining to quality.

Good General Education Courses Connect to Real Life

Students want all of their courses to connect in some practical way to their lives. The connection of relevance in their major classes often represents vocation. In general education classes, however, students often prefer that professors tell them how their courses relate to their lives, rather than trying to figure out the relation on their own. If the course "relates to real life," it generally rates "good" among students.

I think [Senior Seminar] is a very useful class. This goes back to solving [society's] problems. I would say that, in this respect, the university is doing an excellent job. I know that a lot of other universities don't incorporate it into the curriculum. They think that the purpose behind using the smaller classes is so that you can really fully immerse someone who is about ready to join the real world—fully immerse them in the problems of the environment. When they go out into the world, they need to know how to help the environment, how to change the world and to make it a better place. Also, I think it serves the purpose of the word "[senior seminar]"—it's like the icing on the cake. E6,9

A senior seminar on the environment forces students to look at their place in society. Students recognize the value of this connection whether or not their professor
skillfully presents the premise. In later chapters, I will return to the general education curriculum paradigm which historically includes a connection between knowledge acquired in the college classroom and its pragmatic application as a citizen in a democracy. This curriculum paradigm arose, in part, because students demanded to see this connection between their learning and life after graduation. Some curriculum designers apparently heard their call when they designed senior seminar and other courses.

Subtle variations of the above theme of relevance appear in many of the following quotations. The students passionately express when a course touches their life.

My gen. eds. are my favorite courses. I took Humanities I and II. Humanities II is my favorite course I have ever taken. . . . I enjoy knowing those things. I feel educated, you know? I feel like I have learned things. . . . Just for the fun of knowing those things. I feel intelligent because I have learned this stuff. I feel like I am a more well-rounded person, or whatever. . . . My Humanities I class, which was Fall of my sophomore year, that’s the first class that I really liked. [The professor] is kind of funny, and he related everything. We read Plato’s symposium, and he made their little gatherings they were having--he compared it to a kegger. He put it in terms that a typical college student would relate to. That’s when I first started--I liked everything that we read, and I learned a lot in that course. E15,1

This student’s life was changed by a professor who related classical literature and history to everyday student experience. I note that the skills that this professor
used to produce an outstanding general education course do not represent the traditional content knowledge gained in a doctoral program or in postdoctoral research. The success of this course resulted from the professor’s reflection on the connection between life today and life in the past.

Students recognize that real life experiences often do not center on facts, but rather they include the give and take we witness in an open discussion—the kind possibly witnessed among leaders in an ideal democracy. Teaching in a democratic manner helps students learn about democracy.

[Senior seminar] was a lot more enjoyable. You weren't forced to regurgitate information. We discussed issues that affect us every day. C4,8

I think [senior seminar] is a very good course for students to take. I am glad that it is a required class. There’s a lot of people in that class who were never aware of the issues that are out there. I always thought I was aware of issues regarding the subject, but there are some things in there that I have learned that I never knew before. One thing I like about [senior seminar] is that it gets you to speak up. They want you to participate more. They want your views on pollution and the environment. I think it is a very enjoyable class. C15,5

Successful instructors help students make connections when they provide examples that apply the knowledge gained in their courses to present-day situations. Perhaps they expound on a story in the newspaper or the birth of a baby to a student's sister.

I have always been interested in the gene. I can remember my 9th grade science class. When we talked about maternity and development, that's all that interested me. That's why I took [the general
Students found fault when instructors provide problems for which students fail to imagine apparent solutions or content without practical application. Students recognized their inexperience in solving problems and hope that instructors will provide them with problem-solving skills and experience using them.

One of my biggest complaints is that we learn about what we screwed up and not what we can do about what we screwed up. That’s what I’ve noticed. We learn about the central Arizona project. Well, what can we do about it to change it? It was just cut off at what we did, not what we can do about it. I guess that’s for future thinkers to think about. E2,4-5

What I wanted to learn in this course was maybe some ways for us personally as college students to start working toward solving these problems. I don’t think we have gotten a whole lot of that. We diagnosed the problem. We spent a considerable amount of time understanding exactly what was going on. As far as solving the problem goes, not a whole lot. The professor talks more about what government should be doing or what giant institutions should be doing. I’ll be honest with you. I’m 20 years old; I’m a college student; I’m starving, whatever. There’s not a lot of power I wield now as a citizen of the United States. Quite frankly, I need to know what I can do. In that respect, it hasn’t been a very positive course. E6,5-6
Students recognized that the organization of some classes made them more difficult to connect to their lives, implying a challenge to the instructor.

I think that the issues that are talked about in [senior seminar] can relate more readily. When I look at everything—all of the classes in one form or the other, if you really want to stretch or really look into it—everything can connect in some way or another. I think [senior seminar] more than anything else would more readily associate with what we are doing more with everyday life. Yes, you may hit some chemistry along the way, but how many times are you going to hit something related to chemistry in a 1-month period compared to [senior seminar] which is dealt with? Those are things that, yes, we deal with every day. C18,11

Students frequently conclude that general education courses that fail to demonstrate relevance to their lives cannot provide them with much of value. They expect instructors to get outside of their specialty in general education classes—to connect with the real world as students see it and to use their knowledge to teach students how to deal with problems in their own lives.

My sociology class, for instance. I never fully connected with that class or what he was trying to do. It didn’t do much for me. Sometimes I am sitting in a general education course, and I go, "Why do I need this? Why in God’s name do I care, because there is no relevance?" If they have a special field of study, that’s where they aim their study—it’s not a broad scope, or something like that. C18,

Good General Education Courses Stimulate My Interest

Students often remarked that a good general education class stimulated their interest even when they had no such
expectations. They assign credit to the serious work of the instructor--usually for some form of getting students actively thinking, discussing, and learning. Students place development of an interesting presentation by the instructor high on their list of positive attributes. They believe faculty should motivate students.

... keep more people more interested ... E2,6

Try to keep it interesting. Put some personal stuff in it. ... You can tell just by their body language that [instructors] are interested and that helps other people get interested. E10,7

Well, for myself personally, it has served that purpose [stimulated my interest]. I've taken general education courses, for example religions of the world. Loved it. I never thought I would feel that way about religion, but I fell in love with it. E6,1

I always force myself to sit in the front row of all of my classes, so I pay attention ... discussion and interaction with other people, other students, and professors--they obviously know the topic. They know what they are teaching. They bounce things off of you. They do it in a manner in which they are not telling you. They are getting you to think about it. They are getting you to come up with the answers. That is the most thrilling thing about education. You are coming up with it. Teaching you how to think. The first time it ever happened to me was my freshman year in college. I was at a small, 4-year, liberal arts school. The professors there were amazing because they were teaching me how to think. They weren't lecturing me. I would come up with something and share it. That was the main purpose of our class --to all read, come, and discuss. When you figure something out on your own, that, yeah, people have probably known it for 20 years, and, if the teacher had stood there and told it to you, it would have been more information you were getting. But the fact that you read it and came up with it, it wasn't new information but discovering it for yourself--it was a great feeling. E12,12

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
I think I got into one of the better classes--more discussion. C8,4

Some professors apparently encourage among students the same love of and excitement for thinking and learning that they feel themselves--even in general education classes. Students respond to that enthusiasm.

If [gen. ed.] is going to take priority over a major course, it is going to be something that I am very interested in, or it is going to be a very excellent teacher--one or the other. C5,8

I guess maybe it was the lecture format--fact, fact, fact--where in [senior seminar] you really discuss it and talk about the implications of it. . . . I don't even take notes in [senior seminar], because there is too much thinking going on that I don't write anything down. C9,10

My roommates say [senior seminar] is interesting. They learn a lot. I think that's great. I love when we get into discussions. . . . Wednesday we got into a discussion where these two people had totally different views. That gave me the idea of, "Why would I want to side with her, or why would I want to side with him? Why is it important to them. What perspective do I have on the issue?" . . . [Our class] doesn't really have a regular test. I think it is more informational based. We voice our opinions out loud, not on paper. . . . In a testing situation, the guy next to me is not going to know my opinion about the subject, and I'm not going to know his, because it's just on paper. When we get into a discussion about it, we know what the different opinions are. I think it is a great way to learn. If you think about it, sitting through 2 hours of class, that's a long time, but it goes by fast because we are so into what we are talking about. All we do is we look through newspapers and find articles to talk about. I look through magazines and get article ideas and listen to the news, too. Indirectly, she's not giving us the assignment, but she is saying I'd like you guys--if you see some articles that you would like to talk about, to bring it. She is not making us do it. So consciously, every time I listen to the news--are they going to talk about something in the environment.
today?--so I can take it to class. . . . I'm tuned in to environmental issues on the news. Why am I doing that? Because it is not forcing you to do the assignment. A lot of people don't do the assignment. But maybe they do listen for issues. C13,7-8

More than one student figured out that a two-hour class makes sense if the time invested generates conversation instead of information. They discover that learning can happen between students.

She has high expectation for speaking up, bringing articles to class, for class participation. She doesn't seem to like to talk for the whole hour or 2 hours. She wants students to participate and start new conversations. Actually, I like a class like that, where it is really not a lot of work academically--which I really don't mind that--but I like those kind of classes, too, where you kind of communicate and talk. You are learning a whole lot, besides that. C15,6

Good General Education Courses Do Not Consume Excessive Time or Energy

In keeping with their perceptions of the role of general education, students expect instructors to ask for only a reasonable amount of their time and energy. They seem to wish there could be some negotiation, some give and take by student and instructor alike. Also high on their list, students believe instructors should recognize that students have other priorities beyond general education. Often implied in the context, students know that the instructor maintains other more-pressing interests, and the students expect instructors to realize that they pursue busy lives, too.
Everybody has other classes that might be more important than that one. E2,6

In my major, I spend a lot of nights on campus. I go home tired, and I never have enough time to study every class, every night. . . . I have had professors say you might as well expect to spend at least 2 hours on this course a night. . . . I think [high expectations are] kind of ridiculous for students like me who have like two or three lab courses each semester, and I spend a lot of time in the labs and everything else. I just think that they look too much at their own [course] and don't look at the wide variety of their students who may have a lot of obligations. More professors need to look and think, "Well, these students may have a lot of obligations. Maybe if I cut my load down by a half-hour a night. . . ." or something like that. If all of the professors would do that, it would be a lot easier on us.

I would prefer that it would be not too strenuous, so I can come to class and take good notes, and study a little bit before the test, and do fine. . . . I would say that for a 4-hour course about 4 or 5 hours a week [outside of class] is about what I should plan on. C6,5

I'd say that gen. ed. has been easier, in general. And I would say that is appropriate. The difficulty level is appropriate, because I do look at my major courses as more important, and the other ones to learn a little bit more. C6,10.

Students universally agreed that the credit hours awarded for a course should match the work investment required.

I've had some that were impossible. There is no way you could get out of there without putting in hundreds of hours, it seemed like. This one is not too hard, but I think that for the number of hours it is, it seemed hard enough. C7,10

[One student] complained [she had] more homework from that class than from any other class, and it is only a 2-hour class. C10,11
For a 2-credit class, it is a lot of work, compared to a physics class like 4 credits. I am saying there is really an equal amount of work, from my perception, in physics and [senior seminar]. C18,4

Good General Education Courses Stimulate Learning

Although not a frequent topic, a few students commented specifically that they think learning represents an important measure of the worth of a course.

I am taking a class now, and people don't like it because it is somewhat difficult. I mean, just automatically, "That's not a good class." If it is difficult, it is not good. I definitely have a problem with that, because I feel like the reason I am here is to learn. In the long run, I don't think your grades are that much of an impact on your life. E11,8

Whereas learning as an outcome of education seems obvious to some students, it appears wasted on others.

One student remarked that a simple extra credit writing assignment on a topic of choice allows a special kind of self-motivated learning.

I specifically like how the professor gave us an extra-credit assignment. The extra-credit assignment that she gave us [was] on any field that we would want to do a paper on, and it gets everybody interested in something. It's over anything. I just wrote a little--a 2-3 page paper. I think it helps get everybody interested in a field that they really don't know much about. E2,1

Bad General Education Courses Reflect Large Class Size

Faculty and students alike complain when large class size limits effective instruction. Some students accept class size as an administrative necessity, whereas others
believe administrators take advantage of students in the general education program by over-enrolling classes.

The only bad things are like the classes are so big, but everybody knows that. You don't have the personal help and all that. E2,1

I think, like when we walk out of class it's like— that was boring, but there is no way that the teacher can help that, because there's so many of us. A lot of the people walk out, and they look tired, and they say it is boring, but there is no way the teacher can help that. E4,8

A lot of people are very rude and will talk. They whisper the whole time, and it is sometimes hard to concentrate on what she is saying. I really want to know. I guess people in the back row mostly sleep or tune her out. . . . It could also be the fact that the class size is so big. I find it to be too large for a class. Granted, it is a lecture class. E7,4

We commented on how easy it would be for somebody to copy us in the test. The chairs are just perfectly aligned for somebody to copy. . . . There's just no privacy, if that's a word you could use. I think that's a problem in there. I think there's so many people in there that there is just no way that you could ever control somebody from not ever studying for a test. E2,5

Many students value a personal connection with their instructors, and they believe this leads to more efficient learning. Students value the discussion and interaction not possible in a large class.

I like discussion classes. That bothers me when we sit in class in that huge lecture class upstairs, and [the professor] will ask a question, and people will just sit there like they are not even there, and they don't answer. I know it is tough when you have 300 people in the room, but I think that there is some interaction that could be there. E13,4

I really don't like big classes because it is like one to 200. I like a smaller ratio. I think you learn
more. . . I would think you would get to know your professor better, if it was a smaller class. She has no clue who I am--that I even go to her class. E4,4-5[N]

I think there is no way to make the class more interesting than it is right now, because the only thing she can do is stand in front of us and lecture, because there's so many of us. If the ratio was smaller, maybe there could be a group discussion or something besides what is going on right now. E4,4-5[J]

Implying the value of interaction in the classroom, students prefer a small class size with closer personal interrelationships.

Very, very small--like, oh man, I don't want to talk in front of a bunch of people. Like 20. Meaning very small. E4,5[J]

Being in a class of 250 students, it's awfully easy to space off and fade away. I think it's really hard for a professor in that setting to completely gauge what we want or what we need. We get to classes that large, and you can't help but make it impersonal. [Instructors] have to deal with student numbers because it is just so vast. For example, don't bother to take attendance. It would be pointless. I can say that I am [anyone], and she probably wouldn't be able to tell the difference. I do feel sympathy for the fact that professors have to teach those huge classes. There is a shortage of professors to teach it. E6,5-6

This comment caused me to reflect on student-felt sympathy for the overworked faculty. In fact, the shortage of professors teaching general education relates to what professors prefer to teach. They naturally prefer to teach in their area of expertise, and they appreciate the smaller classes with students eager to learn the content knowledge of their shared vocational interest.
When asked specifically about the advantage of smaller classes, students return to the possibility of discussion.

[In a smaller class] there might be more opportunity for in-class discussions, students sharing their viewpoint, rather than having them talk at you and having them tell you what they think you have to know. There would be more opportunity for the students to ask questions and lead the discussion into another area that they want to talk about. It would bring in other areas that maybe the instructor doesn't think would be as important—that maybe the student has interest in. It would give me an opportunity, if there is something I wanted to talk about, that maybe I could ask them, and that we could add on to the course in that way, or add another dimension to the class that wasn't there before. Usually, you just read part of the text that they assign you, then you go listen to them talk, and you have a test over it. It might allow a little more variety to it. C2, 7

Conversely, not all students appreciate the opportunity to participate in class discussions. They would rather remain anonymous, learning passively.

After class one day, I said [to a classmate], "Why do you [not participate]?" He said, "I am paying to go to school here. I am not paying to stand up and make a fool of myself." I know that there's a lot of people that have that attitude. They don't think that they should have to participate, if they are getting it the way that they are getting it, through lecture or just through sitting there taking it in. I had that attitude my first year. I paid my money to go here. I don't like professors to call on me. I was also not interested at the time. The last couple of years, I have always participated. I think a lot of the younger students are exactly the same way. . . . High school was all lecture. There was never interaction. E12, 13

Without a doubt many students hold the perception of learning like a sponge—they soak up information. Whether general education faculty should invest their energy in
changing this perception pervades the debate over
curriculum reform priorities. In departments where
students eagerly study the content of their major, because
content helps them prepare for their prospective vocation,
students receive a mixed message about the nature, meaning,
and purpose of learning. Likewise, scholarly faculty often
disagree based on the same premises.

For some students, large classes seem so impersonal as
to make them invisible. They feel as if it makes little
difference whether they attend or not. One student
provided a respectable ethnographer's description of a
large general education classroom.

Big. The room is big. For a while they were doing
construction--so it was noisy. She is half-yelling
and half-talking. You can hear. It carries all the
way up. She is really loud, but she is talking at the
same time [as others]. There are people that I see
all of the time. They are always in class. They
usually sit in the first few rows. I usually kind of
sit on the isle on the front. Since the room is so
huge, I consider a whole big portion of it the front.
I sit closer to the front. Usually the middle seats
are taken up [when I get there]. I think a lot of
[the students] kind of space out. Some people are
talking or sleeping. People who I can see that are in
front of me usually are taking notes. [Some] are
there, and I don't know why they come. Some people
are people from my high school in that class, and I
don't see them for weeks. They show up on the test--
magically. Some people are there all of the time.
This [class] is probably a lot less difficult
than a lot of the other classes I am taking right now.
... [This is] not the easiest class I took. This is
not extremely difficult. The test, I get to some
questions, and I don't know the answer. Some of them
I know my stuff. I know what I am doing. I know I
need to study for the class, but I know that I don't
need to study as hard as say my [foreign language]
class. It's not a high stress class, which is nice, because I need one class that is not as rigorous as the other classes I am taking. We did have to write an extra-credit paper in there, which is good also. I am also learning something outside of the class that is helpful to me also. I got to incorporate my political science paper into this class too.

[The tests are] multiple choice. 50 questions, printed real close together. Difficulty wise, it's not a walk in the park, but it's not the hardest test. If they read the book, maybe they can do OK. If they just walk in, didn't pick up the book and didn't listen to her at all, I don't think they would be doing too well, either. I think if you put out the work, you get the grade. If you don't, you don't. It's pretty fair that way. The people who I know who don't come very often—I know one, and she is pretty happy with where she is. She figures, "That's the work I'm doing, and that's what I am getting."

I like the smaller classes. I feel more comfortable. I think it is easier to participate. With 250 people in my [environmental science] class, no one participates. We don't have a discussion between the professor and us. In political science class with 20 students, he expects us to talk. I like it better. If I had a disagreement with the professor, or some input I wanted to share, I wouldn't necessarily need to talk to him after class or to go to his office. I could discuss it there in class, and we could all benefit. You can't really space out. You have to pay attention. The professor is right there—right in your eyes, rather than in a huge room full of people. If someone said something that I completely disagree with I can bring that up, and if someone is in the middle, they can look at both sides.

Other students described survival tactics.

Sometimes one person goes one day, then another person goes the next week, and then they just switch, flip-flop. E14,8

I think that one of the biggest reasons why I do better than a lot of people is because I go to class. It seems like so many people skip class so much. A lot of times—this isn't really good—if you go to class, you don't even have to read the book, because they lecture right out of the book. I would rather go to class than have to--the night before the test—try
to read everything and understand what it is saying. That's why a lot of people have problems with it. They think it is just gen. ed. They don't have to go. It is not important. Some people--not many--take attendance. Some base part of the grade on participation. So if you are not there, you obviously can't participate.

I think it's the way the class is set up. It's 250 people or whatever. It's easy to wake up in the morning and say, "I really don't feel like going to class." And you really don't have to because you have your book there, and no one knows when you are not there. . . . I have a friend who goes pretty religiously. If I miss a day, you say, "Did we talk about something that was not in the book?" She would say, "Yes, we talked about this." She can explain to me about most of it. You can explain one part of it, and it will be the question on the test. It's pretty much better to go, but a lot of people don't, which is also nice because the people who aren't interested and have to take the class go, and they are distracting. But, since they don't have to go, they don't, and it is not as distracting.

There are some who don't even show up for the class. All they want is the grade. There's other people who want to come and learn all they can from the class. With that spectrum, with 300 students, I think it is hard to have a base goal to drive for. I could see that her goal could be to get half of the people to come to the class regularly, to get over half of them passing. I think that she really cares that we all try to do our best in there. She wants us to learn. . . . As large as the class is, it is really hard to form a cohesive goal because there's so many different students. She may have two different goals--one for the ones that just want to get the grade, and one for those that want to learn something and attend. She has us write a paper, and she really looks to see if we are learning anything. . . . I think she would have higher [expectations] if it was a smaller, more cohesive class that she could be more personable with.

Actually, one of my biggest problems with the general education, just in general, is that the classes are so large. . . . I came here--like, "Oh, my goodness." . . . It is so impersonal--just because she doesn't even know my name. I have a much harder time learning in a
bigger class. You don’t have much opportunity for
discussion or critical thinking. E11,5

I feel like the other gen. ed. classes were just huge.
It was lecture time--wrote notes down, left, came
back, took the test, lectured--same cycle. Didn’t get
to know the teacher; didn’t know another person;
didn’t know his opinion. He gave us the facts and
dismissed. [Senior seminar], we know what she feels
about certain issues. We can all express how we feel.
She is accepting of everyone’s opinion. C13,9

Many students commented that reducing class size would

significantly contribute to their learning.

I can listen to an instructor talk, and I can write
down what he/she says. I pack up my books and go
home. But that doesn’t really force me to think about
anything. I can learn these facts and regurgitate
them for the test. . . . If it was possible, have
smaller sections. Just in itself that would help a
lot. . . . Even with [senior seminar], it was not
really small, but we had a good discussion because of
the way that it doesn’t really have a structure--that
today we are going to cover this. . . . It’s just kind
of here’s a subject, let’s start talking about it and
see if we can figure it out. She throws something
out, but we can slowly get off on a tangent where we
are still kind of relevant to what we were talking
about, but it is still where we want to go. I like
that. It doesn’t seem like the instructor is
dictating what we are going to do. The best possible
learning situation would be one instructor for one
student. Obviously, you can’t have that. C9,7

[In a small class], you can hear every person’s
viewpoint. In [environmental science], you can’t talk
between 300 students. That is very unreasonable. In
a small group, you get to hear other people’s
perspectives on it, which I think always enhances
teaching or learning. . . . Everyone can make valuable
contributions in a discussion. That’s why I love
group discussions. You do find that the people that
you interact with are different than you, and that
really enhances your communication skills, how to get
along with other people, and your knowledge. You
remember the discussions you had and know both sides
of the story. E9,8-9
Smaller classes, for me, are much easier to talk . . . and voice my opinion, and especially with stuff like [in senior seminar]. It is much easier for me to voice when they are decisions . . . because it is directly involved with me. . . . It goes back to making a clear definition about what we are doing, and then relating it to where we are right here, and then being enthused about it. It makes me participate in class. C18,9

With 300 students in class, you know you can hide. If I had a smaller class, I am sure I would have kept up with the readings. I talked to other people--with 20 people in the class--and they have a discussion. When you have 300 people in the class, it is hard to have a discussion. I think humanities is a class that you want to get more of a discussion in about the book, or whatever. C16,7

I nearly always managed to ask students who commented on class size whether they ever experienced a good class that filled an auditorium. They seldom recalled such an experience. When they did, however, they credited an instructor with exceptional skills working under limitations.

I did have one other [large] class my first semester here. He was a good teacher. I think all of his classes were that size. . . . He knew the material. He knew how to handle the people. C13,11

**Bad General Education Courses Suffer Due to Large Block Scheduling**

Classes that meet infrequently and in large blocks of time often contribute to the convenience of both students and faculty. Students recognize, however, the difficulty of remaining on task to achieve comparable learning that would occur in another schedule. Students perceive the
effective management of long class meetings as a challenge to both the instructor and to themselves.

I think some [students] seem to be very bored toward the class [environmental science]. I think probably part of it is because it is very long [3 hours]. A lot of it is just straight lecture. Also, the room is always quite warm. . . . In a way, for the teaching, [a 3-hour class] is convenient. But at the same time, even if she shows a film, that leaves us at least 2 hours. She goes from chapter to chapter and just sort of bangs stuff in our heads. I almost consider it a mistake. I mean, people complain because I guess some people don’t even have time to write down what she is saying. Of course, she tells them to tell her to slow down, because she can. I think that people are kind of mindlessly writing this stuff down and not even thinking about it . . . . I think it is better to learn stuff in shorter increments of time and that you would probably retain more . . . [The course] is too easy, and I think the teacher is to blame. I’ve taken classes this semester where I feel I don’t need to go to class. Ell,7-8

Bad General Education Courses Coddle Students

A few very frank students admitted that they recognized occasions when an instructor taught at a level far below what they perceived as college-level content. This became a concern because it wasted the student’s time and money, and it degraded the learning experience of the whole class.

This is an example: my humanities course. We had what was called a "civilization primer"—a civilization primer that we had to buy at the beginning of the year. The civilization primer told us things like "continents are a large land mass." A: I don’t need to pay 15 dollars to learn those. B: "Why are you telling me this, if I am in college?" And C: "If you don’t know that already, why are you here? You need to go back and learn something before you come to college." I think that this is contributing to the way the [students] look at [college education] in this
country—as almost anyone can get it. I think that gen. ed. courses to a certain degree aren’t being tough enough. It’s not so much that I don’t think that it is factually challenging. I believe that in college things should require you to think more and process more, rather than to regurgitate facts. So, I think that’s how a lot of those people get to [senior seminar.] It’s because they are coddled through every level. I do believe in extracurricular places you can go to learn some of those skills. I realize that a lot of times you don’t pick that up in high school. Nobody teaches you that. They expect you to know it always. If you are going to learn it, you have to learn it sometime. It might as well be now. I think within the course itself that shouldn’t be going on. I think you should challenge your students, and if they can’t keep up, they need to seek outside help. Gauging that level has got to be so hard. I’m sure that in gen. ed. classes you see this panorama of student levels. . . . I still think those courses should be more challenging—even for freshmen. I don’t believe in weed-out courses, where they are just insanely difficult just as an endurance test. I think that is silly. But I do think that we should be learning something. In that respect, I am disappointed with gen. ed. E6,5

She probably thinks she is not getting through. She over-explains it. It is so explicit. It’s akin to wading through wet sand sometimes to get through the different topics she wants to cover. To a certain extent, I feel like she should be covering the material much more concisely than she is. I think that she could bring to class a lot fewer examples than she usually does. I think she could take less time going through things. I think in that sense, yes, she is coddling us. E6,7

Some students realize that this kind of teaching-down results when instructors overreact to students who prefer that general education classes be relatively easy.

I get a decent grade. It could probably be a little bit harder, but then nobody would take it. . . . They would try to find something else easier. E7,5

I mean, I haven’t put any effort into it. . . . [I]f I have something else come up during that class period,
I will probably opt to do the other thing, just because I know I can catch up. I try to keep up with the readings. I try, but a lot of times I am the abnormal student in a class like that, too. E9,5

I don't think it is difficult at all. She goes in there, and it is very straightforward. It is right out of the book. If you pay attention to her and read your book, there is no way that you can't get a B. And, she has in-class assignments that you do, and that should raise your grade even more, if you take the time to study. E13,6

I think that [the professors] are very aware of the fact that the students are taking the classes just to get the requirements and move on. They just want to get them through. . . . [One of my former roommates] . . . ended up flunking every test [in humanities]. She was too lazy. She had heard so much about the professor that she knew that it didn't matter, that she could still end up with a C in the class, and she did it. She tried her hardest to be sure to get him for Humanities II. She didn't care. She got her grade and moved on. I think it is very common, in certain gen. ed. classes. C8,8-9

I studied a whole lot less [for gen ed.] . . . because, like, I had that stuff basically from 7th grade on through high school, and it was pretty much stuff I already know. Flip through the book for 15 minutes, and look up the stuff that I didn't know before, and I was set. C9,8

I am getting an A in this class, and I haven't opened the book. E15,7

I came through [gen. ed.] pretty good. I took a lot of classes that were a little too easy. I should have taken harder, because I had had the material. Science I breezed through, because I am a science major. C7,1

Like the following student, I wonder whether some students encounter difficulty because they do not put in the effort, or whether they are saving face by claiming not to study at all.
The guys that I listened to--none of them--they haven't even bought the book. Like two of them didn't buy the book, and three of them said they haven't even opened it. But then, guys can be like that--"Well, I haven't even read it"--because they are embarrassed because they are not getting a very good grade. So you never know if people are lying or not. E12,9

Bad General Education Courses

Encourage Technical Learning

Science teaching notoriously can seem technical to students. Not surprisingly, scientists who teach general education encounter a difficult assignment when students expect them to teach in a non-technical manner.

When I was in high school, I enjoyed science. I did good in science. . . . I don't know. I am not interested anymore, I think. Anymore, it is just out there. . . . It is more of a technical--I think a lot of science is memorization. You have to memorize this, this, and this, so that you know it. I think of English more as analyzing. I guess science is the same way. I like to read. I am a better story reader, than a textbook reader. I think that is the big thing. I do not like to read textbooks. C8,3

I note that this student finds English more analytical than his general education science courses. This student perception did not surprise me, but faculty may convey the wrong message, if they teach science as facts. Books written specifically for general education science often contain stories. To please some students, they should look even less like science text books.

Good Professors and Bad Professors

Ask any student to describe the college experience and the resulting story will eventually describe good and bad
professors that helped to shape the student's life. For students, professors define classes. Student perceptions of good or bad classes, then, describe good and bad professors. As with almost anything else students categorize, professors' names sometimes show up on lists depicting both the good and the bad. As I listened to students describe their instructors, I began to better understand what students value in a general education professor.

That's the biggest thing we talk about on Friday and Saturday nights, when we are just hanging around. A lot of us talk about our professors. "He's cool--I really like him. He's fair." A lot of us will say, "I'll be sure to take that class." We will always ask, "Hey, did you have this class last semester? Well, how was that professor? Was he nice? Was he fair?" Most of the time, if another student tells me that professor was a jerk ... [I listen]. C15,9-10

Not surprisingly, students believe that good professors understand students.

Good Professors Understand Students

I began with an interest to know specifically what a student might mean by a statement that "good professors understand general education students." Many factors emerged.

I think that the professor I had for [environmental science] [understood us], because he tried to make it interesting, and he mainly tried to keep our interest up. ... [H]e knows that most of us are there because we had to be there. It was summer, and he really got really excited about things, and it made you more excited. He kept telling us, "This is a rough overview of it, because I know that you guys aren't
going to have to know details." I think that he did know what gen. ed. was all about and what we thought gen. ed. was all about. E1,5

This professor apparently knew that general education should not focus on facts and details. He also had a sense that his excitement was contagious to students, and he worked at keeping the class interesting.

Another student described a good instructor who:

keeps up with the overwhelming people who are on the opposite end. . . . [S]he has kind of a struggle keeping everybody's attention--keeping the class under control--keeping people calmed down at the beginning of class, quieted down. She is very patient, very tolerant, very energetic. She keeps the class moving along. She's not monotonous. She does a real good job of keeping everyone's attention. E2,8-9

This instructor exhibited good management skills for a large classroom and retained her patience. The energy or enthusiasm of a professor often becomes the focus of praise.

I think some people would just sit, and go through life even, until somebody said, "Wake up and look at this and be more aware." I think that is what she is trying to do. I think she is trying to motivate us to be aware. I think it's a wonderful class. I think she is doing a wonderful job--if she had a more receptive audience. That's biased on my part. You can tell--what she is very aggressive about--she repeats. It got me to thinking about why that is so important to her. Maybe it should be important to me, too. E13,6

[He or she is going to bring in his values. She is going to have a certain amount of enthusiasm for each class. If they have a high amount of enthusiasm, they are going to get to know each student personally, and they are going to show it. C13,9
Even though enthusiasm draws appreciation from students it can become overdone if it seems preachy.

I would probably say that the best thing you could do was to approach the subject in a very positive but a neutral way. I think it is more important to get your message across smoothly than to get up there and preach about how we need to do this or it is the end of the world. I think a lot of people shut their mind off at that point. I think that [when] you give them a sense of your neutrality, then they are going to be more open to the subject. E16,6-7

Some instructors receive compliments because they help students recover from previous bad experiences.

She was unbelievable. . . . I was scared to death to come to college and take chemistry because I hated it in high school. But she was very, very good. A lot of my instructors here haven’t been the most wonderful. E4,10[J]

Many students recognize that complementary teaching and learning styles between faculty and students produce favorable evaluations.

Everybody has a different style of learning. Everyone has different life styles that they have to accommodate to. You have to work whatever is best for you. If somebody says something is good or something --one person might say that a professor is good, and another might say a person is not very good. E3,8

[The lists of] the good professors are generally accurate. The bad professors, I think it sometimes depends on the student’s insight, whether they liked the professor or not, whether his teaching style matched with their learning style. C6,12

Thus, good professors teach in a way favorable to the student’s learning style.
Students seem particularly drawn to professors who use anecdotes and stories, especially from practical experiences, to keep their teaching interesting.

I liked [that] whatever we were talking about she had an anecdote or story or something to illustrate it. [One particular story] got very old by the end of the semester. But I still liked her. She obviously wanted us to learn. She wanted us all to do well in class because she gave us all kinds of extra credit opportunities. I did end up getting an A, which is really rare for me in a science class. E15,7

I like getting students involved and not just dry lecture, but throwing in some points just of interest. My current humanities professor I enjoy because he once in a while goes off the subject and throws different things at you. But he keeps it interesting, kind of contrasting past cultures with ours today, and throwing in, just for fun, things that he has learned about—the pyramids of Egypt and how those are kind of—the mystery that surrounds them and how they were built. Some theories behind them. It was interesting to learn about that. C6,3-4

I would say, make it interesting. I’ve had some professors, especially from gen. ed., they come in, and they have a transparency written down, and everybody just copies word for word from the transparency, and they never make eye contact. They never ask questions. I think at least letting [students] know you are open to questions and other points of view—trying to create a stimulating environment, somewhat. When you are just copying word for word. . . . Stories—real-life examples help a lot. Or articles that pertain to the subject. [One professor] will bring an article that she finds in Newsweek or Time. . . . Real-life examples. I took a [class]—this was for my major; it was a management class—and the teacher I had was only a part-time professor; he also worked in [another department]. He would go out to different companies and help them train and develop. He was really good, just because he had so many real-life examples. He could say, “I talked to them one time, and they were doing all this and all this.” That really helped to make it interesting. He would show that you will use this someday. C16,3-4
Good professors that students can understand draw repeat enrollment by those same students. The following students describe the relation between classes that fill up quickly and the quality of the instructor.

That's a good instructor. . . . That has been my experience so far in college. If a class fills up quickly, either the instructor is a really good teacher, or the class is really fun to be in, or both. Particular professors on this campus, I have found that their classes seem to fill up kind of fast because the students heard a lot about them, and they have a good reputation. C15,3-4

These students described only positive reasons as to why courses fill up quickly rather than suggesting that the course might be easy or require little work. I think this more often than not describes student attitudes, even with general education courses which they view as superfluous to their interests.

I knew he was a good professor that I could understand. I learned a lot from him in the first class. I specifically chose that class. It is at 9:00 in the morning, which is early for me. I wouldn't have taken it except I wanted that professor. But now that I am getting into where I recognize the professor's names, I will do that. I will take a class with a specific teacher. E15,2

Students accept that the university always chooses smart professors. Skills other that content knowledge produce good professors in general education. Once a student discovers a good professor, that student can be confident that in other classes the professor will be equally good.
I know that if he would have had the teaching skills and the confidence to be in front of that class, it would have been a wonderful class. He could have put the material at a simple level, so we could have all understood. I just think your teaching style, and the way you approach the material, and the way you feel about students all combine together to make an effective class. If one teacher teaches a class [and] I loved the class, I loved the teacher, of course I am going to take the teacher again, no matter what class it is. That is totally separate from whether the class is hard [or] if she requires a lot more work in the second class than she did in the first. I know she is a good teacher. I know she is going to be effective. . . . She will make it just as interesting of a class as she can. It is going to be just as fun as the first time that you took it, because that is her style. All of the teachers up there are just smart. They know their material. It is in their head. Most of them have been there for years and years. They know that this is how a student is going to learn. . . . One teacher just brings enthusiasm--brings personal stories to class--you know, entertains us. . . . That's just how it is. C13,9-10

Students pay attention to whether professors take general education seriously.

I think it makes the students want to learn. I think the students will take gen. ed. seriously . . . if the student is sitting in class, and [the professor] is saying he really cares if we learn. He cares about--[if] he thinks gen. ed. is great, of course we are going to say, "He thinks it's great, and he has been here for years. We should think it is great too." C13,11

My Humanities II professor really valued general education. He thought it was really important. I loved it. He was a wonderful teacher. I really got a lot. . . . He valued what the students thought. He valued education period. He thought it was really important. He made me want to go to class. I went to class because he was interesting. C8,11
This message often reaches students in a reverse form with the opposite effect, which I will describe in the upcoming section.

Students frequently cited close interaction with an instructor as a necessary component of a course that works. Good professors work in small classrooms and entice all students to participate without risk of criticism, failure, or loss of dignity.

She was probably the best professor that I ever had, because every day for class she would give a little quiz—not hand it in, but just to test yourself, see how you were doing. She was a CPA for quite a while, so she had a lot of examples. Again, very open to questions. She tried to get around the room every day and ask everybody at least one question. I thought she was very good. C16,7

She really believes in what she is teaching. That’s really important to me, in this general education class and in any class. If I cannot see the teacher getting excited in what she is teaching, and what it means to her, it just doesn’t mean a hill of beans to me sometimes. It is true. I come into the general education classes sometimes, and you can just see it on the instructor’s face. “I have to come in here and teach this lecture. I don’t want to be here.” Sometimes it really seems like begrudging work to them. . . . But it’s really bizarre to me that they can’t come into it with a greater enthusiasm and motivation for what they are going to do. If you are going to actively teach that “This is the material for today, and this is why it is important,” have that enthusiasm behind it. It’s no wonder that students sit there in a comatose state. That’s the way the teaching is coming across. For me, I reflect a lot on the attitude of the teacher. When the teacher comes in, and they are pissed off, I can sense that, and it just puts me in a pissy mood. If they come in in a light mood, and they are ready to teach, then I am ready to learn! It’s a reflection. It really is. C18,8

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Clearly students recognize that faculty frequently do not teach general education courses by choice and that many instructors do not mask their lack of enthusiasm for teaching. Good general education professors bring their enthusiasm for what they teach into the classroom, and they magically pass their enthusiasm and love of learning along to students.

**Bad Professors Destroy Student Motivation for Learning**

I like my gen. ed. for the most part. There were a couple classes that I just hated, but sometimes it is just the instructor, not the class necessarily. C7,3

Again closely related to bad courses, students perceive bad professors as those who fail to properly gauge the level at which they teach.

This is my theory. This is something that I have been witnessing, and it has been bothering me this year. What I notice going on is coddling within the course. "[Students] are not getting it, so I need to simplify, simplify, simplify." To a certain extent I think this is helpful, because I do think that some professors will get wrapped up in "This is my field of knowledge. I'm going to share this little detail with you." No, they don't need to know that. But also I think you can go to both extremes, and I have seen a lot of professors do that. E6,4-5

To me, I don't like taking an easy instructor, because I feel like I am not getting my money's worth. I prefer somebody giving me a challenge. I may regret it half-way through the semester, but . . . E16,3

[Bad professors] are boring . . . [T]hey are real tough. The course material that you study in class doesn't have anything to do with what's on the test. I have taken tests where I am thinking, "Where did
this come from? I don’t ever recall hearing this word or this phrase or whatever.” C16,3-4

Students describe with despair those unskillful professors who sometimes draw multiple assignments teaching large lecture sections of general education classes. Imagine the impact these "bad professors" impose on student attitudes and motivation as described in these student quotations. Students generously forgive an instructor’s inexperience, but others might rightfully wonder why inexperienced lecturers perform in front of more than 200 students to whom other faculty might like to try to convey value for general education? One of the following "bad professors" lectured to more than 800 general education students in the first year of his teaching. These students conveyed the message that they receive about the university’s commitment to teaching general education.

Some of the professors I have had are just worthless. I feel like I didn’t even learn anything in their classes. As far as their expectations for me, I’m not really sure what it was. Sometimes I think they are up there to hear themselves talk [more] than to teach anything. . . . I thought they were very easy, and other people take them, and they think it’s hard. That’s why it’s so difficult for professors. . . . In the ones that I am talking about, it was pretty loosely structured. It wasn’t real demanding. Part of the problem might be because there were large classes. If you have a smaller class, you can have more discussion and that type of thing. If you are in a lecture, 200 people, obviously that can’t happen. And that’s not the fault of the instructor as much as it is just necessity. The university is so big. I think that has got a lot to do with it. C2,7
Well, I think that was his first semester here. He didn’t seem like he knew what he was doing. His lectures didn’t seem to really have a point. He seemed intimidated by the students. The next semester I had [another professor]. She was good. She wasn’t intimidated. She knew what she wanted to cover. She covered it in a way that you kind of were interested in it, you know? I think he just needs more experience at it. He needs more confidence in what he does. C3,5

It was a very boring class—a very ineffective lecturer. He seemed really nervous up there. I think he knew a lot, really. I just don’t think he could get it across to other students. He seemed really nervous. I’ve talked to people who went in to talk with him, and he never made eye contact. One girl went and talked to him, and he just kept apologizing for the lecture that day. I thought the class was really boring. The readings were long readings. I have trouble doing a reading, anyway. My mind always wanders, but when the chapter is that long, it’s even worse. Then that, too. There are some of the test questions, I could not figure out where he got it... I know my mind wandered in class.

I don’t think the test should just totally spring out at you, like it did for the humanities test, but yet reflect what was said. I thought, too, that if you read the material and then go to the lecture, the lecture should be the high points of the chapter. I don’t know if that was always necessarily done. [This professor should] relax... [and] organize. I think at one time he had this thing of notes, and he forgot that they were on the back, also. So, we had to go back and add all this stuff. I guess, if we read a chapter—have a point, maybe. Have a beginning, and an ending, and have the lecture be about something. Don’t just jump from topic to topic. Have the lecture reflect what is going to be on the test, and what was in the book, also. I’ve heard of a lot of students complaining that the tests don’t reflect the class. C16,5-6

I had biology at [another university], and I had the lab, and it was excellent. I carried a 100% average through the whole class. I was just so into this. The teacher was so wonderful. It was so individualized. We had small classes. It was wonderful. The labs were great. Then I came here, and I had the first phase [of general education] to
do, and I wasn’t interested in any of the science topics that were chosen, so [environmental science] was the one I chose. And I had a horrible teacher the first semester. I wasn’t getting anything out of it. I was interested in the subject matter, but he didn’t know how to teach it. He didn’t know he was disorganized, and I just hated it. I had to drop, because I wasn’t getting anything out of it. I went to class every time, but I wasn’t getting anything out of it. The book was hard to understand, so I dropped. I still wasn’t interested in any of the other classes, so I took it again over the summer. . . . I ended up finishing the class, but I didn’t do as well as I would have liked to have done. C13,3

Many students describe instructors that cannot teach. For them, the verb teach means to convey information in such a way that they can understand its meaning and do well on the exam. They do not usually question the instructor’s level of scholarship; they simply mean that in this general education class, they do not learn anything they value as a result of what the instructor does.

The professor knew his stuff--it was [math]. He knew it, but I don’t think he could teach it. I had a different math professor for the first math course I took. He was teaching me things that I didn’t know anything about either, but he explained more. I’ve only had one bad experience with a gen. ed. course. E10,6-7

For some students, bad professors do not care about general education students because they would rather not teach this particular course. The perception of these students suggests that students suffer when apathetic professors teach courses that they must register for.

[For one general education course], none of the professors want to be teaching it, and they have to be teaching it. C2,4
There was one professor that I had last semester—I actually dropped his class—who kind of had the attitude that, "You are here. I don’t care. I am just getting paid to do this." It kind of gave me the attitude that he didn’t like being here. He said, "I come here, and I do my own little thing, and I go home." I didn’t like his attitude. I always thought that professors’ doors are open. Most of the professors I had—all of them in fact, except him—have been really helpful.

I dropped the course because he just accused me. His tests were really hard—but I wasn’t trying to go up there and plead to him to change my grade or feel sorry for me. I didn’t do very good on the test, and I just told him that I studied hard for it, and I want to know what would be a good way to prepare for his tests. He said, "Don’t give me that. A kindergartner can pass my tests." I didn’t really like that comment. So, I dropped his class, which ended up being a mistake because it put me on probation. But in the long run it helped me, because there would have been a lot of stress. . . . One person got so fed up with his test that he wrote Christopher Columbus for all the answers and left. [The professor] basically punished the whole class, saying on the next test, "I’m not even going to give you a study guide. You will just have to guess." This guy has a serious problem.

I think, first of all, he wasn’t a professor; he was a lecturer. I don’t think he understood the students very well. He was just someone who knew a lot about history, not really a lot about teaching and what people expect. He wasn’t fair. Most of all, what students look for in a professor is that he is fair. I don’t think they mind if they are difficult or not, as long as he is fair with the grading, and he is not a stickler. Most of the professors that I have had here have been really fair. He wasn’t.

I always had an interest in history, and I was really looking forward to his class, and he really turned me off. I just couldn’t believe his attitude. I wasn’t going up there looking for a fight. His attitude is what turned me off. If it would have been a different professor, or teacher, then I probably would have stuck to it. I think professors make a big difference on how you perform in a class. C15,9

Professors feel student criticism when students resist participation in classroom activities. Some instructors
apparently surrender in frustration, leaving the classroom in the middle of a class meeting.

I am sure it is hard for the professor to stay upbeat all the time when the students don't want to do anything. I have had a couple who have came in and said, "If nobody is willing to take part in this, then neither am I," and walk out. E12,13

I began to wonder where students discover the value of participation to their education. Curriculum designers might ask whether good professors should more diligently teach the value of participation as a part of general education.

**Professors Do Not Like to Teach General Education**

Students clearly expressed their perception that, given the choice, many professors would not teach general education classes. If I wanted to seriously pursue this possibility, then I obviously would have begun interviewing the faculty. Within the parameters of this inquiry, however, I wondered what affect student perceptions of faculty attitudes might have on accomplishing the goals of general education.

**University Faculty Do Not Value General Education**

By the end of their first week of class, most freshmen have discovered that, based on class size, general education must not rank a high priority for the university.
Students accept this phenomenon as an inevitable necessity and often describe their commiseration with the teaching faculty.

I'm not condemning [the university's commitment to gen. ed. based on class size]. It's something that I observe. I understand the reasons behind it. I personally think the professor's commitment is lessened. There is no personal interaction. There is no building a relationship. There can't be. There is just not enough time. That is just something that can't be helped. I also think that in certain instances professors use general education in the same way students do--blow-off. Easy. Basic Pablum for students to digest. That's about it. It lowers your overall commitment, just in general. E6,6

Some [professors] say, "I have to teach this. It is a gen. ed. class. Let's get it over with." I have had a couple that were like that. They just wanted you out of their class because you were not going to major in that area. . . . Others take the time and make it interesting to somebody who really doesn't care and keeps their interest up so that they at least get through the class without failing it. C7,10-11

You've got the teacher, who has the qualifications--kind of likes to teach the class, you know. Doesn't hate it, but doesn't enjoy it a whole lot, and get into it, but yet [you] will have more course work. And then there is another group who just doesn't like teaching the class, and he just gives you a book to read every week. "Write a report over this--write a report over this." He is not giving much lecture time. Maybe he doesn't know what to teach or how to teach it. And he is not real enthusiastic about the subject matter. C13,2-3

Apparently the value of a general education course often reflects the professor's commitment to the place of the course in the university curriculum. Some take it seriously; others do not.

It depends on the instructor. Some treat it like, "Yes, we know you have to take the class, so you know
it's going to be real basic." Some make you really work, and say, "I know it's gen. ed., but you still need to learn this. Try to challenge your abilities." But it does, it depends on the instructor, because I have had both. I have had some where I wasn't challenged at all, and I have had some where I had to work my tail off. C10,12

[If the professor takes general education seriously], I see a wonderful potential for student growth in that class--particularly my own. If they really believe in what they are teaching in that class, and use the most effective ways that they can think of to teach that class, then by all means people are going to want to go to class, and they are going to want to learn about what's in there, and it just makes the whole class go much, much easier the whole semester. Not necessarily that there is much less work, it's just that people won't mind doing the work. And they don't have near as many complaints about doing the work. C18,11

Professors Prefer to Teach Courses in Their Specialty

When universities recruit new faculty from research and doctoral-granting institutions, the new faculty prefer to teach about what they learned in graduate school or while working on a research project rather than to develop and teach a general education class. Students sense that faculty feel insecure when they teach in a manner for which they lack specific preparation.

To be quite honest, she was a great instructor, but I think she approached it in somewhat of an apologetic manner. I realize that being an instructor of maybe not such a popular subject with a lot of people is probably not the most exciting thing to do. Some people just can't get excited about it. Teaching an upper-level course, I am sure, would probably be more-you feel more secure in there. You know these people want to listen to what you are saying. E16,5
Some of them don't like [teaching a discussion-centered general education course] because of the way that it is taught. Some professors do it as more of a group conversation. Some others are just straight lectures. Some don't enjoy teaching it, so it reflects onto how they teach it. C1,7

I am interested in the environment, and things like that, but I feel like the teachers who are teaching it--they have to teach it, and they are just there. I mean, I have heard all kinds of stories about teachers whining because they have to teach this class. Everybody has to take it, and everybody is pushed into teaching it because there are so many people to teach. And I feel like they don't put effort into it. They don't explain things. They don't get into detail. They just have discussions every week over certain things. I want more activity, maybe. C13,2

Some students conclude that faculty must receive pressure from their administrators to teach courses in the general education curriculum when they would rather not.

Well, not forced into it, but you know. I have a friend. Her [senior seminar] teacher is a psychology teacher. He didn't want to teach it at all. And so he said up front, when the class started, "I am not interested in this field, but I was told to teach it," and basically they got bad vibes from him. And things started out bad, and that is how the whole class has been, how the whole semester--[my friend] doesn't go to class, and when she does, one day he just got frustrated and walked out of class. C13,2

This is an exaggerated example--that I am going to be learning about English and dramatics from somebody in the math department. It seems that weird, that there is almost that big a leap. It makes me wonder, "Is this person really qualified?" Especially when they say, "This is my background, so my background really isn't this. But I have been assigned to teach this class." . . . My response is that I really don't think you have the full background to teach the class--and what is the full background? You would have to identify that. . . . It's that whole thing about--are they coming in and going, "This is a class that I've got to teach." . . . The course is doomed for the semester. C18,9
I began to imagine that good teaching in general education may benefit from some rather direct administrative or peer coaching of faculty as to how students perceive what instructors say about their own work.

Professors Assume Students Do Not Care

Students believe that professors assume students do not care. The student perception naturally suggests why these instructors would prefer to invest their serious time elsewhere. A cycle of failure to take responsibility for learning may result.

I have had teachers—especially in gen. ed.—that didn’t want to be teaching you because you didn’t care, or they assumed you didn’t care. That makes it very stressful to get through that semester. C7,4

I think about the most any professor has ever said is that it is required, and that you take general education to be a more well-rounded student. That’s all I have ever heard—a lot of teachers say, “I realize that you have to take this class.” C8,3

The logic here implies that, because students "have to take the course," they will not demonstrate motivation; therefore, faculty will not become motivated. This perception raises a question about who takes responsibility for learning. Appearances suggest neither faculty nor students have made a serious commitment in these instances.
The Role of Advising for General Education

Some Students Fail To Receive Good Help

Selecting Courses

Lack of good advice from somebody who cares, when students perceive the need, must seem unjust. Many students believe that general education represents a bewildering assembly of unconnected classes and that no one wants to suggest a meaningful way to negotiate the curriculum.

I think I might ask the instructor I have now for [environmental science] and just kind of ask around people in my dorm and just people I meet. I definitely want some more input than I am getting now. I am blindly choosing classes and not knowing what I am getting into. E11,5

I signed up a week before school the first semester. I just went through admissions and got in. I didn’t actually have an advisor that I sat down with. I was a little confused by [the schedule book], as a matter of fact, because I didn’t--I kind of expected something to point me the way. But, not really paying attention to that kind of thing, I just kind of went at it. E16,3-4

That [first gen. ed. course] was a big mistake. I didn’t even need it, because the category that it completes--it is also satisfied by [another course] which I am required to take for my major. E15,4

Orientation Sessions Provide Advisement

Freshmen and transfer students may take part in orientation sessions where they receive advisement from students, faculty, or staff from the university. Some of the frustration expressed in these student quotations no doubt comes from frustration with a new and complex system
imposed on their life, but knowing the degree to which
students carry this frustration with them suggests that a
cautious approach at orientation sessions may reduce trauma
when possible. Getting students registered and on their
way represents a common theme.

R: As a transfer [student] they just said, "You need
to know your major, and you have to pick your
classes." Well, they didn’t really give you any
advice about each class. [I felt] left out.
Q: You wish that you had been treated like a new
student--that you had been assigned an advisor?
R: Yes. Maybe that you were given more information at
an earlier time about all the different majors that
you could major in. At the time, my problem was that
I didn’t know what I wanted to major in. If you
didn’t, you were just lost. E2,3

Well, there were just student [advisors at summer
orientation]. It was basically just freshmen, and I
think any new students. They just had like juniors,
upperclassmen, that were helping things out. They
divided us up by whatever our major was, and they told
us: "You have to take this math course. You should
take this business course. You should take this.
Then you have this many gen. eds." Actually, they
told us not to try to take humanities the first
semester, because they thought everything was already
full, and by the time we get in to register . . . So
they said, take something else. E14,4

When I went to my freshman orientation, the person
there who helped me figure out my schedule told me to
take that class. And I believed her. It turned out
that I hated the class, and I didn’t even need the
class. She was a student. She was a junior or a
senior, and she was in charge of five or six of us,
helping us with our schedules. We were all [a
particular major] that she was helping. She told us
all to take [a particular course], and we all did not
need it. And I didn’t know that until I met with my
advisor the next semester, and she said, "Why have you
taken this?" I didn’t know why I had taken this. She
had told me to, that girl at orientation. E15,4
It was at orientation. You sit down in the [large room], and you have all these tables and everything. Student helpers are saying that you need to take general education. I picked up these courses. I picked humanities. I guess trying to ease into college. Picking the courses that I would be most interested in. C4,1

R: When I was a freshman and I was up here for summer orientation, I didn't know what science course to take, and they said, "Take geology." It was interesting, and I liked it, but I didn't do very good in it. My biggest problem was that it was that they told me it was [an entry level] gen. ed. class. They wanted to know if I was interested in that kind of stuff. I was like, "Yes." But then, after I get three quarters of the way through the class, he is standing up there saying you should have taken this, this, and this in high school. And you should have done all this stuff. The problem was I hadn't done that. That was my problem with the class right there, and I was kind of upset with my advisor that he hadn't bothered to inform me of that. At the time, I was a finance major. By the end of it, I was an undecided major. I don't think there were that many students that I talked to. They were faculty. They were just like, "Take gen. ed. until you get started and get into it," because at the time I didn't know what I wanted to do. I think they were more interested in getting me registered and getting me out of there. I think there were so many students, and everything was so involved, that they wanted to get you started and get you registered and get you out of there.

Q: There were 400?
R: At least. And that was just the second session of the summer, and they still had tons more to go. I was one of the lucky ones that got to register at 8:00 in the morning, because by the time all the rest of the students got to register, later that afternoon, all of the classes were just closed. C8,1-2

[Summer orientation] was pretty interesting, actually. I thought the people who were putting on the program were kind of ridiculous, actually. They were students. They put on little skits. . . . They gave us a packet with all of our information. Then I got to register, and I took all gen. ed. except for my oral communications. . . . There was one man here who worked in admissions. He was just wonderful. I believe he was the recruiter who came to my high
school. Knowing I was the only student from my high school, I went and talked to him. He was just great. When I came here, he helped me out. He helped me get settled and organized. I guess he wanted to get more out-of-state students here. I came and auditioned for the music department. I didn’t know that meant I was going to be a music major. That’s what they wrote me down as. They put me in a group with somebody helping music people. So when I said, "No, this isn’t what I want to do," they really didn’t know what to say. So then they just helped me pick out some gen. ed. classes. C10,3-4

Students noted that if they do not know what their major will become at the time of registration, they take general education. This practical message demeans the curriculum if not delivered carefully. Students recognized that a problem with orientation results from the poor ratio between qualified advisors and the multitude of students, which leads to a lack of time for serious, meaningful interaction.

Well, at orientation they said, "Try to take a wider range [of gen. ed. courses]." They had students helping us register. I also had an advisor—right before I registered for my classes. She kind of helped me because I was going to take these two classes together, and she didn’t advise that because they were both going to be a lot of work. She said, "Maybe try to take them two different semesters." This was right before I came to school here. It was in June. C16,1

An Academic Advising Center as a Resource for Students

Only one student mentioned that an academic advising center provided assistance when needed. I list this one reference in a student quotation simply because this center

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
appears unimportant or unknown to students who apparently could benefit from their assistance.

That [advising] is part of why I switched to [another major]. They are a big help, too. It is an academic advising center . . . C4,1-2

**Family Members Play a Minor Role in Advisement**

Relatives, especially parents, play a role in determining which curricular pathway a student may take. Students whose family members have experienced the university system claim a minor advantage because relatives can provide advisement at registration time. Sometimes the best advice they receive encourages the student to look for better advice. After much reflection, I concluded that students may often think of advisors in the role of a more experienced parent than their own. As such, students become disappointed when advisors do not share their parents' concern about their work.

[My parents] want me to decide on a career and work toward a career. I am going to get my degree and see what's out there. When I dropped my education major, they were distressed that I was not going to get a job--especially as a musician. They are right. I decided that I would add my Spanish major, so I could be a translator or anything. Anything that I could do, if I could do it in two languages. That's sort of what I am thinking. They are thinking, you had better decide what you are going to do, and take those classes, and get out there and do it. That's not what I am thinking at all. . . . I sort of think of it as, well I am here to learn things, but to learn more things than how to do a job. Like diversity, and things like that, I pick up here. Even if I take a class that I don't need to take. I haven't had time to, but there are some that I would like to. I think
my parents would discourage me from doing that because
they would like me to hurry and graduate. E15,6

R: [My parents] were supportive--take what you think
you can handle. And everybody said that 15 hours was
a good round number to take. So that is what I chose.
Q: You never talked to faculty about which courses to
take?
R: No. E2,3-4

Probably because they had more time to listen and
reflect with students, parents considered why students
chose certain classes, beyond just what the courses were
about.

My Mom went back to college when I was younger, and I
talked to her about this sort of thing, too, and she
believes in the well-rounded student. We discuss the
classes I am taking and why I am taking them. E8,1

I actually talked to [my mother]. When I was
registering here, I was looking at the different
classes to take. When we looked at it, since I was
really thinking about going into environmental, we
read the course description, and it really seemed like
the best course to take to head in that direction.
E8,2-3

[My mother] was kind of worried because I told her I
was going to try to take 18 credits again. She
noticed that last year I only took 12 credits. . . . I
told her that I wanted to take a bunch of major
classes at once, and she felt like I was jumping into
something I wasn’t necessarily ready for. . . . She
was also pushing for me to choose a sociology major,
so she was trying to get me to take some of those kind
of classes, which was perfectly fine with me. E11,4

[My brother and sister] just kind of familiarized me
with the way things are set up. They went to [this
university], too. I would go to my sister a lot with
questions. She lives in [the same town]. I could
call her up and ask her. C2,1

My humanities classes I chose because my brother had
the same professor. He really liked him. And I
really enjoyed those courses, too. Then I just kind
of went by what interested me more. . . . That's how I chose most of them. But it was also what fits into my schedule and what's open. . . . If someone tells me that a certain professor is very good, or something like that, then that leads to a decision, too.

I am usually the one who has to give advice. Once in a while I will get a recommendation for an instructor. I usually do it on my own, or with my parents. My parents help me out quite a bit sometimes. C10.5

Many types of advisors typically serve students who feel the need. Often students deal with advisors as a formality or out of respect. A few students genuinely appreciate the help.

Formal Faculty Advising Becomes a Nightmare for Some Students

Most students know that the university system provided them with a formal faculty or staff advisor early in their enrollment. I learned that many students remained so intimidated by these advisors that they could hardly bring themselves to visit them. When they did schedule an appointment, students thought they must necessarily satisfy the advisor rather than focus on their own needs. Faculty advisors often treated students in such a way that they dreaded a return visit, and a few students decided they must find a new advisor or do without.

Students seldom described faculty advisors as helpful, courteous, or genuinely interested in their progress. Most faculty seemed unable or unwilling to provide much guidance with general education courses, and this seemed unfortunate
to students because inexperienced or unsure students
naturally channel toward general education courses first
until they find their own interests. In general, students
received the message that they wasted their advisor's time
with each additional question.

Actually, I only really remember talking to him once.
I didn't really like him, and I got the impression he
didn't really like me, so I only went in to get my
sheet signed and that was about all that I was ever
around him. It seemed like he almost talked down to
me. I did not like that at all. Like he had better
things to do than talk to me. I guess maybe he did,
and maybe that was why. I wanted to let him do his
thing, too, but I didn't like the way that I felt like
I was--like he felt I was intruding on him. He
appeared really busy. . . . That's the way he seemed
to me. He was always doing something, and I
interrupted him. That put me off to going in to see
him. I didn't want to bother him, but I also didn't
want to feel like I was being a pain. C9,3-5

R: I think I went to the undecided area, and I thought
I was going to get some help, but I ended up even more
confused when I left. It was awful. But, I guess I
thought I kind of told her where I wanted to go and
different things. . . . It was interesting, because I
told her what I had taken at [community college], and
what I liked, and I was kind of asking her for
different options of what I could do. She ended up
giving me this wild schedule.
Q: Was it too much?
R: No. My God, I made the dean's list! But I am not
going to this semester because I am kind of
floundering around. But I said something about
psychology, and she told me too many people are in
there. And so I said something about the sciences,
and she said that's too hard. I'm like--I don't know.
We talked about family services. Then she threw me
into social services. By the time I got done talking
to her, I didn't care where she put me. I just wanted
to get out of there, which isn't how it should have
been, but . . . Oh God! C14,1
I went to see him once, and he didn't know anything about anything else but the classes he taught. So, he wasn't very helpful. E4,10

I haven't actually talked to him very much. I mean, he didn't really play a role or anything in my decision. Actually, I feel I have needed [an advisor.] I've kind of been given the brush over, I feel like, from my advisor. I have just been registering for classes for next semester. It didn't go over very well because whenever I went in to see him he was busy doing something else, and I didn't feel like he was giving me enough attention that I needed. I kind of just blindly picked my classes. So I hope I made the right decisions. I needed to talk to him. Like this morning I had to register at 8:30, and I went over to his office, and he wasn't there and wouldn't be there until 9:30. I had a class at 9:30. I was talking to his secretary, and she said--"Well, I could sign it for you." She looked at the schedule and said, "Eighteen credits, that seems like an awful lot."

I was telling her I thought I could handle it. I am taking 18 credits right now, and I didn't think it was a problem. She was telling me a couple of the classes she thought she didn't know if I should take at the same time because it was a high difficulty level, I guess. So I just felt like--she signed it eventually, and I didn't get to talk to him. It just didn't work out very well. There are two advisors [in another department], and that's all they do--I assume because of the need, and there are so many people who have that major. She is the only one here that I talked to about that. I remember the school I was at last year, I remember hearing stories about: "We kept going to their office time and time again. They are never there." and "They are always busy." I haven't really heard about any other horror stories like that here, but I am sure they are around. I just haven't talked to enough people about it. E11,2-4

Students commonly stated that a secretary offered to sign their registration form, but as far as advisement, students perceived faculty as hard to find or unwilling to provide time to listen. Students often wanted counseling more than permission to register, and they became indignant
when their faculty advisors failed to perform as they expected.

[My advisor] is not very helpful. . . . [He] just looked at my schedule and signed it. He didn’t tell me anything about it. [I felt like] the school was too big, and they didn’t have the time to care about each individual student. I am basically on my own. E4,2

R: When I went to register, I asked [my advisor] what the class is about, and nobody knows. I said, "Isn’t there a book that I can get that tells what all these classes are about? They go, "Well, I think you can get it. . . ." Nobody is too sure about where I can get it.

Q: [I show her the course catalog.] Have you ever seen this before?
R: Nope. I have seen the telephone one, but not that one. I would have loved to have it this last couple of years. They just told me what I needed to take, and I just took it. [My advisor] was new, too. She had just came here when I came. They don’t always know what is going on. E12,4-5

To begin with my advisor was mis-assigned. . . . I was assigned an art major. We were trying to find out, "Why do I have you?" Her point of attack was, "Let’s see. What have you got there? Looks like you have got 16 hours. Great. I’ll sign it." It really wasn’t a lot of communication. I thought I had some questions, but I am not really sure what my questions are, if that makes sense. It’s like, I think I should be asking something, but I don’t know. I have enough hours, so what’s the problem? . . . I would say that I never really did have an advisor. I did have one advisor that was concerned about my humanities grades. You know, it was pointed out that at some point along the way I should probably think about retaking these. It was more just because it looked bad on my transcript, and it was pulling down my grade point. . . . I really don’t think I have ever addressed an advisor about how I should be structuring these gen. ed. courses. C18,7
Some students floundered around until they found someone with the time to listen. This student found another student.

I never really had an advisor. I didn’t go to anyone in [my major department]. I went to academic advising. They gave me somebody. I talked to her once. That never lasted. Then they stuck me with my health coordinator. He and I talked a lot about it. He helped me out a little bit. Then I declared [a different major]. They gave me one there. I started a class there, and I didn’t like it. I decided I don’t want to do this. So I never went and saw that advisor either. Now I am working with [another program]. I became familiar with the student advisor over there. Now she has been advising me ever since. I have been involved with her since February or March of my freshman year. She has helped me quite a bit. I will go in to talk to her about something else, and we will go over all of my classes all over again each time and figure out what I have left and how I can best work things out, because I am going on an international study abroad next spring. C10, 4-5

Many students perceive that faculty advisors can waste their time and money.

[Geology] . . . was [duplicated] by [biology], I later found out. Astronomy . . . was [duplicated] by chemistry, I later found out. [My advisor] never told me before I took my gen. ed. courses. I wasted some money. My advisor never explained that these replaced those requirements. . . . When they sent me that little sheet [degree audit] in the mail, that told me how far I had progressed in my major. C1,1

R: I switched to [my major] so late that I had most of my gen. ed. courses done when I got there. They were just, "You need to take this course and get it over with." I have just one left, and that’s all they were advising me on. Before this semester, it was just [senior seminar] and the third [level] of humanities.

Q: Who will you talk to when you get ready to take that?
R: I have no idea. That’s why I have avoided it for so long, because I have friends who have taken them
and had bad experiences. I have never really talked to anyone who has had a good experience. I have nobody to talk to. So I will just avoid it until I have no other choice, then I will just choose, and go ahead and take it. C8,6

I hated it. [My first meeting] was in the Fall, right before we registered for the Spring. She was not very supportive. I had her for a class, so she should have known me, but she didn’t know me. I went in, and she was rude to me about taking that class that I didn’t need. She was really pushy toward--I wasn’t really sure that [this major] was the right major for me--telling me that I had to figure out my next 4 years that day in the office. "You have to figure this out now or it will never work out." I wasn’t even sure if I was going to stay with that major. My first advisor was very bad for me, and for other people too. She is gone now. [She didn’t have] enough compassion [for] one. She didn’t want to advise. She sort of wanted to control. That was part of it. The second time I went in I had finished one semester. I went in again to plan out the semester after that. We looked at my degree audit, and my grades were pretty good, except for that one class, and she was instantly all proud of me and nice to me. "Oh, look at your grades. That’s what I like to see," like she was my mom or something. The first time I went in with her, she was impatient with me. She didn’t want to spend any time with me. The second time I went in it was a complete turn around, but it was sort of fake. I think [it was based on the grades]. She might have been some kind of an academic snob. I do know of some friends of mine who have her who were taking classes for their major two or three times. She would say, "If I was a prospective employer and I looked at this transcript, I would wad it up and throw it in the garbage. I would not even consider it." She would be very rude and not very supportive in general. It was a bad experience. . . . She knew that she was hated. It was really that people hated her, and she knew it.

My advisor is messed up now. At first I went to the generic undergraduate advisor for the [particular] department. Then I went to the [specific] undergraduate advisor. I had already changed my major to BA, so I was no longer a [type of] major. But they left me there anyway. Then I was told that [a particular person] would become my advisor. I thought for a while that it was him. I think I have to go into the office and get it straightened out, because
there are three people who might be my advisor, but they are all claiming that they are not. They'll say, "No, it is not me. It is so and so." I do have an advisor in [a foreign language] department, so I have him sign all of my forms, because I don't know who my [major] advisor is. Advising is sort of a problem right now. Last semester, it was, when I was trying to get permission to take an overload of courses and just to have my registration form signed. None of them wanted to sign it for me. It was terrible.

I didn't even know the format until I transferred to general studies two semesters ago. [My new advisor said], "I cannot believe that you went through your whole college career and have no idea where you are going, what classes you were taking," because all my other advisors wanted me to take my majors classes and get those out of the way. She sat down with me for over 45 minutes and said, "This is what you have to do. This is what you have to take." And it was great. Now I only have like 40 hours left after she sat down with me finally and said, "This is where you are going. You can be done in like a year and a half."

My advisor was in the [departmental] office there. I was told that all I had to do was have him sign it. I took a [major] class and a couple other ones. I think we sat down for like 2 minutes, and he said, "Maybe you should take this instead of this," and I said, "OK." I never even knew there was a plan. . . . I think he gave me some papers on what classes I had to take, and that kind of stuff, but I didn't really understand how all that fit into things very well--which I didn't really pay much attention to anyway.

I just felt that my advisor--he's the head of the department--he would know everything. A couple of times I went in to talk to him, I just got the runaround. I was just so frustrated that I just kind of blew it off. . . . I really wanted to change from him this semester. This semester I am taking five gen. ed. classes and one . . . for my major. I felt like it wasn't very challenging. So I just took full force and took all these [major] classes at once. Hopefully I didn't do anything too radical.
I had to meet with an advisor when we were registering for the second term. They kind of said, "You need this and this before you can go sign up for that." It wasn’t basically what you like, but this is what you have to take for the major that you are going to have. That [advising] is part of why I switched to another major. C4,1-2

I changed my advisor at the end of the year. He was just not very nice to me. The second one I really haven’t met with. I am going to meet with him in a week or so. E7,2

I don’t think a professor would be real knowledgeable [about advising]. E4,10

Faculty Advisors Do Not Care Which General Education Courses Students Take

Whether an accurate perception or not, students believe that for various reasons their faculty advisors do not place much value on selection of general education courses. They seem to receive the message that they should finish their general education using their best judgement to choose and then get on with what counts.

This is a theory that I got from my advisors—professors who have been mentors to me. You kind of want to have your general education pretty much done, at least by your senior year, if not by your junior year. That way, the gen. ed. also serves the purpose where it acclimatizes the student to collegiate procedures—how to write a paper, how to take notes, how to do a college test. That kind of stuff. And so they kind of break you in for your major courses, which are supposed to be, ideally, tougher than your general ed. courses, because they are more specific and go into a little more detail. And so, that’s why I wanted to have most of it done by my senior year. So I could get into my major course work intensely. E6,2

I think in my major they encourage, "Take this. It is a wonderful class. Do this and this." They don’t
push it on us, but they know we have to take it, and we know we have to take it. They don't encourage what [general education] we could take. I just can't remember at any point where a teacher said, "Now [student], this is why we take gen. ed." . . . I never had a discussion like that.

C13,9

[I]t's almost like they are not particular as long as you get the requirement fulfilled. I understand why it is done. I think particularly at this university you get a lot of advisors who are overloaded with students, especially in departments that have a lot of students in them. So, you want to make your advice as concise as possible. Plus, I think with me personally, my advisor and I have an understanding that I am an adult and I will choose what I want to do. E6, 3

After I declared my . . . major, the head of that department was my advisor. She helped me pretty much. Her knowledge was helping me decide what to take in her department, mostly. I had a course catalog with a description of classes, for the gen. ed. and everything. C12,3

[My faculty advisor] gives me a lot [of advice] in my [major] area. She was recommending different professors and said, "Oh, you'll love her. She has a wonderful personality," or "This class I know is a little tough, but you will be able to handle it with the background that you are getting from your other classes." I don't think we talked so much about gen. ed. because I am almost done with it. E13,4

We didn't really discuss that much on gen. ed. I just said, "I am going to try to take a gen. ed. course this semester." He didn't really advise me which of the list would be most important for me to take. I took intro to psych just because a lot of people said an education major should have a little bit of psych. So I took that. But a lot of them I just picked out of the top of my head and said, "This looks OK." But he didn't really influence that. He was more of my science [advisor]--getting that going. C7,11

I have [an advisor] for both of my majors. And, I really am supposed to have [a] signature. So I have to go see him for that. I really don't use them that much, because they really don't know what they are
talking about, I have found. So I usually just go over and talk to an auditor, because they are the ones who will decide if I graduate, and they are more helpful. One professor will tell you one thing, and another one will tell you another. One will say you have to have class A and another will say you have to have class B. If there is not even an agreement within the department, it makes me really nervous. So I would rather just go to someone who knows. [The departmental advisors] basically just deal with the major classes, and that's it. C2,3-4

Professors Other Than Advisors Sometimes Advise Students

Students often eventually find help from professors who assert their responsibility to help students. These professors may bring this idea about the role of advising with them from their own previous experience.

R: Actually, I talked to a lot of teachers who weren't my advisor. I was looking for any sort of guidance at all. I went in and talked to [another gen. ed. teacher] who teaches world geography. That was a really big class, and he doesn't know me. I just went in one day and talked to him. And [two humanities instructors] I talked to.

Q: Did they have the time and interest to talk to you?
R: Yes, they did. They all did, more so than my advisor ever did. Now my [foreign language] advisor always has time for me, too. I generally go see him now. E15,4-6

Students Believe Advisors Can Tell Them the Value of One Course Over Another

Because some faculty advisors receive students assigned through a departmental system, perceptive students recognize that their advisor may hold an opinion on a general education course based on a practical preparation for work in that major.
If there were two [gen. ed. courses] that I didn’t know anything about, didn’t know which one to take . . . he is very knowledgeable in the subject. I could go to him and say, "Which one of these classes would help out more?"  E9,3

[From students] I get [advice] for the professor to take, not necessarily the class to take. From my advisor, I get the classes I should be taking--what will look good and get me a job when I am done here.  C7,5

**Students Recognize Some Good Advisors**

Not all students report dissatisfaction with their advisement. Qualities of a useful advisor appeared in several student stories. By far the most frequently cited characteristics of a good advisor, students want time and serious attention to their concerns.

We had a freshman advisor who was the department head. . . . I haven’t talked to him too much other than for registering for classes. He has helped me out with a few different things. . . . In gen. ed., he has been helpful. He has been there. And usually when I am going in to talk to an advisor, I have a question I don’t know how to answer, and I am expecting them to talk more than I do. Usually he does. One of the qualities of an advisor that is really helpful is the ability to branch off into different topics. If a student needs help, but really doesn’t know what he is asking, you need to talk for a while, until you kind of find out what’s going to happen. Or you bring up something that the student wouldn’t have brought up otherwise.  C5,5

My advisor appeared on my audit, and it was [a professor in a department] because that was my major. I never saw him at all. I called him a couple times, and he helped me over the phone with some questions. But other than that, I have never met [him]. [A certain professor] is my advisor now. She is real helpful. Every time I see her she [talks about gen. ed.]. She discusses with me the courses. She showed me which [classes] were full and which ones I could take with my schedule. She told me which instructors

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
she thought would be the best, from students' responses and stuff. She told me [a particular professor] had some good responses from students--that she was a good instructor. C15,3

R: I had an advisor in [another department], too... She's great, too. She's my hero. I have a lot of respect for her. If I have a question in [that discipline], she is very helpful... I am worried about taking a statistics [course], because it is another math course. She said, "Take this professor because she is really understanding to people who don't like math."

Q: Her advice was that the professor is what gets you through a tough course?
R: Yes.
Q: Do you find that is true?
R: Quite often. She recommended three different professors for me... I kind of had the impression that they are fun. They do have a lot of similar thoughts. A way of teaching. C17,4-5

Actually, there are two advisors in the [department] and either one can talk to you at any given time. In the beginning I talked to [one advisor]. Both of them were very friendly and very willing to talk. They seemed like they were there to talk to me. I think that they do seminars here and there, but most of their work is to advise the students. I think that if [other departments] can find professors that have enough time to do it without pressuring them--like they have to feel like they are being intruded upon--then that is fine. But I think that if that is the feeling that students get, then they should have just [full-time] advisors. C9,3-5

Many students agree that the solution to good advisement lies in full-time advisors committed in every way to student needs. They do not believe their teaching faculty care enough about student needs to do an adequate job of advising.
Some Students Confidently Choose Their Own Courses

Many students seemed confident in choosing their own courses. In the following quote, the student showed "consideration" to the advisor when the student "allowed" the advisor to play a role.

I am pretty independent, by my choice. I talk to my advisors once in a while. I go in and have them sign the sheet that I need to register--things like that. But, my freshman year I got the sheet that explains everything that I have to take, and I made up a plan myself--what I was going to take each year. And I stuck to that, so I see my advisors once in a while, but I stop by just to update them on what I am taking so they feel like they are a part of what I am doing. C6,4

I can imagine that many faculty advisors would say, "Amen," but I think relatively few 18-year-old students can meet this challenge. Yet, some students just do not need advisement.

I want to get [advisors] out of the way. I don't rely upon--I don't go to the counselors and ask them. I know how much I can handle and how much I can't. E3,7

I talked to him a couple of times. I pretty much knew my path. I knew what I wanted to do. . . . I have really never found a need to go back. C11,4

The following student recognized that some advisement would have been helpful but made the choice to become self-sufficient.

I didn't really talk to people about it. I should have. I had my resident advisor on the floor. I just found out she is a political science major. I definitely should have talked to her about who is a good professor and who isn't. But I didn't make use of that kind of a resource. . . . I kind of just
bought a course catalog and looked at the courses for myself and tried to puzzle it all together. . . . It said basically the gen. ed. stuff that you had to take, so I was just kind of working with that for a while. . . . Part of it is that I didn’t take the time to ask [others.] I’m sure that if I had they would have been a little more helpful. Ell,2-4

Selecting General Education Courses

For the first semester freshman, selecting general education courses often represents an act of faith between a very inexperienced student and an advisor who initially may know little more than the advisee’s name and the courses that remain unfilled. Experience eventually provides students with increasingly complex motives for choosing general education classes which complete their degree requirements. I enjoyed learning about the fascinating and diverse network students use in the selection process.

Looking for “An Easy Course That Fits My Schedule”

A look into the course schedule book simply overwhelms students with the necessity to negotiate the network of dozens of general education courses. Add to the students’ confusion another option of choosing from literally hundreds of different instructors, depending on the semester of enrollment. No wonder students develop their own means of coping with course selection, and they freely share that system with their peers.
Students quickly learn that not all courses with the same name or at the same level in the general education sequence exhibit the same degree of difficulty. Sooner or later most students experience a course that encourages them henceforth to inquire whether one course might be easier than the next. I learned that "easy" represents many meanings to students.

Commonly, "easy" means "relative to other courses I need or want to take this semester. In general education, I can choose my courses, so I will take a break."

It is pretty much a perception. If somebody asks me which course to take, usually one of the first questions I ask is, "Do you want to learn something, or do you want an easy class?" Some people just want to go ahead and get through a class because they have something else that semester that they know is going to be bad. Right now I have got electromagnetic fields that I know will take a lot of time. Even though my mentality is to get things out of gen. ed. courses, I would be tempted to take one that would be moderately easy. C5,5

In general education, for instance the [senior seminar] class that I am taking, I was enrolled in it once before. I dropped simply because I thought the amount of work required in the class, being a two-credit class, was absolutely over the limit. There were papers due every week, and presentations, and discussions, and I am going, "OH!" That really flustered me, and I thought, "I really don't need this at this point." So it's a lot easier for me to drop. Now I am a senior, and I am going to be graduating next fall. Just because I know of my schedule this semester, when I signed up for my [senior seminar] I said, "OK, there is this one professor I know I don't want," but ... I got all of the rest of my schedule figured out, and I said, "Where's a [senior seminar] class that fits into this schedule?" and I said, "There's one," and I took it. So the professor wasn't as important. I narrowed it to three options that I
could take. "What do I want? I don’t know any of the professors." So, I just picked one. C18,3-4

I just heard things from friends [about taking the course]... that it was easier than the other classes... I needed something to give me a break. E4,1(N)

Basically, what I tried to do with my gen. ed. was to try to think about how much work is going to be in one of these courses. How much time am I going to need to devote? And then try to develop a program where I wasn’t going to be completely bogged down, but yet there were going to be a couple of heavy courses. C18,2

I took [a particular course], which I thought was a worthless class, but it was an easy A. They told me who to take, what to take, and like, "It is an easy A." You do that, if the class is easy... I have heard about the humanities. There are a couple professors. The curve is so great that, I mean, I had a friend that flunked every test and ended up with a C in there because the curve was bad, you know. I avoided it, because I thought, "If I am going to do this, I want to at least work at it a little bit. I don’t want to flunk every test and still end up with a C in the class."... This school is always, "Get your degree the easiest way that you can. It doesn’t matter if you learn anything along the way." It is frustrating, because, you get into that attitude, that mode. C8,5-6

Well, I heard [environmental science] was an easy class. That’s terrible, but I heard that it was--just because I am not a big science buff... [Science] is something that I am not overly interested in. I just know that I am not going to want to put a whole bunch of time into it if I don’t like the subject. I won’t want to. If it is something that I can get done, and it is going to be practical, and I can use it some way, yes, maybe [I will select the class]. E9,2

[All I would do is try to ask everybody else, "What is the easiest class to take?" That’s how I would map out my gen ed. And then I wanted to take classes that I would like--and that’s my design. So I would overload on my major and try and get around gen. ed. E12,3

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Just what kind of tests, how many tests, how many papers, you know. Is it a lecture course, or is it mostly all reading, because I have a lot better--I have always been able to go to lectures and take notes and do better than if I read the textbooks. It takes me a lot longer to read the textbooks, and there just isn't the time . . . . Or the professor is hard to understand, or the amount of material. . . . I had a gen. ed. course [where] I really enjoyed the professor, and I enjoyed the course. But it was awful hard to understand. It was a foreign professor.
E10,2-3

Many students look at a list of possible courses that fulfil a category and select the one that looks the most comfortable based on their background.

My science background was pretty weak in high school. I didn't want to jump into something very advanced. Like physics, for me, would have really blown me away. So in talking to like my neighbors on the floor, they said that [environmental science] is a pretty good start and [human biology] is not hard to grasp, with all the math and stuff that physics or chemistry would have been. And chemistry I didn't want to take. . . . [Environmental science], there's a lot of [different] classes. It's easy to fit into the schedule. . . . [Human biology] seems like the best thing for me to take next semester. E8,2

I think the ones I have talked to took it because they thought it would be a little bit easier because they were introduced to it in high school. Then, when they take it, they realize that it is a blow-off class. Because they had it in high school, it is not any kind of a challenge. They thought it would be. I think they thought it would be a little beyond high school level, like they would review a little bit and then build on. C6,9

The difficulty of the course, and the general content. It's just easier. When I look at chemistry or physics or whatever--it's a little overwhelming. I elected my one math class at college, then I take my three science classes and move on, because it is not an area that I want to spend the rest of my life dealing with. It just seems like the best option for me to take. And I think the biology class I took in high school
was probably the strongest that I’ve ever--really--
that I had. E8,3

In this last quotation, the strength of the biology course
from high school determined the choice of the college
general education course.

Naturally, students make the connection between good
teaching and the difficulty level of a class. Good
teaching makes the class seem easier and students select
those classes from which they can probably learn something
that will help them on the exam.

I guess it would depend on who people recommended as
an instructor then, too. If I heard that someone was
really difficult, really did not convey the
information very well, or whatever, then I would try
to avoid that class. If it was the only one that I
had fit in, I probably would take it that semester...

In a way it doesn’t matter to me either. The
[foreign language] class I am taking this semester,
the instructor is pretty difficult, and she expects a
lot out of the students. But I feel like I should
rise to the challenge and meet it. I take more out of
the classes that are more challenging to me. But I
don’t want to be overwhelmed, because, once again, my
concentration should be on my [major] classes. It’s a
factor, but it’s not probably the main thing. Mostly,
what I can learn out of the class is important to me.
E8,4

[Advice from other students tells me] whether the
course is interesting or not. But usually about the
difficulty and how well the professor explains things
are going to show up on the evaluations--like
assignments, and tests, and whether it requires a lot
of work, and if you are going to be able to learn
everything that is on the test by sitting in on the
class and taking good notes. C6,5
Students Select Courses Which Are Interesting

Most students find at least one course in general education that looks too interesting to pass up. Others seem to develop their entire program around what "looks interesting."

I wanted to take astronomy just because I've always been interested. I have to take a lab course, and I don't want to cut up little things, or whatever, so I'll take astronomy. . . . I actually heard that it was challenging. It's something I have actually been disappointed with in [another course]. . . . When I heard it was challenging I thought, "Well, good!" . . . I guess that astronomy has a mystique to it. I guess it seems like sort of a renaissance person kind of thing to do. E6,3-4

Most of the rest of them I chose because the subject interested me or I heard the instructor was really good. I think there are students that look for the easiest way through. I don't know any of them. . . . Most of the people that I am friends with have more of an ideal like I do. You want to take things because they are interesting. If it is easy, that is great. If it is hard, you will suffer through it, but it is more for what you get out of it. For me, I think, that's the most important part now. . . . Grades aren't nearly as important to me as they used to be, not even close. C9,10-11

I took [environmental science] because it was about things I was interested in and I liked knowing about. That, and it didn't have a lab, like chemistry or . . . the other ones in [level] one. I took chemistry in high school just because it was a science class. . . . Actually a friend of mine had taken the class, and he said he thought it would be something I would like. . . . I think pretty much I wanted to take the astronomy class. I find that interesting, too, and I hear that the teacher is good, too. Some of the other choices weren't as appealing to me. That's what led me to that. I felt like astronomy would be kind of interesting. E7,2
Vocational Interests Determine Student Choices

Many students determine the general education courses in which they will enroll based on a vocational interest or on their major field of study. Students who enter college without a clear focus sometimes choose a major based on an experience in an interesting general education course.

Somebody told me it was over environmental things, and I am really interested in that. . . . And then after that I chose my major, which is natural history interpretation, so I’ll end up taking all these classes anyway in all those different categories, so I’m glad I took it first. E2,1

A few departmental majors apparently require completion of certain general education courses by their students.

[Human biology] is a requirement for my particular major. I don’t have much choice out of the others. E3,8

It was a prerequisite to my major. I questioned it at times, and I still question it at times. What does the environment have to do with what I am going to be doing with counseling? But I think it makes a big impression when you think about where these people will be coming from, where they are from, and what they are dealing with. Maybe that is why it is a prerequisite. I think the other one I had to take was [human biology]. I can understand that one because they go through the different life spans. Really, when I first began this course it was different. I didn’t know if that’s what I wanted to do or not. E10,2

Students Select Courses Because They Fit Their Schedules

Students cannot take a class that does not fit their schedule, but if it fits, that might enable them to register and fulfill the requirement. Although simplistic,
this reality pervades student perceptions of how they select classes. If they have identified their major, that becomes the focus of the schedule into which general education must fit.

[I chose courses by] whatever fit my schedule that sounded somewhat interesting to me. C3,2

I chose it mainly because it was the only three-hour one from [level] one. And, it was also offered in the summer. . . . I don’t really enjoy science very much, and I wanted to be able to take the condensed version of it. E1,1

We would get together and talk about “this teacher is harder than that one, and this one has better tests.” Most of the time I didn’t pay much attention just because of the scheduling times I had. I almost had to make it fit into my schedule. E10,2

It was a night class. I wanted to take a night class. E12,5

I really didn’t have much choice. I knew I wanted to come back, but I waited until July to register. There weren’t many openings in anything. We kind of just went through and saw what was available. E13,3

The time was right. I am not a morning person. I haven’t taken an 8 o’clock [class] yet. . . . [T]here are 30 some classes you can choose from. C4,4

Well, it was available at 8:00 in the morning. That’s about the only time that I had available every day. It just fit in there. I would say my schedule is most important--my majors classes. Then I will put gen. ed. wherever it fits. I see gen. ed. as something--it does give you a good background. But if I had a choice between some of the gen. ed. classes, I would have a preference. But when it comes down to it, I would see which one of those fit around the schedule and do my schedule for my major first, since that is what I am here for. Then put the other classes around them. C6,4

I just picked what fit my schedule, because I have a really hectic schedule. C7,4
When I came up here my sophomore year, I was new to this area. I didn’t know one person on campus, so I didn’t know who to talk to. So I basically just went through the book, and whatever fit my schedule, fit my schedule. C13,4

I was [at orientation] late in July, I think. I came by myself, and we were sitting in that big room, and they were saying you need to select so many of these, and so many of that, and kind of develop some kind of a program or a schedule for yourself that met some of the requirements. C18,2

Especially when students get together to discuss a particular course with many different sections offered, they speak of “taking a good professor.” Thus, general education course selection refers back to qualities of a good professor.

Students Select Courses Based on the Professor

As complicated as course selection might become, qualities of a good professor often enter the discussion of general education course selection. Professors determine what students learn by their teaching style.

[You talk to] other students. You always talk around about what classes so you know what you are getting into, and then what teachers to take. You always ask about the teachers. Those are the two things that you always ask about. Not even necessarily the difficulty, the course content, is it hard to follow, is it easier? . . . I don’t care necessarily if it is easy. I just don’t want something where they are pulling questions out of the Trivial Pursuit box, or whatever. I want it so I can learn something, too. If I am going to sit through a class, I might as well learn something. . . . Easy would be that if it’s comprehensible, if it is sequenced through the class. Lectures, I mean sometimes you can’t understand professors for some reason or other. That’s something that I look for. E9,2-3
Sometimes [students say that they] really liked the professor. Sometimes it’s an easy class. Sometimes it’s just—"Oh, he’s impossible," or "She’s impossible. Don’t take her." It’s a lot of different things. C2,8

Well, I just figured my senior year is a time when I really want to concentrate on things, and I just said, "I am going to take [senior seminar] now." I don’t care when I take it. So I just kind of looked through the list of teachers. I tried to think of who I took for [another course]. I wanted to avoid those teachers. I knew who they were. Well, they didn’t teach [senior seminar], so I didn’t have to worry about that. Then I asked some people how they felt about these teachers. I heard about a couple good ones, and I couldn’t get into those. Finally, I knew [one teacher]. She teaches [a different course]. I had a friend who had taken that course, and she said she was a good teacher. The guy who knew [this teacher] didn’t know how the course worked. So I didn’t know how much course work there was, and that wasn’t important to me at the time. I just wanted a good teacher. I had such a bad experience with [that other course], and I wanted a good teacher. C13,4

Students Select Courses Their Friends Liked

Many students assume that their close friends share common interests and values. If their friends liked a general education course, they will likely choose the same one—providing they can arrange their schedule so that they can meet with the same professor.

I’m in a sorority, and there was a girl in the house that I live with that took [human biology] a couple of summers ago, and she said that it was a lot easier doing it that way, because she took [environmental science] during the school year, and she said it was just so long. . . . So that influenced me. E1,2

Students [were the best source of advisement]. Students who had taken certain classes, they were like, "This is a fun class. This is a good class. Avoid this class." Basically after that, when I went to my advisor, it was like, "This is what I want to
take. Can I have your stamp?" I suppose maybe if I had taken the time to sit down and talk to my advisor . . . . There were two advisors for all the undecided majors at the time. They don't have the time for it, really. I think that's a problem. They are just, "There is this, this, and this. What do you want to do with your life? Here is the program, go read it." I think that is just one of the problems here. There are just so many undecided majors here, there is just not enough [good advising] . . . . [S]tudents are more aware of what are teachers really like, whereas your advisor is going to say, "Well, this class is open. Why don't you take it? You may be miserable through it, but . . . ." (laughs) C8,5

I guess [students told me] how much time this course is going to take, or there is a lot of outside work--a lot of papers, this or that. Or there is not so much papers, but there's a lot of sessions. That's what somebody told me about the environmental biology class. Some people said it was easy, because it was all discussion, but the topics were interesting. That compared to a math class was definitely more appealing. I guess eventually everyone wonders what the teacher is like. Are they nice? Are they mean? Are they a hard grader? What is their attendance policy? I guess I ask. I guess it's not the first thing I ask, probably. C12,3-4

A lot of [students] just tell you the good teachers to take. I've had a couple say, "This class is really interesting." I think it has a lot to do with the professor. C16,3

I'd [like] a system where you have mentors in your major you could talk to about things. But then you get back to a possibility of blackballing a professor because the students didn't like him. C6,12

Well, my boyfriend is in it right now, and so is his roommate, and some of my friends are, so I will probably ask them which professors they liked--what they got out of the course as opposed to someone who didn't get as much out of it or whatever. E1,3

I registered over at summer orientation. I got stuck in the last section. I can't remember. I think I just looked through it and thought it would be really interesting. One of the students that was working with us said that she had taken it and that she really
liked it. She said that she didn’t like a whole lot of other science courses, and I thought I kind of fit into that kind of category.

R: First semester, I really didn’t have any idea, because I didn’t know anybody that I could talk to that went up here.

Q: You trust your friends to give you good information . . . more so than a professor/advisor?

R: I haven’t even thought about it.

Q: Just more convenient?

R: Yeah. I haven’t really consulted faculty very much. I mostly consult with other students.

I became convinced that, when it comes to selecting courses for general education, the selection process remains in the domain of a student network. Students think they know best, and they think the faculty probably would not care enough to disagree. I began to wonder whether university faculty might want to provide a rationale for students to use in selecting general education courses.

Students Select Courses Due to the Important Subject Matter

The major criterion for an important general education course apparently represents a connection to the student’s life. During the analysis of these quotations, I began to understand that students recognize the qualities of a good general education curriculum, even though they might never describe one. They like what they get from a good general education because it represents utility, practicality, application, or connections to the student’s life.
I recommended [the course] because I think it is important for them to know the things we had been taught in class, no matter who they are or how much they plan to study for it. They'll learn a lot about what's very important in our world. E2,8

Looking at that class, my primary interest was [that] in my spare time I am a hot-air pilot. There are some things there that I thought would be very beneficial for me. I thought "Bingo, there is a course." ... I centered in on that course to say that this is really going to help me. I really could apply that to something that I was doing in my everyday life. That was a great feeling. C18,4-5

I think it is important for me to have a philosophy course before I leave, just because I have done a lot of thinking anyway. One of the things that would drive me away from philosophy is that I have no idea what kind of grade I am going to get in there. I am a person who likes to get as much as possible. I am not really confident about what kind of grade I can get in there. I know I can write well. C5,4

Clearly this student understands the utility of learning to think more clearly. Venturing into the unknown means risking a grade that would reflect poorly on the practical side of education--the degree.

Students Select Courses Because They Represent a Requirement for Their Degree

It often seems that students enroll in general education courses simply because faculty determined that they must in order to graduate. Sometimes they discover the rationale during the course; other times they never learn why certain courses fill a requirement.

I had no idea. ... Everybody had to take it. After a certain year, everybody had to take it. E12,5
I did not know what [the course] was about at all. I took it because it is required. I knew that all the way. I have learned more in that class than in a lot of my classes. E12,11

Sometimes they select a course because they do not like the alternatives in that category.

I never cared for chemistry or physics. In chemistry, I just had a bad experience with the teacher, I think. But physics was dry, boring, dull--no interest in it whatsoever. I did, however, like biology . . . life sciences. E6,3

I talked to a friend about whether she had heard anything about this class. I can't remember what she said, but basically I just ruled out the chemistry and the physics and all that. This kind of seemed like the leftover one. I wasn't definitely picking a class that was the one for me. It was more just like the worst of all evils. E11,2

I chose [the course] because I took physics in high school. I never took chemistry. I was terrible at biology. And I didn't particularly enjoy physics. . . . I had had some background, so I decided to give it a try. C10,4

Student-Generated Lists in the Dorms Help Students Select Courses

During this investigation I discovered that upperclass students have developed and propagated an ingenious system that probably surpasses a first class counseling center at providing honest and direct advice to students about general education. In many dormitories, usually at a central commons area, students post lists where anyone interested can provide information regarding which courses to enroll in or which professors to take. Many students make the rounds at registration time visiting each floor's
list, and they apparently take the information that they
find into serious consideration.

Actually, . . . on our floor we had a big sheet of paper hanging on the wall with a line down the middle. This read, "Classes and Teachers Not to Take," and "Classes and Teachers That Are Recommended." There was a list of them. I just thought, you know, I was going to avoid the [bad] teachers . . . and there was a couple--my [environmental science] teacher was listed probably about 15 times. There were a couple up there that I thought were good. They were good teachers, and I probably would have recommended them, but . . . it just said, "Don't take this teacher." There was a couple comments. One comment was, "Don't take this teacher. She wrote the book." Of course, that teacher is going to know that whole book. It wouldn't matter to me, because it would make it better. She understands it. That's just kind of funny, because maybe one person will say, "I don't like this teacher," but another will say, "I like this teacher." [Looking at those teachers] was kind of fun. I looked at the list of good teachers, and I thought, "Well, I'll try to keep these in mind." I didn't write them down or anything. I'll just keep them in my mind and look at them when it comes time to take the rest of my gen. ed. I can't remember half of them anyway. C13,4

[Other students become your advisor] in the dorms especially. . . . [W]hen you are registering, you have the professors to take and those not to take. [T]here is a piece of paper that they put down in the lounge. It said, "Professors to take" and "Professors not to take" on one side. You would put, from your experiences, what to take. And if you wanted to write a little account, you could. If you had any questions, people would write their phone number down. The same with courses. It was just out in the lounge, and we used to walk around to all the different lounges and see, to try to get an impression. C4,2-3

We didn't have one on our floor, but I would often go to other floors when I was registering to see if professors who I wanted to take were on the list. C6,12

I talk to people in my hall and say, "OK, have you taken this? Who did you take it with? Was he good,
or should I try somebody else?" We have a big piece of paper that we put in the hall. It says professors, and a description of the class. Then there is one for good teachers and one for bad teachers. People write down so you can go look and say, "Oh, he was really hard. Maybe I don’t want to take him." C7,3-4

I remember the list right next to the [student assistant’s] office. At registration they would lay out, "This is a good professor. This is a bad professor." "Take this class. Don’t take this class." It’s just like they are not even interested in learning. People are like, "Take this person. Don’t take this person." There is this one professor that I have totally avoided, because everyone is like, "[The professor]’s terrible," you know? [Students suggest] that they are too hard of a professor to get a grade from. That you may do all your work, but they want one specific thing out of you, and if you have a different opinion, you are not going to get the grade that you want. I am so afraid that my opinion will be different, that you are going to avoid that. I would anyway. It is a bad attitude to have, I think. It’s terrible, but you still do it. [In your major] the emphasis is on you and what you want to learn. There is more discussion on what is in the course and what you are going to get out of the course. That I like about being a [particular] major. C8,6

I always wonder how hard the different classes are going to be, what type of assignments, and how it is structured. . . . A lot of students in my dorm . . . they have a poster up on the hallway, and it will say "Good Professors, Bad Professors." C15,4

I saw a couple of sheets. Every house in the dorms they put up "Good Profs--Bad Profs," "Good Classes--Bad Classes," and that kind of thing. So you can go around and look and see that this prof has a lot of bad comments so maybe steer clear of that. C18,4

One student even suggested that the university might produce this kind of information about professors and classes right in the course book.

And in some ways I wish that in the book it would have said, "This person teaches it very scientifically, and this one teaches discussion groups," because I don’t
like the class that I am in. I don't like discussion all of the time, and that's what we do in there. The girls across the hall . . . are doing chemical formulas and all that, and that would mean more to me than this discussion group is. So I like to see "science-based" or "something for science majors" or something, because I am bored out of my mind in there.

Scientific Literacy

Because I teach general education science courses and because each of the students in this case study had currently or previously enrolled in general education science, I wondered how students might describe their perceptions of scientific literacy and their perceptions of scientists in general. My curiosity ranged to how students value science relative to their lives and relative to their personal role in society.

Scientists Think and Live Differently Than Do Students

For the most part, students believe that the term "scientist" represents a peculiar individual isolated from society because of a compulsion to complete research projects. Students believe scientists spend their time in the laboratory, wearing a white laboratory coat, using a microscope, and observing chemicals in glassware--the usual public stereotype.

The word for a successful scientist, "nerd," does not necessarily imply a derogatory label; neither does it represent something most general education students would
care to become. Students recognize that successful
scientists commit their life to their work.

Scientists are more interested. Scientists are real
people. . . . Everybody says, "Scientists are nerds"
or something. But I think there is just so much to
know. They really get into their work to help other
people. . . . You have got to find other treatments to
help people. Not one specific drug is going to help
another person. There's always so much more out
there. You can't just research one thing and stop
there. C13,6-7

It seems they are never satisfied with a surface
answer. You always have to probe into it deeper to
satisfy their questions. . . . Normally, a lab coat,
and near a microscope, I guess. . . . The big trays of
glass stuff. C3,4-5

[T]hey are forgetful--like Piaget. . . . I guess the
first thing I think of is a lab. . . . A lab coat.
C4,5

I just went to a symposium where they asked sixth
grade students what they think about when they think
of a scientist. Drawings. Every one of them was
male, with glasses and a pocket protector and that
sort of thing. [They were wearing] lab coats and old,
out of fashion clothes. A lot of them had chalkboards
behind them so they could write out their equations. .
. . They still see the researchers on TV that look
like that sometimes, but they don't realize that a lot
of the research being done now is being done by women
and minorities. C7,8

Q: Do you get a sense of what it is like to be a
scientist?
R: Yes, in a way, basically because you have to
memorize everything--certain things--to know more.
Whereas--I suppose everything is that way. To me,
science is memorization of facts and figures and those
things, whereas in English it just comes naturally.
But in a way I am just memorizing things. . . . There
are terms and concepts that I don't understand, that I
think I should, but I never paid enough attention to
science. I don't think of myself as being as
scientifically literate as I should be. I think I
should be more aware of what's really going on. I
don't take the time to do it. C8,8
The scientific method of, you know, find the facts and test hypotheses, whatever. I think that is really the only good way to get knowledge. There's other things other than knowledge. . . . To me, a scientist is someone who works in a lab, wears a white coat, and does all the little tests and things. So I guess it depends on your connotation of "scientist." C9,6

Students Learn to Think Like a Scientist

I asked students if they learned to think more like a scientist during their general education science courses. Many of them claimed to recognize a difference in the way scientists think, and some students believe that they practice the skills of scientific thinking better than previously.

It is entirely different than a social worker. . . . I'm not quite as vague [as I used to be]. I try to narrow things down more. I think science has kind of helped do that--to find what's behind it. Rather than putting my own interpretations in, I try to get to the answers a little bit more. E10,4

I would think [scientists] are more analytical, more factual, whereas I think in humanities they are more theory, and they may say this or this or this--whereas science is just this. I don't think that necessarily came from a class though. . . . I think I would like it to be more one way. I always thought philosophy would not be for me. I'd like to just take that class and enjoy it, but I don't think I could deal with all the: "It could be this, or it could mean this, or it could be this." I want an answer. I want to know how it is. C16,5

Logical. It's theory. It's testing. Research. I hope [I am thinking more like a scientist]. I would like to think of anthropology as a science--a social science--but a science nonetheless. C17,7

R: I think of someone in this lab somewhere. . . . a white lab coat. I guess that comes from Hollywood. . . . Perhaps they analyze and investigate more than other people. I don't know if that is really true.
Q: Are you beginning to think more like a scientist? Would it be a goal of yours to try to think more like a scientist?
R: Not completely, because I am a musician and I have to maintain creativity. I don’t know if I would say that scientists are not creative. . . . I think they are more involved in trying to figure things out. I’m not sure.

All I can really say is that they seem to want to go on to steps beyond what I am capable of interpreting myself, because they are always looking for the right answers. But they want you to do further and deeper, and I just have a hard time with that. . . . It’s not so much that I am not interested; I can’t grasp it no matter how hard I try. I am taking a nutrition class right now. I never thought about it as science, but in a way it is, because you are studying all the carbs., proteins, fats, and minerals, and you have to know the functions of these and what they do in your body. I enjoy the topic, but I have had a hard time grasping it. It’s funny, though, because most people think math and science go hand in hand. I love math. I took calculus II in [another state]. When I took my physics, it would have come a lot easier to me if I got to sit and work out physics problems than to try to grasp physics concepts. That was the problem I always had. I wanted more problems; I didn’t want the concepts. I prefer the busywork, if you look at it that way. Right now, this semester, I have almost all reading and no busywork, and it is driving me nuts.

Students sometimes worry that scientists fail to imagine the consequences of their scientific work. This apprehension, appropriate for general education science, shows the connection between science and the student’s future decision-making role in society.

Awareness and wisdom is something that the liberal arts schools teach, in my opinion. One of the examples is the scientist that develops the technology that hasn’t thought about the implications. All of a sudden the technical school product has devastating consequences. Nitroglycerine is one example. Nuclear fusion. Maybe we should have had someone in liberal
arts to let us know what was going on with what we were doing. C5,10

I think some [students] have misconceptions of science. Like they see genetic engineering as inherently evil, and something that shouldn't be done. . . . We were talking about genetic testing of babies in the womb, withdrawing the amniotic fluid. I think they saw that as bad also, and kind of selecting--how it could be used possibly to select children. C6,6

Students Remain Unclear About the Meaning of Scientific Literacy

Few students whom I interviewed had ever heard the term "scientific literacy." Some hesitated before they would even guess. I believe this concept eluded students because their instructors in general education science did not choose to specifically identify literacy as a goal of the course. Students undoubtedly increased their scientific literacy as an implied outcome of general education science. I asked them to describe their perception of the term "scientific literacy."

We've been talking about the definition of science. I don't think we have learned that much about. . . . It's been agriculture and conservation. We didn't really learn anything about science, except in high school. E4,3

To understand things and to know what scientific words mean. Is that right? . . . I think I would understand more like in the reports and articles in the newspapers as far as science is concerned, when they were talking about something and I don't understand a lot of things that person would be talking about. E1,5

I'm gaining more understanding about what goes on in the world. I never used to have any idea about some of the things we've talked about so far. E2,5

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
It's deeper understanding of the world around you, that's what [environmental science] is for. E3,4

Possibly those students who understand scientific literacy best did not learn the concept in the general education classroom.

Truth be known, I've never been a big fan of my science courses. Here I am a junior and taking [level] one. But at the same time I feel that I need to know something about the scientific sphere of my life. I think the farther that we go in society the more each average citizen needs to know about science. For example, with [environmental science], knowing about the environment is incredibly crucial. If we don't educate every single person on the planet about what is going on, nothing is going to change. I've just observed that with talking with my parents about what I am reading. I'm telling my father things he doesn't even know about. He's not aware of the behavior that he is doing that affects the world around him. E6,1-2

I tend to look at things through several different lenses. The first thing I always think of is "Where did they get this from?" A very critical sort of view. Then you look at it from several different angles, and try to decide. . . . I would say in this respect it has given me another lens to look through. E6,7

In order to have some well-rounded knowledge, you have to know something about everything. You don't need to know everything about everything. You can't. You have to know a little bit about pretty much everything and I--studying the basics of science gives me a better understanding of what it is to study science and why it is important, not necessarily exactly what it is that everybody studies, but why they study it and why it is important. C9,3

I question how any scientist--who are they? What are their qualifications? What was in the study? How many people or whatever the subject was? What was the sample? C12,6

We got more in depth. And a lot more, we talked more about the scientists. They are starting to be able to
do this now [applications].... I liked that part. Showing that this is out there, and this is going to be used. And like [the professor] said, if we can just walk away from class and be able to read an article sometime and know what it is talking about, I really think that is what general education should be used for. Give us the basic knowledge and understanding.... In some classes we talked about developing some sort of a premise, then saying.... Developing a model--I forget what they are called right now--an experiment to test a hypothesis; to gather your data and do it in a controlled way, you know, isolating variables and those sorts of things. A basic understanding of how to control things. C18,6

The Long-Term Influence of General Education on a Student's Life

General education students often recognized that a course, or perhaps a course sequence, had a significant impact on their life. When students spoke of a positive impact, they were often relating that aspect of the course to their personal view of the purpose of general education, that is, they liked the course because it touched their lives.

General Education Increases Student Awareness

Beyond a Narrow Focus in Their Specialty

Students often became excited as they described examples of how general education increased their awareness. Often these examples came from courses whose overall value they might have initially questioned, but many times they appeared to discover the value of general education when it inspired them to a new perspective toward their life. The phrase "taking things for granted"
describes the evil that general education courses often dispel for students. Many of these quotations relate to environmental issues both because of the student's current enrollment at the time of the interview and because of the nature of the goal of the environmental courses.

I think that I became a lot more aware of the little things that are done in Iowa, like erosion and everything that affects the waterways and kills a lot of the animals and the fish and everything down in the water. And that just made me more aware. When I was driving home the middle of June, I remember looking into the fields, and I could see which ones were no-till fields and everything. It just made me more aware of the different ways that people--different farming methods that you can see. I think I realized that things are a little more precious than we take them for. We take a lot of things for granted. I've stopped doing things that I used to do more of. I think more about what I throw away. There's another girl that I am living with now who is an environmental technology major. We kind of harass everyone about the things we throw away and how we should start recycling programs within our house. El,4

[Senior seminar] is better. It is more worthwhile. It is more day-to-day awareness of what is going on around you. C11,7

It definitely has made me more aware. I'm not a big environmentalist, but I do believe that we need to be good stewards of what we have, and we haven't been in the past. . . . I think that is the main goal of that class--that we know what is going on. There are some people who are really interested just from the class. E9,7

[The course] talks about issues that everyone should be aware of and have some knowledge about. So I think that if you do recognize the problems, you have to try to influence other people to at least think about it, even if they are not going to totally come over to your viewpoint. Some people just don't even think about it at all. C2,11-12
I think [Senior Seminar]--what we are doing this semester [is] looking through the paper, and you see an article, cut it out, and we will discuss it in class. I think that's got me more interested in what the issues are. Before, I am just like, "Oh, yes, save the environment." People just don't know the specifics of what are going on in the environment that could destroy us—that could destroy the earth and what is in the earth. We need to pay more attention to what's going on in the politics—concerning what is important. I like those kinds of presidential candidates. I don't always know what's important. A lot of these issues I don't even know about. Before—I didn't know anything about the EPA or... Now I will look at it more and say, "If he is not going to protect the animals, if he doesn't have any real concerns for the environment, then he is out of here, because that's important. He needs to address those issues. It's something you can't avoid." My roommates say [senior seminar] is interesting. They learn a lot. I think that's great. I love when we get into discussions. . . . I look at issues more. Before I didn't think they were important. I didn't know how it affected me. Now, I know how it affects me, and how it affects other people, because I am getting other peoples' opinions. I realize the issues discussed by the society are important. They are not just something [professors] are telling us. . . . I know what is involved in those issues. I know what people think about them. I can be myself. I feel like the other gen. ed. classes were just huge. It was lecture time—wrote notes down, left, came back, took the test, lectured—same cycle. Didn't get to know the teacher; didn't know another person; didn't know his opinion. He gave us the facts and dismissed. [In senior seminar] we know what she feels about certain issues. We can all express how we feel. She is accepting of everyone's opinion. C13,7-9

I think [senior seminar] is a very good course for students to take. I am glad that it is a required class. There's a lot of people in that class who were never aware of the issues that are out there—pollution and that kind of thing. I always thought I was aware of issues regarding the subject, but there are some things in there that I have learned that I never knew before. One thing I like about [senior seminar] is that it gets you to speak up. They want you to participate more. They want your views on pollution and the environment. I don't see why
[students] have to dread [senior seminar]. I think it is a very enjoyable class. C15,5

As the result of becoming aware of societal problems, students encounter problem-solving skills useful for a lifetime.

I am more aware of the world's problems and ways in which they can be solved or lessened through cooperative work. I am glad that I took [senior seminar]. It broadened my ideas. I think I will retain the most things, as opposed to a math class where I learned to do these problems this way, but right now I couldn't. [Senior seminar] was created to allow students to find a way to start solving the problems, not to solve the problems. I don't know how to say that any better. [We learn to solve problems] through compromise--like two little kids fighting over a toy. They are not going to give up until one of them beats the other one up or takes it from the other one. Two adults, two sensible adults trying to decide who should get what--who should get the toy. And each telling their reasons why they need it. Then coming to a sensible conclusion. Instead of, "This is mine." "This is mine." "Ok, I understand your reasons. These are mine now, and I will respect yours, if you respect mine." C3,9-10

I would imagine that [faculty] realize that this is a class that brings up some important issues that, whether or not you are interested in them, they will affect you--no matter what. You cannot deny that these things are happening, and regardless of your stand, or what you propose as a solution to the problems, I think knowing that the problems exist is important, because long-term--10 or 20 years from now--this stuff is going to be making a difference in our lives and our children's lives. It's stuff that, it's not like history--it just happens, and it's over with. This is ongoing stuff. If it isn't paid attention to, it is going to have some detrimental effects, like it already has. C12,8

I think [senior seminar] is so important, because we live in a world where everything is so business-minded. But we live in a world where--it is our earth. . . . [Senior seminar] has made me so aware. C8-11

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Most general education instructors glow enthusiastically when students read and appreciate the text books chosen for a course. When they take the books home for their parents to read, clearly the texts have touched student lives—a long-term influence.

We are discussing things. And the book we read—How Much Is Enough?—I liked it. I took it home to my dad and said, "Read this. I am coming back in a week and I'll pick it up then." And he did. And he was pretty enlightened by it, and so was I. C10,8

Sometimes awareness comes from listening to another person's point of view or the perspective presented from another culture. General education courses provide unique opportunities for students to think about their own views.

I like how she poses questions to us, and it is not that we are discussing material. She will bring up something that is just [from] articles. It will get bigger and bigger and bigger. She will ask, "Why do you think this is a problem? Why do you think people think this way?" I like that. It makes you think. It is always good to have someone else's point of view or opinion. That's what's nice about having people of all different majors in all of your gen. ed. classes. You get different perspectives. What they can bring to the discussion is something entirely different than what I would bring to a discussion. Sometimes we might be thinking of the same thing. C12,6

I think [general education courses] have given me a background—a different way of looking at things by studying what has been done in the past. I have taken [an introductory economics course], which is pretty interesting, and it gives me an understanding of today's economic structure in America, and what cause and effect of things to happen—an understanding of government and of different cultures, which I think will be beneficial. They will help me learn in the future. C6,6
The term "environmentalist" has the connotation "the tree-hugger," the Green Peace person. There are definitely things we are doing to harm the environment, and we need to stop, and I guess in that sense I really am an environmentalist. I hadn't really thought about it or labeled it that... [Senior seminar] is doing more. It is making me think a little bit. C9,6&8

I have got a broader perspective on the world in general. I have a perspective of the population around me--especially the students around me--as well as Iowa's place in the U.S. and the U.S.'s place in the world. None of them seem to correspond to action through. I guess there are certain things that I have changed about my behavior. I am a lot more concerned and aware of what I am doing now. I get on people for throwing paper away. I try to think about what I am doing before I do it. C5,11

Students use another phrase to describe long-time learning of value, "I got something out of this course." Although these students clearly compare this course to another in which "they didn't get anything out of it," the former phrase represents a high level of compliment. "This course produced a long-term influence because my increased awareness represents useful information that I can relate to my life."

[Senior seminar] would rank pretty high up there with the classes I am most interested in and I have gotten something out of. I could come out of this saying, "This is something I can grasp" and that I will remember this stuff. It's not like algebra, and I am going to use it, and it's over with. I'm probably not going to need to know how to do a certain kind of an equation with what I am doing--with the area that I am going into. But this is a class that, compared to my other gen. ed. classes, I feel like I have gotten something out of that I will always have with me. C12,8-9
Sometimes students become aware of values that make them reexamine the purpose of an education. It teaches them to do the right thing or to do what needs doing in a society.

[Senior seminar] makes you see that making money is not all that's good. That is part of the problem that is contributing to all of the environmental destruction that we are having. I was eating supper one night with this girl. She said, "Who would ever major in sociology?" I said, "You know, some people go to college so they can help other people and feel good about themselves and give something back to society." And she said, "Well, I am just here so I can make money. In accounting," she said, "my main job will be to make money. Especially people my age, that's what they are concerned about--having money." C16,9

**General Education Teaches Students About Citizenship**

Early in this study I became curious as to whether students made a connection between citizenship and general education. In fact, they did. It seems as if their general education science courses focussed their attention on their future role in society.

As a citizen you need to know that things are harmful to the environment. . . . Right now especially, there is a lot of legislation going on about the environment. Different special interest groups are petitioning everywhere to get people to understand why we need to take care of the environment, and I think I understand a little bit more where they are coming from. Now I realize why. E1,9-10

[This course] has me more conscientious about issues, more aware about environmental issues--stuff that I was basically more ignorant to. Actually, I have always looked for a political candidate that has strong environmental views. C15,7
We each have a role to play in how the world ends up. And whether my kids, or my brother’s kids, have a world to live in, or it’s just a big iron world, and we live in a glass bubble. One of the biggest things I’ve learned is just about population. When I am 60 years old, we are going to have twice as many people in this world. And it won’t work—so something has to happen. E2,5

It does teach you to be more critical of your representatives, senators, both at the state and national level, exactly what they are doing. These people are from my parents’ generation and the generation before that. How much do they really know about the environment? That calls into question exactly how educated the people we are sending to represent us actually are. I guess, just in a general sense, it has taught me to be more critical of policies, platforms, et cetera. I would say it emphasizes participation to the extreme. It is an interesting correlation between the environmental movement, in general, and government. They are both very democratic. For example, the recycling push—if only one person recycles, it is not going to do any good. But if everybody starts to, it will actually really help. Your one vote probably won’t disarm nuclear weapons in this country, but if you and your neighbor and others vote, you probably can change things. Actually, we had class on November 8, and she asked us who voted, and she spent about 15 minutes telling us why we should. I think this could be a very empowering-type course, telling us what we can do to take control and help make the world a better place. E6,6-7

Being a political science major, [I think more about] some of the policies the government has toward doing things. We’ve talked about specific areas in California or Arizona that projects have been put forward, and they end up masking the environment mess. So it does make you a little more conscious about what’s going on. Actually [the instructor] talked a lot about [politics]. You have to look about all the different causes the candidates are for, how they believe the environment should be handled. Like Al Gore wrote a book [Earth in the Balance] . . . . It does make you more aware of those issues when you are in the voting booth. E8,4-5
There’s many people out there who don’t know there is a problem. Or, they have an idea, but they are not constantly being bombarded with facts and figures which this class does for you. Just to make you aware there is a problem. . . . The other thing is to offer some solutions. Like right now we are covering renewable sources of energy instead of fossil fuels. I think that it is definitely making all of us aware--to be better citizens. . . . Maybe people will think before they vote for a certain candidate. E11,6

I think that part of being a good citizen is taking responsibility for your actions. I think that, me personally, I try not to be real wasteful with what I do. I think in that respect I am trying to play a part. Overflowing garbage dumps is part of the whole community’s problem. I think being a good citizen is trying to alleviate that problem. That’s just one example. C2,5-6

[Politics] is not something that I would like to get into very much. Every time I get into it, I get very disgusted with it. It is a catch 22. Everybody will see you as a leader when you graduate--especially if you go on to graduate school. Then you stay out of politics and are not a leader. My overall view of politics in general is if we didn’t have to deal with it things would be much better. But it seems that politics is an inevitable part of becoming a larger society. C5,6

Some students distinguish the university from a technical school by its role of fostering citizenship.

Q: Did your gen. ed. courses prepare you for citizenship in any way?
R: Definitely more than the other courses. . . . If I was just here to take those [major] courses, it might as well be a technical school. In fact, a lot of people would be more happy in technical schools. C5,6

General Education Changes Student Behavior

Perhaps the best test of whether a course changes the way students think measures the degree to which they act differently than previous to the course. Many students
claimed that general education courses changed the way they behave.

I think about actions more. Like recycling. I always did it before, but like one can throw away wasn’t a big deal. Now, it’s definitely, "Don’t do it." I feel like I am becoming an activist. E7,6

I’m a lot more aware of pollution and the environment than I was before. And I was before, because I was a farmer. But I have done things as a farmer that I would never do now after I have taken the courses. I did a lot of [contouring], but the way we handle the chemicals and the pesticides and things like that, I would do it a lot differently now. E10,4

Even though I took geology and hated it, it still made me more aware of the earth—what can happen and what has happened. Human origins—their theory on where we came from and how the earth has evolved. Yes, it has [made me a better citizen] because I am more aware of what’s out there. I think [gen. ed. courses] are good to take. I think I will change my behavior, once I get my own family. I will definitely change my habits. C8,7&10

I don’t ever see myself tying myself to a tree to protect the old-growth forest. I don’t think I would be that way. I would certainly write letters and be a little voice—maybe not a big voice. Try to make people more tuned to what’s going on. E14,5

I’m a lot more aware of some of the things we do to the environment for one thing. I know it will make a difference in the decisions I make about what I do—my life and how I treat other people for one thing, and nature, and everything else. E10,8

If we don’t start doing some things, we may not be here very long. We are destroying our planet. How are we going to live without it? Hopefully that course will help us deal with some of the things that are going on. Maybe there is something we can do, just in regular life. It doesn’t matter what profession you are in. E10,9

Actually, I did learn a lot in that class about what people get away with—dumping into the water and the ground. I was kind of scared when I was taking that
class because I thought more about it than I ever had before. . . . I think that with other classes--my [second humanities] course that changed my thoughts on gender. And now I am in [a sociology class dealing with gender] which is basically the same thing over again. That has really changed the way that I interact with society. E15,8

You want to do something--for me personally, you want to see a lot of things done as far as the environment and stuff like that. Sometimes I think it is a kind of a lackadaisical attitude. I don't see how you can really consider living in a place and not worrying about what you are doing. On the other hand, I like to drive and all that other stuff. I think one of the things that I got the most out of in that class was that you can't make people do what you want to just by passing regulations. You have to give them an incentive to do it. I always thought doing something like that would be interesting--being able to make a difference, to do something to change people's thinking for the good. One of the things that has always puzzled me is why they keep burning the trees down in the Amazon. I think I have a better understanding of that now. I realize that we can't just condemn these people for doing what they are doing. Even though it is horrible, they don't have any reason to quit doing what they are doing. E16,6

I was already interested in those type of things beforehand. What I have learned has helped me mold my attitudes and my opinions. Obviously, I will share my opinions with other people. C2,11

I feel like a leader. When I get out into the world [I feel] that I will be a leader in the community, because teachers anymore--I want to teach in a small town, if possible--are looked on as role models in the community. I could see myself in that position. . . . Getting to explain things to people and trying to get them to understand, that is the same thing that is going to happen when I am a teacher. To these non-science people, getting it down to their level is almost like getting it down to the high school level. C7,6-7

My roommate made the comment--I really jumped all over him. Look at everything we are doing. . . . He's like, "I'm not going to be here. I'm going to die in 50 years. It doesn't matter." . . . It made me
I think it is making me realize that there is a lot to be done to help the environment, and there is a lot that individuals can do. . . . I think in [senior seminar] I am realizing, more, that just individuals can do it, whereas [in] [environmental science] we just talked about huge companies that are dumping. . . . In [senior seminar] I am realizing that if I can just cut back, every little thing helps. It really does motivate me. It will be interesting to see if it lasts after the semester, when you are not actively involved in studying the material. C16,4-5

R: [Senior seminar]. . . I think it probably will have [a long-term influence on my life]. It gives me a little bit better idea about going about doing some of the little things that I didn’t know, things that I never even thought about--chemicals that are in a lot of the food I buy. . . . Have a garden. There is one organic store in [town]. I think I am going to be frequenting it a lot more. . . . [Senior seminar] is more applicable, on a daily basis, to life.

Q: Is that the difference between [senior seminar] and [environmental science]?

R: In a big way, yes. I think there is a lot more opportunity for individual exploration [in] [senior seminar]. "How do you feel about things?" "How do you do things?" You know, looking at your own habits as compared to studying [the epics]. . . . [Senior seminar] is very much a looking at a way of life--for you. . . . I would like to look at the history of the environment. I think that could have application for us. I think that if we look at problems of the past, and they can be very much environmental, we can find answers. C17,7-8

I think [senior seminar] is beneficial. It is more blatantly pointed out. . . . We talk about the issues. We see how it is affecting us in Iowa. We see some of the things that I can do on a level, just in our everyday life. The recycling bins are always there. It always amazes me to see how many people actually follow those. And to see how many slips of paper end up in the trash can. It’s always a choice that I can make. And it is always the choice for the recycling
Every time I do that, I always think, "Aha! [Senior seminar]." I really do, and I think about that. Those kinds of things make a difference. Curiously, a student who found one general education course transformational believes the faculty should force others to take a similar sequence. This represents the perspective of an enlightened senior who will likely graduate before passing on to colleagues the value of general education acquired by experience.

I believe that I am more environmentally aware--more willing to try to change my ways and more willing to change the ways of some of the people I know. I believe [senior seminar] is the most important [general education course] I have taken. It's a good class, and I am glad that everyone has to take it to graduate. I wonder sometimes if freshmen shouldn't take something similar to it, and then as a senior take something similar to it again. I wish they would force students to do something like that. After you have gone through your 2 or 3 years, figure out how you have changed--if you have or if you haven't, to see if college really affects you.

Some Students Relate General Education Experiences to Their Vocation

One of the long-term influences imposed on students by general education requires them to examine their own values. These students recognize that some courses ask them how they will live their lives within the context of their own values.

A lot of professors teach what they know, and you are expected to learn that way, but this class has less structure and more thought in it--your thoughts on what could happen, things that society does, and what impact they could have on the environment. More
thought than they would have put in before. I think it fits in pretty well. It helps to tie together some biology and chemistry knowledge. It helps me to get a better understanding of things that I have gone over before. I would say that it helps with the whole thought process of sciences. It helps you understand a little bit more. Then you can look back on things you have learned in the past and say, "I see why this happens"—things like that. I think I am going on for a master's in one of the science fields. I suppose gen. ed. will give me a little broader base of experience—a little bit different way of looking at things. We started out talking today about environmental ethics and science ethics. We started thinking about those topics—what we should and shouldn't do, and why not. C6,1-2

The following student felt the need to act, vocationally, on the knowledge gained in a general education sequence but understood that a lack of professional knowledge necessary to work in the field would restrict any possible contribution.

I would like to find out how you could get a degree in some kind of environmental—I mean, a small—like a minor, or what classes you could take at a university that deal with the environment (but) that wouldn't be a lot of biology, chemistry—all those kind of things. E12,10

Some Students Feel Ambivalent About the Effect of General Education on Their Lives

Unfortunately, some students feel ambivalent about the long-term effect of general education. Although they recognize some value, they are not sure about the way general education is administered or taught.

I would definitely put [senior seminar] in [a college curriculum]. As far as requiring it, I think it is a good idea, but I don't know if I would require it. That might sound hypocritical almost. I guess I have...
a thing about me that I don't like to force things on other people. I don't know that I could require it. I am kind of glad that it is required. I have that idea that you shouldn't make people do what you want them to do necessarily. It's a good thing that it is required. C9,10

I feel like [senior seminar] is a pretty good class. I am interested in the environment and things like that, but I feel like the teachers who are teaching it--they have to teach it, and they are just there. I mean, I have heard all kinds of stories about teachers whining because they have to teach this class and stuff. Everybody has to take it, and everybody is pushed into teaching it because there are so many people to teach. And I feel like they don't put effort into it. They don't explain things. They don't get into detail. They just have discussions every week over certain things. I want more activity, maybe. C13,2

Anyone who has read these student quotes may admit that this neglected program can improve if faculty, individually and collectively, choose to do so. At the close of this chapter now I add one student comment that speaks for many students as to the importance of examining general education through student perceptions. Students spend a lot of their time and energy reflecting on how general education could improve. They welcome a study where they can share what they know with those who care about improving the general education curriculum and its contribution to the education of students. They wish others cared.

Q: Is there anything else you would like to say?
R: I appreciate the opportunity to [give] this kind of feedback. . . . To be quite honest, I would love to take a class from you, because I can see the improvement [you are] striving [for]. I am very glad
to see that--I really, really am. A lot of the time I sit here, and I think, "Why take this? Why take that? And why can't we improve this?" C18,11-12

In Chapter III, I summarize what I have learned from the student interviews reported in this chapter, and I reflect on the meaning of this data for curriculum developers, instructors, and administrators who have an interest in improving a general education curriculum. Most importantly, I assume that faculty can provide a general education for the good of the student. I conclude that serious instructors convey the meaning and the value of general education to students in a clear, convincing, and unified voice, in part because they develop agreement among themselves.
CHAPTER III

A SYNTHESIS OF STUDENT PERCEPTIONS

In this chapter I synthesize a narrative describing student perceptions of general education that emerged from the data presented in Chapter II as augmented by the reflective journal I compiled during the course of this research. I focus my comments on student perceptions that I believe express possible means for improving the general education experience for students.

The Purpose of General Education

When students encounter the list of general education classes provided by the university, they must on first reading recognize that taking a required course from each of the categories would provide them with a breadth of learning. By the time students experience one or more general education courses, they acquire and refine the notion that others believe they should become well-rounded individuals before they graduate. Most of this notion comes in subtle ways from university advertising, parents, professors, course books, other students, and probably in additional ways that students cannot always recall in detail. Few students told me precisely when they learned that the purpose of general education was to develop a well-rounded individual, but the concept seems universally understood among students.
During the course of this research, I became convinced that a shared and expressed understanding of the meaning and purpose of general education was lacking among students, between students and faculty, and by my own extrapolation, among faculty. I began to realize that individual faculty members often apply their own understanding of liberal education and teach what they know of their own discipline to general education students enrolled in their classes, rather than contributing to a unified general education curriculum. This does not necessarily imply deliberate resistance; in fact, it may simply indicate a misunderstanding or a disagreement.

To students, the meaning of becoming well-rounded includes multiple experiences, more so than gaining extensive content knowledge in many areas. For many, breadth equates with a healthy sort of knowledge, unlike that resulting from a narrow major or preparation for a vocation. In fact, breadth comes in addition to the major and may become useful in later life, in times unimaginable or unpredictable to students based on their current inexperience. Well-rounded individuals receive preparation for a life which they cannot anticipate.

Students often described the level of achievement for a successful general education class as awareness or exposure. I understand these terms as organizational for
students. Awareness or exposure may include a brief interaction with past history, new ideas, or new ways of thinking, but for the most part they represent a place from which to start should they ever return to these discovered but primarily unexplored cognitive wonderlands. In this sense, well-rounded individuals prepare for the unanticipated future.

The frustration that students felt toward the goal of becoming well-rounded stemmed from their inability to interconnect the far reaches of their new awareness. They recognized their own inexperience at making connections between ideas, and they often wondered why professors do not help them connect their disciplines with the real world of the student. When students perceived that faculty teach unconnected facts, they assumed they may not become well-rounded. They further assumed that the general education program takes advantage of students when it assures requirements to study with professors who teach what they know rather than teaching what they perceive as appropriate structural bases for future student learning. These students claimed that the university takes advantage of their tuition dollars in the general education curriculum requirements, making students the victims of the curriculum.
Especially those students who come to the university without a particular major in mind used the general education program for the purpose of determining their vocational interests. Within this group, some students imagined that faculty want students to experience learning broadly before they focus. In fact, students reported that some departmental units suggest or even require that students take much of the general education before they enroll in courses related to their major. In other departments, early enrollment in many general education classes leads to a fifth year of undergraduate study before graduation due to scheduling problems with upper-level courses.

Unfortunately, many students' best guess as to why they take general education classes remained that "the university, the state, and adults think you need to." Only a few brochures, professors, and previous courses were cited as sources of information as to the purpose of general education, and a specific statement of purpose remained elusive to all students participating in this study. They developed their own nebulous concept of purpose over the years from various sources.

General education represents up to one-third or more of the time students spend in classes, and for which they pay tuition. I believe that this curriculum program would
benefit from a statement of purpose visible and constantly available to students, parents, faculty, and administrators. That statement might include the meaning of general education in historical and philosophical terms. It should clearly identify why universities value a general education, and why this concept differs from the often confused liberal education. Perhaps most importantly, this statement of purpose should provide guidance to all faculty who design and/or teach general education courses so that they may help students reinterpret the purpose of general education within the context of daily class work.

Liberal Education

At best, the students in this study provided a guess as to the meaning of liberal education and its connection with general education. In fact, the confusion between these two concepts expressed by students led me to question my own understanding and to review the literature of both liberal and general education. Failure to agree on their meanings has led to misunderstandings among faculty, administrators, and curriculum designers. Liberal education and general education have become entwined like a braided rope, and their unraveling for everyone to see may clarify the nebulous purpose and value of receiving a general education.
Students perceived that a liberal education represents a general education. Students contrasted general knowledge, often included in their description of a liberal education, with the specific knowledge they received in their major. General knowledge makes one well-rounded and balanced. It helps students to understand others, including those from different cultures. Several students suggested that liberal arts represented nice things to know as educated members of this culture.

A few students connected their liberal arts degree with the idea of lacking specificity. These students thought that a Bachelor of Science degree probably received more prestige than a Bachelor of Arts degree, due to the difficulty level and specific preparation required.

Students sometimes recognized the conflict faced by universities when they need to prepare students for a job as well as provide a broad education. The major, then, represents what happens in a technical school, whereas all other courses provide a wider view. As with general education, I believe that liberal education deserves to become a prominent concept of clear understanding and agreement to parents, students, and university personnel. Universities may benefit by stating a meaning for liberal education whenever possible. Without a clear statement of the meaning and purpose of a liberal education, all of
these individuals may continue to confuse and muddle the common understanding.

In fact, faculty may define these terms to suit their own self-interests. Teaching general education does not serve the best interests of faculty living the research ethos. Therefore, especially those who reluctantly teach general education may redefine general education to equate with the traditional liberal education. Thus, they may claim the value of teaching their comfortable specialty in depth (Anderson, 1996; Lewis, 1997; Sellers, 1989; Zapotocky, 1996). Although most faculty value a liberal studies program, professional faculty often favor general education subjects supporting their own specialty areas and professional interests (Gross, 1988). As long as departments hire faculty to serve specific discipline-centered roles, general education may fail to thrive.

Kimball (1995) has identified pragmatism with liberal education in such a way that general education helps to reconstruct liberal education. The 1900s view that liberal education prepares gentlemen for graduate school has passed away at least in the mind of contemporary philosophers of education. The most current uses of liberal education in the literature imply nearly the same meaning as general education, including preparation for citizenship and social change. Katz (1995) concluded that "liberal, or general,
education is widely acknowledged to be one of the central tasks of almost all institutions of higher learning" (p. 127).

As a liberal art for nonmajors, science may teach interconnections with other disciplines. This pragmatic, as opposed to academic, approach thus falls under the traditional or historical category of general education, even when called liberal education (Klein, 1995).

Phillips (1995) contended that faculty in public higher education have long used pragmatic approaches to liberal education and that the research and private institutions are newly discovering this pragmatism in liberal education. Public institutions, including comprehensive universities, have a responsibility to the state to provide highly-educated citizens in return for the financial investment of tax dollars. This reinforces the pragmatic side of the liberal arts curriculum.

Freeland (1995) described pragmatic liberal education, emerging from public university missions, as an approach in which faculty can attempt to address the real needs of students and to avoid the traditional vision of liberal learning previously provided when education was restricted to elites.

We need new paradigms of institutional excellence that enable colleges and universities to compete with each other on the basis of quality teaching and learning that they foster rather than the scholarly output of
their faculties. We need definitions of scholarship that acknowledge instructional effectiveness and mastery of disciplinary traditions as much as technical brilliance and productivity in the academic specialty. And we need to supplement Kimball’s [1995] concept of pragmatic liberal education by encouraging faculties of arts and sciences that serve large numbers of modestly or poorly prepared students to offer something more compelling than a diluted version of the offerings available at our most selective universities.

[W]e should recognize that a large percentage of liberal arts graduates . . . will not pursue advanced degrees. . . . At too many of our institutions we are passing students through programs that represent traditional forms of liberal education without their underlying intellectual rigor, while looking the other way at skill levels among our graduates that are grossly inadequate for the challenges they face.

Finally, we have for too long been complacent about majors that are little more than scaled down versions of graduate programs, with all the narrowness that that implies. We should be doing much more to utilize the major as a vehicle for exploring interdisciplinary relationships and thus for helping students develop the habit, so crucial in non-academic problem solving, of thinking across conventional boundaries. (p. 162)

Envisioning liberal education for the twenty-first century, Kimball (1996) acknowledged a conflicted tradition with the heritage unknown to many proponents. He claimed that training in dialectical thinking required of citizenship calls for the re-examination of the structure of liberal education rather than assuming it is stable.

Pedagogically, Kimball (1996) recognized the use of the case method of teaching at the Harvard Business School as similar to John Dewey’s progressive education, that knowledge is dynamic, multiform, and relative; that learning requires the "active participation" of the student; that the instructor must appeal to the students’ interests; that conceptual learning comes
primarily through experience and implementation; that learning is a cooperative and democratic enterprise, and that, in light of the foregoing points, the presentation of problems to students is the chief means of teaching. (pp. 22-23)

If this represents the emerging 1997 view of liberal education, then general education and liberal education have converged on John Dewey's pragmatism.

As used by modern educational philosophers, liberal education connotes an honored title all institutions and all faculty would like to use. Unfortunately, not all faculty understand the multiple meanings of the term liberal education, still viewing it as the relatively elitist notion of preparing good students for graduate studies (Katz, 1995). Wegener (1978) suggested that the association of liberal arts with certain modern universities, particular curricula, and ancient institutions should cause us to question whether to retain the use of the term at all. I explore this issue further in Chapter IV.

**Student Attitudes and Motivation**

**Toward General Education**

Students firmly believed that courses taught in their majors or those taken as electives should represent a challenge for them to learn practical information, easily applicable to their careers or their lives. Students often generated their own internal motivation in these classes as
they maintain choice, through enrollment, to learn what the professor deems important. Conversely, the general education curriculum carries a mandate for enrollment in one course or a choice of a very few courses in each category. For students, the choice can become like eating boiled spinach or boiled cabbage, because someone determined that either can fulfill an essential need in their diet. The bad attitude engendered, and multiplied by some function of the number of students in each section, may lead to an unpleasant experience for both students and the general education instructor.

That students "have to take" general education represents an attitude passed primarily from one class of college students to the next. In general, these words described classes for which students do not relish enrollment. As young adults, they often disliked others choosing valuable courses for them. They felt a bit forced by requirements for graduation. Sometimes they must enroll in classes for which they understand their own lack of aptitude. Commonly, students talked about general education courses as those which prevented them from taking courses they came here to take.

As soon as students understood that they "have to take" general education courses, they began to scheme as to how they will "get them out of the way." This led to
progress toward the degree, and eventually none of these required courses remained as "impediments" to their graduation. Now they could get on with life. One commonly expressed belief implied that "everyone" thought they should get a college degree, so they might as well get it over with, one step at a time. General education represents one step toward graduation.

All students interviewed believed that their general education rated less important than their major. They took general education classes less seriously, and they expected they would entail less work. Students also expected that faculty should realize that general education courses do not rate top priority in their lives. Students believed that general education courses detracted from the time they could spend working with their major courses. And yet, many students remarked that they learned something of value, in spite of the lack of attention they committed to general education.

Students freely admitted that grades motivated them to whatever their level of achievement in general education, often related to their overall grade point average. Some even suggested that the threat of an F grade became the only motivating factor in some courses, and even an F simply meant they needed to retake the course. Employers,
they believed, do not look at a grade for general education courses.

Despite the lack of motivation toward their general education courses, no student I interviewed thought the institution should eliminate or significantly reduce the program. Instead, they directed their criticism toward means to increase student motivation. Suggested changes often reflected learning styles. Many students would prefer to choose their own topics for intensive study within the parameters of a course so that general education can more closely apply to their lives. Once given this control over their learning, higher expectations by the professor became acceptable.

Students complimented those professors who taught strategies which led to more efficient studying and retention. They believed that general education professors should teach their courses differently than courses in a major. Courses should interest students based on their broad applicability rather than on intensive focus on content. A course that highly motivates general education students would certainly rate outstanding among many students, regardless of the content.

Rating General Education Courses

The students I interviewed provided many stories representing the good and bad qualities of a general
education class. Just as with their major and elective courses, students sang the praises of courses that connected to their lives. They preferred that their professors clearly outline relations between course content and practical applications, but the best courses seemed to speak for themselves through the content. For instance, courses that discuss solutions to societal problems represented useful general education to many students. A humanities course received rave reviews when the professor placed an historical event in a setting with which the students could identify—a kegger. History became applicable in the context of a current social setting. Here students anticipate a major component in Miller's (1988) view of general education that learning relates to living in a democratic society.

Solutions to medical problems faced by society proved interesting to several students, but environmental problems which have no apparent solution short of a change in human lifestyle elicited a number of protests from students who believed their professors should provide answers. Good courses apparently do not leave too many questions unanswered. Other students appreciated receiving enough general information about topics so that they could read more at their leisure. Good courses allowed students to
take the expert knowledge of the professor out of the classroom where it may be used to solve their own problems.

Many students believed that instructors in outstanding general education classes entice students to actively think, discuss, and learn. They claimed that professors hold the primary responsibility for developing interest among students and motivating students to explore the subject. Once motivated, students found that learning can occur between students or outside the classroom, such as during the evening news.

In keeping with the perceived secondary role of general education classes when compared with major classes, students believed general education classes should not consume excessive student time or energy. They appreciated courses where the instructor remained open to negotiation about the appropriate amount of work necessary for a specific grade, and they expected the credit hours awarded toward a degree to relate to the work load. The amount of learning, as the result of a general education course, only infrequently received mention.

Apparently, however, most of the positive aspects of a good general education course can become negated by a large class size. Large class size also leads to faculty animosity towards teaching (Kanter et al., 1997). Students generously excused the necessity for large class size, and
the limitations it places on the instructor, but they admitted that boredom, inattentiveness, poor attendance, and cheating often resulted. Interaction and discussion dwindled, and to the delight of some students, all relationships became anonymous and impersonal. Students survived by attending alternate days, sharing notes with their friends. They suffered as little learning as possible, managing to make a minimal grade and to put their general education behind them. Reducing class size represented the assumed cure for many poor general education classes. Even when students noted that some professors maintain exceptional management skills in a large classroom, they believed a smaller class size would provide a better learning environment.

Many students described bad general education classes where college level content seemed scarce. They realized that professors "taught down" to an unacceptable level so that most of the students could pass with minimal effort. Their major complaint expressed the feeling of wasted tuition and time better spent elsewhere. Ironically, the same feelings emerged when students felt instructors taught technical information that seemed irrelevant outside of the specialty.
The Issue of Good and Bad Professors

Whenever I reflect on student perceptions of general education instructors, I remember how students described the lists in the dormitories where a name shows up under both good and bad professors. Students obviously maintain different standards for excellence. For most students, professors define classes, and to “like” a general education class generally means they liked the teaching style of the instructor. Students invested a lot of their time trying to negotiate general education by choosing the right professors. To most students, a good professor understands that general education students do not respond to the same teaching skills as do students motivated by learning in the professor’s area of expertise. Good general education professors went to extremes to keep up the interest and attention of the students. They maintained their enthusiasm and energy throughout the semester, but they avoided becoming preachy. Good professors taught according to the learning styles of their students, and they often helped students overcome previous bad experiences with their discipline.

Professors who skillfully utilized anecdotes and stories received the accolades of general education students because they helped to make the subject relevant at the same time that they held the students’ interest.
Students soon recognized the names of these professors, and their courses became the first to fill during registration, often regardless of the perceived level of difficulty of the course.

I began to understand the perception that "great teachers" developed an understanding of individual students. Although they did not directly transfer this knowledge to understand other individual students, they may have interpreted the characteristics of other students and recognized that others shared some characteristics of the former. Thus, knowledge of students became cumulative to these instructors, primarily through self-reflection. Great teachers trapped students using stories that resonated and developed an intense interest. Once motivated, these students learned content, just as students studying in their majors learned content through the motivation of knowing that learning content represents a necessary part of preparation for their profession.

Students universally accepted that the university hires only "smart" professors. Thus, when describing good professors, students gave little thought to what a professor knows, but they focused on their ability to communicate in a skillful manner to undergraduates. Once identified, a good professor who took general education
seriously personified a class worth taking whenever the
possibility existed.

Students appreciated professors who gave them the
feeling that they cared enough about their students to work
closely with them. They enticed students to participate
without fear of criticism, failure, or loss of dignity.
These professors shared their enthusiasm for learning with
their students who soon felt their own passion growing.

The most commonly cited reason for earning the label
of bad professor stemmed from that professor's apparent
inability, in the student's view, to judge the level at
which students entered a course. Students frequently
encountered these professors in large lecture sections
which, due to scheduling bottlenecks, affected hundreds of
students each semester. Here again, students questioned
the university's commitment when they perceived that the
worst or most inexperienced teaching professors often
taught large sections of general education courses. To
their horror, they then encountered the same professor's
name in future scheduling books, portending another large
class of unsuspecting students.

For many general education students, a bad professor
merely cannot teach in a way that students can learn as a
result. They meant that the professor cannot teach in this
course. They often assumed that the professor would
perform adequately at teaching students about a specialty. They further assumed that the professor would rather not teach this particular course because of the questionable value of the course. Here, in the student's perspective, bad professors did not share the university's commitment to general education and maintained little interest in teaching outside of their specialty. These professors apparently taught apathetically because their university division must provide faculty for general education. Students perceived that faculty may become members in a club whose membership need not include proficiency in teaching the course in which they enroll. They recognized this apathy toward general education among professors, and they understood that apathy results when professors maintain other priorities for which they receive rewards.

Students often perceived that a professor's personal research may prevent good teaching as it competed for time committed to students. They recognized that professors do not necessarily consider students a priority and that this problem went beyond general education to the university reward system.

Faculty Fail to Value General Education

Despite the fact that general education comprises a large portion of the undergraduate curriculum, students perceived that university faculty teach general education...
only as a low priority responsibility. Students believed that, given the choice, many instructors would not teach general education at all. To students, the message became clear when on the first day at college they walked into a large auditorium where their freshman general education course met. At this time, most students felt the need for a close relationship with an instructor. They concluded that they would sink or swim on their own accord and that no one may notice if they should drown.

Students I interviewed passively accepted this phenomenon as the university's lack of commitment to freshmen as a group and to general education in particular. They soon noticed that large classes do not pervade the whole university curriculum, and they actually empathized with those instructors who taught large general education classes. One student described the situation as a sure way to reduce an instructor's commitment to teaching. Many students named instructors whom they say openly expressed contempt for the assignment to teach general education. I believe the values of these instructors might undermine the values of other instructors who conscientiously promote the general education curriculum. I discern as detrimental and perhaps unethical the potential meaning to and compounded impact on students of a casual comment, from anyone
representing the university, that they should "get their
general education courses out of the way."

Students easily understood why professors, committed
to research and scholarship in their own discipline, would
consider the teaching of general education courses as a low
priority infringement on their time. Students concluded
that faculty received pressure from their administrator to
teach unpopular courses, and therefore, they sometimes
failed to commit the energy necessary to make a course
interesting. I noted that students do not exclusively
blame the instructor. They wondered, instead, why the
university forced unwilling faculty to teach, rather than
hiring faculty with an interest in teaching general
education. And after all, why would students value general
education if the faculty apparently did not? Conversely,
if the students do not value general education, for
whatever the reason, what incentive would entice faculty,
committed to research, to invest serious time in their
instruction?

Entangled in the question of whether faculty value
general education, I reflected on the issue of what new
faculty members bring with them to a comprehensive
university. Do their hopes for their career match the
mission of the institution? Does the community of scholars
represented by a university focus on a future of the university at the expense of a future democratic society?

Pierce (1996) identified the importance of building a sense of mission for a public university which identifies general education as an academic priority. Here scholars talk about the integrated experience of students at student-centered universities (Purdy, 1997).

Today the debate turns around the means to reconcile the dream of a common, shared academic culture with the separating tendencies of specialized academic disciplines which in turn are shaped by the research interests of the faculty. Although the traditional model of liberal education from the European culture expressed an aversion to involvement in the larger society and its needs, the new American approach, especially at the comprehensive university, has come to engage the needs of larger society in a pragmatic way similar to the role of an American land grant university (Boyer, 1987; Kimball, 1995; Wong, 1996).

The Problem of Receiving Good Advice

Many possible meanings become communicated to inexperienced students when they receive the advice to take general education courses if they maintain doubts about registration. Some received the clear message that general education represented a certain amount of busywork all students must complete. This message apparently came from
many sources--family, orientation, students, faculty advisors, and administrative assistants, to name a few. That no one seemed willing to suggest a meaningful way to negotiate the general education curriculum became a major source of bewilderment to students. A common interpretation implied that, "at this large institution, advising cannot provide a personalized route by which I can negotiate a complicated curriculum." Students clearly expected more out of an advisor than someone to help them fill their schedule.

Both freshmen and transfer students related the inadequacies of an orientation program that frustrated their attempts to discover direction. Students described a feeling that orientation merely herded them toward a completed registration based on the limited number of courses left unfilled. Students unable to name a major claimed that they received advice to register at random in general education courses in an apparent attempt to discover meaning and purpose for future enrollment. These students revealed a felt need for a personal advisor who could talk about their future as a parent might, suggesting alternate pathways through the curriculum and projecting the destination of each path. These students often used general education courses as a bad substitute for individual reflection with an experienced mentor.
Unfortunately, students seldom reported that the formal advising provided by the university fulfilled their need for sustained guidance. They complained that they found the faculty intimidating, often engaged in more pressing matters, unsympathetic to their needs, discourteous, and in general, not knowledgeable about the general education program. Some students reported that advisors wasted their time and money because they advised them to register for redundant, unnecessary courses, often resulting in a fifth year of enrollment before graduation.

More experienced students generally concluded that faculty advisors maintained little interest in general education, placed meager value on general education, and did not care which classes their advisees took. Students learned that permanent advisors within the students' majors apparently wanted students to chose and complete their general education so that they can get on to important course work.

Even after considerable frustration with their own advisor's perceived lack of commitment, some students continued to believe others could help them make wise choices from the long list of general education courses. They frequently sought help from a few faculty who willingly shared their time in shaping the lives of students. Faculty who made time and showed concern for
students universally won high praise. Students dreamed of full-time advisors, committed in every way to student needs.

A few students confidently chose all of their own courses, checking infrequently with their advisor only out of consideration that the advisor remain a part of the student’s progress. Even though few 18 year olds believe they are capable of reaching this standard, students apparently accept that student self-advisement represents the expectation of many faculty advisors.

The Dilemma of Choosing General Education Courses

Even the most naive, first-semester students soon learned that not all courses with the same name and classification represented an equal step on the ladder of achievement of the general education curriculum. Just as difficulty seemed relative to previous experience, the quest to find an easy course implied a variety of meanings to students. A course may seem easy relative to others taken in a semester, providing the student with a break. Previous experience in the discipline may prepare one student more than others in the class, resulting in a course that seems easy or at least comfortable. Good teaching often made a course seem easier than one in which students perceived little help structuring their learning.
Many students selected their general education program based on what looked interesting. When students met friends with common interests, they often chose courses based on what their friends found interesting, usually based on the professor. Even so, in filling a schedule, general education courses nearly always became the last chosen after selecting the important courses practical for their major.

Some students became so focussed on vocational preparation, which they perceived as the reason for college, that they tried to base decisions about their general education program on whether these courses can contribute in a practical way to their major. Students reported that some of their majors required that they enroll in certain general education courses. In most cases, students believed that the student network represented the most valuable source of information regarding course selection, and they thought most faculty had little interest in their motive for selecting courses.

The Search for Scientific Literacy

As with both general education and liberal education, scientific literacy represented a construct undefined in its usefulness to students. If scientific literacy represents a valuable outcome for a general education science course, perhaps a descriptive definition would
enhance a general education science course list as well as each individual syllabus. Few of the interviewed students recognized the term scientific literacy, although I identified a few components of scientific literacy in their comments. These components may have arisen from sources other than the general education science classroom. Certainly, many students maintained an appreciation for what science has contributed to their lifestyle.

Students viewed research scientists as peculiar individuals who have committed their lives to their work, often at the expense of what they perceived as normal social interaction within society. Although this perception did not preclude student value for science, it demonstrated why students may not value instruction that teaches them how to do what a scientist does or how to think as a scientist thinks—skills valued by liberal arts faculty.

Long-Term Benefits of General Education to Students

Despite their apparent resistance to the general education curriculum, many students claimed that these courses conveyed a significant influence that touched their futures. Most experienced students cited at least one example of how a general education course provided a new awareness which added perspectives from which they could reflect on their own lives. Cultural issues and
environmental issues in particular took them outside of themselves for a more objective look at the way they live. They encountered problem-solving skills applicable far beyond mathematics or physics to genuine problems they would face after graduation, as citizens. Many cited a book read as short-term preparation for an exam, which prepared them in the long term for life.

Especially in small classrooms, students recognized the value of interacting dialectically with others holding unique and different vocational interests and practicing real-life social skills. The ultimate general education course often conveyed useful information that clearly related to their future lives. A few students received inspiration to reexamine the value and purpose of education beyond the knowledge to compete in the job market.
CHAPTER IV

THE ROLE OF THE COMPREHENSIVE UNIVERSITY

Eisner (1991) asked the critical question, "Do universities endorse one outcome, but in practice emphasize quite another?" (p. 73). Apple (1990) asked the ideological question, "Whose knowledge is of most worth?" (p. vii). Boyer (1990) wondered why so many colleges and universities seem to be driven by "external imperatives of prestige" such that "Even institutions that enroll primarily undergraduates--and have few if any resources for research--seek to imitate ranking research centers" (p. 55). Each of these well-known and widely-read authors suggested that the kind of criticism received from students attending general education classes in a comprehensive university represents a legitimate reason to continually reconsider the mission of the institution and the quality of teaching and learning.

My interviews clearly indicated that general education students perceived a serious conflict between the expressed mission of the institution where they attend classes and what they encounter in some classrooms. Simply stated, students believed that their university's mission, especially when compared to other major regional universities, should focus on service to undergraduate students--quality teaching and learning. Without
compromising the confidentiality of this research by recounting the institution's history, I believe students accurately stated the long-term public image of that comprehensive university as well as the major reason for its popularity as measured by increasing enrollment.

Students, rightfully I think, wondered why an institution so publicly committed to quality undergraduate teaching and learning could, in many cases, show such blatant disregard and lack of commitment to that portion of the curriculum required by every student within any major. In this chapter, I explore the many reasons that substantiate inevitable conflicts between the stated mission of a comprehensive university and its curriculum. In Chapter V, I offer a dialogical approach to addressing the perceived problems with a general education program at a comprehensive university.

The Conflict Between Teaching and Research

Although the comprehensive university may boast its value for quality undergraduate teaching, the conflict between teaching and research goals often stands apparent. Tenure and promotion of faculty consistently require research and publication. Consequently, tenure-track professors initially receive a caution against investment of too much time in teaching general education courses at
the expense of their research (Boyer, 1990; McKeachie, 1994; Wong, 1996).

Even those faculty committed to good teaching feel a responsibility to their discipline first, naturally investing preparatory time for classes in which they teach what they learned in graduate school (Boyer, Altbach, & Whitelaw, 1994). Good teaching within the discipline does not extrapolate directly to good teaching in general education. Both faculty and students commonly say, "It's just gen. ed."

Professionalization of the faculty draws them into their narrow discipline through prestige and the rewards of promotion while teaching general education impedes their progress. Disciplinary professionalism defines academic work in prestigious institutions (Weaver, 1991).

Teaching general education, perhaps especially in the natural sciences, may represent an institutional responsibility completed as a service through the departmental system. When compelled by the institution or by their own professional drive to do research resulting in grants and publications, faculty cannot consistently commit energy to a secondary teaching responsibility.

Some professors exhibit unusually good teaching skills as well as a positive attitude in the general education classroom. Students enjoy their classes and acknowledge
that these professors touch their lives. Ironically, the natural result of good teaching in general education, from an administrative perspective, may insure additional teaching assignments, perhaps semester after semester, in general education courses unrelated to the professor's research or expertise. Here the reward for enthusiastic work may detract from career advancement.

Conversely, inadequate teaching, or at best adequate general education teaching by a professor, may result in assignments more suitable for career advancement. For example, rather than teaching general education, professors may receive an assignment to teach courses with students enrolled as part of their major requirements or they may teach laboratory sections of their own upper-level classes to fulfil their teaching requirements.

Because these intrinsically-motivated students can learn in this setting, this arrangement may identify the obvious solution to a department head with a genuine interest in a utilitarian use of faculty teaching talents. Unfortunately, the most committed scholars do not necessarily receive rewards appropriate for their success in the classroom. Both of the above examples illustrate that tough but necessary administrative decisions arise when teaching general education conflicts with career advancement.
Oversight of general education on most campuses is charged to the general education committee, but departments retain oversight of course content and staffing with little interdisciplinary control. Courses, increasingly over time, reflect the interests of the department and individual faculty (Kanter et al., 1997).

Students in this study recognized faculty commitment to research in their discipline but often appeared to forgive them for their inability to prepare for a general education class. They wondered why the university failed to hire faculty with a first-level commitment to the "discipline" of general education instruction—a very perceptive notion, and perhaps a solution, I believe.

Also related to a commitment to the discipline, imagine the professor who becomes burned out, perhaps nearing retirement. The department head may have the choice of assigning that professor to teach within the major or to teach general education. Either way, students will lose; and the department head must often choose general education students as the victims. One student described this imaginary tenured professor as a nasty joke on students, excused by tenure from commitment to serious teaching (Jewel, 1997). Jenks and Riesman (1968) commented that instructors perform poorly in the classroom in part because bad teaching produces no penalty. Boyer (1996)
remained "convinced that liberal learning will be renewed only as faculty members who teach undergraduates and spend time with incoming students are rewarded for such efforts" (p. 146).

Many university members intuitively claim that research activities contribute to good teaching. Formal investigation of the research/teaching relationship does not always substantiate this claim, especially when applied to teaching general education courses. In fact, a recent meta-analysis of 58 studies of the relationship between research and teaching at universities concluded that "the relationship is zero" (Hattie & Marsh, 1996, p. 507). Researchers noted the limitations on time and energy. When university faculty consider professional advancement, they must choose research (Jencks & Riesman, 1968; Linsky & Straus, 1975; Trice, 1992). Barnett (1992) flatly claimed that teaching and fundamental research are inescapably incompatible.

This critique addresses faculty who are pulled from their specialty to teach general education. A Carnegie Foundation survey found that "for 70% of today's professors, teaching represents their primary interest" (Boyer, 1990, p. 43). Unfortunately, many faculty also agreed that pressure to publish reduces the quality of teaching at their institution. Implicitly, the more
classes they teach, the greater the effect of that pressure. A general education teaching assignment pulls faculty far afield of their research. If all of the faculty will not participate in general education, should some of them receive special recognition for doing so? What about departments that do not participate in teaching general education courses? Good teaching in these departments implies an entirely different reward system. Currently, those who passionately teach general education courses and try to compete in a university reward system based on the research ethos and teaching within their discipline do so with some disadvantage to their career.

Few faculty can achieve excellence in research, consistently teach well in an advanced course in their specialty, and motivate and inspire students in a general education course semester after semester. Yet this approximates the expectation for a few faculty in certain disciplines. My concern streams to students as victims of the curriculum, who "have to take courses poorly taught" because faculty maintain little energy and receive little inspiration to do otherwise.

Some of the conflict between teaching and research at comprehensive universities comes to the university through faculty hiring procedures. Faculty trained at research universities and committed to the research ethos found
there often fail to find permanent employment in research institutions. They often join the faculty of comprehensive universities on the basis of their research credentials in their discipline. Naturally, they may try to recreate the research culture they recently experienced. Even though comprehensive universities maintain virtually no doctoral programs and attain only limited research resources, they often hold to the research university's system of evaluation of faculty.

Imagine an assistant professor in the discipline of chemistry or physics recently hired from a research university. The self-image of this new faculty member likely focuses on the concept of a scientist. Other members of the departmental faculty may share a similar self-image. All of these professors exhibit the scientific skills useful in their discipline for preparing future scientists vocationally. Whether they develop the skills to serve the university mission as scholars of teaching general education presents another matter unrelated to their credentials as a scientist. Students interviewed during this research voiced strong opinions on this subject, often critical of the university's commitment to general education.

When research represents the stated mission of the university, the simple solution to the problem provides
graduate teaching assistants, adjunct faculty, and term employees so that the faculty can pursue research and teaching within their discipline. However, this same solution, when offered at the comprehensive university, may appear to compromise the mission of the institution--quality undergraduate instruction--for the benefit of the faculty within the discipline. At a comprehensive university, where undergraduate teaching serves as the focus, institutions retain the unique opportunity to hire scholars of teaching to fulfill their mission.

Boyer (1990) concluded that "the research mission, which was appropriate for some institutions, created a shadow over the entire higher learning enterprise" (p. 12). The emphasis in higher education, he lamented, has moved from the student to the professor and from general education for the student to specialized education--teaching a portion of the expertise of the professor within a narrow discipline.

Teaching general education at a comprehensive university conflicts with a research ethos. When the reward system for the faculty does not match a large portion of the curriculum--general education--students become the victims of the curriculum rather than the recipients of its benefits. The failure to recognize this
conflict leads to the abuse of general education as well as students.

The irony of this situation surfaces when the mission statement for a comprehensive university claims a high regard for teaching. They hire faculty committed to preparing students within their own disciplines, yet some faculty receive assignments to teach general education courses for which they seem unprepared, unmotivated, or at worst, unwilling. For these faculty, teaching general education directly detracts from the time they might invest in what they identify as productive, scholarly endeavors.

The Conflict Between Scholarship and Mission

The obvious example of the contribution of research to teaching general education stems from integrative research conducted with the student in mind. Here scholars examine developments in their own broad discipline which can inspire in students an appreciation for that discipline and its applicability to their own lives. Scholarship, in this example, requires instructors to engage in research benefitting their teaching, and more specifically, their students' learning (Boyer, 1990; Kingman, 1993). For example, the achievement of scientific literacy goals among undergraduates may benefit from the development of an appreciation for science among students, first, and an
understanding of the nature of science, second (Micikas, 1996; Shamos, 1995).

Comprehensive universities retain the unique opportunity to demonstrate that good teaching includes artistry as well as scholarship. They may reward artistry in the classroom just as artists in the art department receive rewards for their contributions in the studio (Eisner, 1991). Using this analogy, students could rightfully expect the same commitment to teaching from their general education professors that they expect from instructors teaching classes in their majors. Teaching and research become synergistic, one contributing to the other.

Boyer (1990) appeared to endorse this view as he reconsidered the scholarship of teaching. Students in this study continually raised questions about the priority assigned to teaching. Boyer voiced the views of the Carnegie Foundation:

[At the undergraduate level, and most especially in general education courses, research work often competes with classroom obligations, both in time and content. (p. 55)]

We urge, then, that every higher learning institution define its own special mission and develop a system of faculty recognition that relates to what the campus is seeking to accomplish, and the four categories of scholarship discussed in this report could serve as a framework for such discussion... To bring teaching and research into better balance, we urge the nation’s ranking universities to extend special status and salary incentives to those professors who devote most of their time to teaching and are particularly effective in the classroom. Such recognition will
signify that the campus regards teaching excellence as a hallmark of professional success. (pp. 57-58)

Boyer (1990) suggested the four following separate yet overlapping functions for scholarship, all of which appear to contribute directly to the teaching of general education: "the scholarship of discovery; the scholarship of integration; the scholarship of application; and the scholarship of teaching" (p. 16). Discovery holds a high regard in research institutions. Scholars who integrate knowledge give meaning to isolated facts produced from a discipline, making connections from other disciplines apparent. This component of scholarship serves the interdisciplinary mission of general education proposed by Miller (1988). Scholars of teaching who help students learn to apply knowledge bridge information with understanding.

The scholarship of teaching both educates and entices future scholars. Although the knowledge base each instructor brings to the classroom is unquestionably important, the real measure of teaching, as my interviews repeatedly confirmed, involves images, metaphors, and analogies that connect the students' learning to the teacher's message. Great teachers stimulate active learning not passive acceptance of the content of a discipline. They encourage learners to think critically and passionately well beyond their university experience.
Thus, the scholarship of teaching requires faculty to transform information and to suit the learning needs of students (Boyer, 1990).

Based on Carnegie surveys, it appears that many faculty at comprehensive universities would like to creatively change their reward system to one based on the scholarship of teaching as demonstrated in the classroom. Realistically, university faculty retain the right to define scholarship in the traditional ways that tend to preclude exemplary teaching in general education simply because the organization does not reward good teaching as productive scholarship.

Placing specific requirements on what represents scholarship defeats Boyer's (1990) scholarship of teaching. Accomplished teachers may become coerced into a role as a fraud. They perform research duties that, first, detract from their passion for exemplary teaching and, second, may produce inferior research, completed primarily to assure their own tenure and promotion. For a scholar committed to exemplary teaching, the choice may become a role as a second-class faculty member, an adjunct instructor, or a term employee of the institution, likely teaching general education courses. Or, that teacher may choose to work at other institutions that reward teaching as scholarship, perhaps a private college or a community college. The
comprehensive university that fails to reward scholarship in the classroom loses an important asset in general education instruction.

I believe that deliberate self-promotion, in order to achieve tenure, demeans and insults devoted teachers who choose to serve students, the historical unit of focus for a comprehensive university. Beyond serving as adequate teachers, devoted general education faculty develop their careers around motivating students. For these professors, passionate thinking and learning by students, and not faculty achievement, represent the outcomes of their scholarship.

Faculty answer the question of whose knowledge is most worth knowing (Apple, 1990) when they determine who will become the next generation of professors, and indirectly, what values will pass to the next generation of students. This answer can either corrupt or support the historical mission of a comprehensive university. Students understand that comprehensive universities either value teaching or they do not. If learning is the goal, then good teaching represents one important model for scholarship which should be rewarded in the full view of students.

Those students in this present study who experienced good teaching said they developed a passion for learning. Eisner (1997) supported the broad conception of research
which scholars demonstrate when they study the world (in this case their classroom) and then create ways to share what they learned about it. Students represent the direct beneficiaries of this research; other scholars benefit secondarily by looking within this research (Smith, 1989).

Why should active research on teaching rank low in the hierarchy at a comprehensive university?

Eisner (1991) recognized connoisseurship of teaching as a form of scholarship as do general education students. According to Eisner, connoisseurs recognize and value even those intangible qualities that count yet cannot be quantified. Universities who claim to care about general education might recognize those instructors gifted with what Eisner described as an "enlightened eye." If artistry in teaching becomes valued and legitimate because it contributes to the enhancement of learning, then artistic instructors must be rewarded for what they contribute in the classroom, and even more so when they publish in research journals. In fact, this view calls for scholars of general education to look not for methods that colleagues should use in effective teaching, but rather for artistic applications which only those skillful enough might investigate and explore. As a painter dabbles with colors, light, and textures, each instructor must feel free to develop artistic style in the general education
classroom. When successful, they have contributed to a noble mission.

For example, this case study uses my own ability to see what counts to "re-present" (Reissman, 1993) the stories of students in a way that will help others understand the utility of student perceptions in creating new strategies for general education. The value of this type of research diminishes when other faculty conclude that I should try to "teach them how to paint a classroom in a correct manner," that is, publish quantitative data on teaching. Faculty must instead each hold their own ideals and work with their own gifts, accumulated through individual lifetimes, creating artistic classrooms.

The Conflict With Hiring Faculty

From Research Universities

Perhaps unfortunately, but perhaps quite inescapably, comprehensive universities tend to hire faculty who recently have immersed themselves in a culture based on research, post doctoral studies, and publication. Without serious reflection, these scholars may see comprehensive universities as transitional, on their way to becoming respected research institutions. They may naturally see their own role primarily as contributing to that transition through grant writing, publication, and eventual notoriety. These serious scholars may rightfully recognize that
teaching general education courses distracts them from their goals. Some may even interview for faculty positions, knowing that their own goals conflict with the stated mission of many comprehensive universities--quality undergraduate teaching--but they also know that a permanent job eventually becomes a necessity.

Rather than the problem with research professors, the problem stems from exclusively hiring professors who value the priority of the scientific research ethos and teaching vocationally within their discipline above the teaching of general education which is distinct from both of these. Future faculty may need unique preparation for teaching (Johnson, 1995).

Some comprehensive universities carefully word their mission statement to indicate they value both teaching and research. Like private colleges and community colleges where faculty often give up their serious focus on research, comprehensive universities in some cases have shifted toward the scholarship of teaching (Boyer, 1990). University scholars in each discipline may want to rethink the effect of exclusively hiring faculty narrowly trained to complete research in their field. The natural result of this practice may lead to professors who value a similar education for their undergraduate students--to learn the content and methods of their discipline so that in graduate
school they can increasingly focus on research. For the research oriented faculty, wandering from this path spreads themselves too thin at the expense of research productivity. General education represents something to get out of the way when traditional research serves as the implied mission.

This cycle prepares no one to teach or to value general education. It destroys science education programs with the assumption that real scholars in science do traditional research. If teaching general education becomes the obligation of researchers, the best interest of these instructors dictates that they teach general education as traditional liberal education, looking to the history of their discipline, to the ivory tower where society does not rule over what they think or teach. This view of liberal education does not equate with general education (Miller, 1988).

Again, instructors, hired for their knowledge and skills within their discipline, may teach what they know rather than exploring ideas and contemplating societal problems without clear and obvious answers (Miller, 1988). Departmental faculty may potentially find a university mission, such as quality undergraduate teaching, at odds with the true ideals of most of its own faculty. In this scenario, faculty members struggle to reach their own
goals, apparently at odds with the stated mission of the university. I do not criticize the faculty but a bureaucracy too complicated to do everything well such that the least of these--general education--suffers.

A significant number of the faculty employed by a comprehensive university may have never experienced a single course in curriculum theory. They may believe that they were hired to teach what they know, that is, the content of their discipline. These faculty find themselves expected to participate in exactly what the ivory tower/ liberal arts tradition avoids--training citizens for membership and participation in society. Here again I appeal to Boyer's (1990) use of the term scholar which includes integration, meaning one who places "specialties in larger context, illuminating data in a revealing way, often educating nonspecialists" as a service to students (p. 18).

General education will suffer in any system that does not recognize and promote teaching general education as scholarship as described by Boyer (1990). If general education represents a major portion of the faculty-chosen curriculum, students will benefit when a similar proportion of instructors value and willingly base their primary reward system on their performance in general education classrooms. These new general education faculty may invest
their careers not looking for new answers to life's questions but looking for new questions that engage students in the complexities of life in a democratic society.

The Conflict Between Vocationalism and General Education

Many large, comprehensive universities promote vocational orientation because of the historical roots of its divisions. Examples include teachers colleges, colleges of business, and individual departments. Clark and Trow (1966) challenged colleges to organize curricula in a manner which fosters both the occupational pursuits of students and their enthusiasm for broader learning.

In some ways, vocationalism is fostered by an increased emphasis on majors. Professors hired within the departmental system encourage students to take their major courses more seriously, assuming the students will choose a related career. The enhanced major, presented as an alternative by Boyer (1987), represents a refinement on the vocational implications of a university major. Whenever faculty, deliberately or otherwise, lead students to believe that the courses they teach are more important than others in the curriculum, they may encourage vocationalism and probably contribute to the decline in value of the integrative knowledge provided by general education.
Advising

Due to the university structure, it may remain difficult to induce departmental faculty to reflect on the university mission component that represents general education. General education instructors may not express interest in curriculum design, and curriculum designers often do not teach general education classes. Universities without a central administrative authority for general education may want to consider the advantages of creating one.

In a favorable setting, academic advising offers a valuable device useful to promote broader and more interesting educational goals for students. Weaver (1991) suggested that advisors, in a context of an early general education course, ask students, "What is an educated person?" and "What is a liberal education, and is it good for you?" (p. 76). The questions foster dialectical thinking in both faculty and students, promoting the value of socially constructed knowledge.

Universities, committed to general education as a major component of the curriculum, may warrant the development of a general education advising center with a director and a staff large enough to provide support for students who cannot find help elsewhere. This center might also provide widely-advertised support for faculty who have
commitment to teaching general education or who may want to refer their advisees to someone with time and expertise. General education advisors could potentially help students choose courses for a variety of positive reasons beyond "getting courses out of the way." Their major focus may include convincing students that the institution values its own curriculum and supports its students in negotiation of this curriculum. General education advisors could help to balance the effect of narrow departmentalism that likely will remain in some divisions of the university. It might also confront the impression that universities teach general education courses to make money processing students. In everything it did, this center would inform students and remind faculty, in a clear voice, the purpose and value of general education.

Weaver (1991) contended that

the syllabus of each general education . . . course should be debated frequently and widely, in order for it to serve as a vehicle for faculty development and for developing institutional identity. . . . [A]rriving at successive approximations of a defensible general education program are clearly important components of faculty responsibilities, even though such responsibilities are not accorded a very high priority by the tenets of disciplinary professionalism. . . . If the courses are not carefully constructed so as to have meaning for students, they will fail from the formidable market pressures that students can exert. (p. 51)

It follows that each general education instructor would develop and maintain a syllabus, perhaps with the
help of the center and other faculty, with a statement describing the role of the course in fulfilling the purpose of general education. Faculty who choose to retain a traditional liberal arts focus for a general education course might receive encouragement from the center to expound upon the differences and connectedness, between general education and liberal arts, for their students. Another important part of focusing the general education curriculum could include deliberate attempts by both students and faculty to determine specific reasons why each course connects to their lives—past, present, and future. Instead of advertising to their clientele that a comprehensive university focuses a large percentage of a student’s time on a general education, that university might more productively claim that the general education curriculum maintains a staff committed to integrative instruction, focusing on the needs of students.

Summary

This research represents my continuing quest for understanding of undergraduate teaching and learning at a comprehensive university. Chapter IV has identified conflicts between student and faculty goals which prevent the development of an exemplary general education curriculum. In Chapter V, I propose a student centered approach to general education. This approach focuses the
energy of select faculty on a scholarly commitment to
general education instruction in line with student
perceptions and with the possibilities offered by the
unique mission of the comprehensive university.
CONTRIBUTIONS FROM STUDENT PERCEPTIONS TOWARD
A MORE IDEAL GENERAL EDUCATION

After examining a number of successful and effective general education programs at various universities, Stickler (1960) reached the following conclusions of interest to this study:

[1]. Responsibility for leadership and coordination of the general education program should be placed within one office.

[2]. Except possibly in small institutions, it is unwise to permit general education courses to be administered by department heads. It is difficult for one person to administer two different kinds of programs and to give equal support to both. Since specialization has traditional status, it is easy to continue to view it with favor and to question another type of program which in many colleges and universities must still be regarded as experimental. General education courses belong to the whole institution, not to departments.

[3]. In an effective program of general education, good teaching must be regarded as critically important. If the teacher of general courses does not accept them with enthusiasm and with belief in their worth, his teaching will likely be spiritless, aimless, and ineffective.

[4]. Students should be given adequate orientation to the general education program as a whole. General education may be new to some students and its purposes may not be understood. Once adequately explained, however, the program will make sense to students; they will almost invariably accept it as a good thing. To accomplish this understanding, appropriate orientation is required.

[5]. Adequate counseling is an absolute requirement in an effective program of general education.

[6]. The general education program should be conceived and developed as an entity—not as a series of disparate courses, isolated odds and ends, or disarticulated in uncoordinated educational activities and experiments. (pp. 58-60)
Supporting the above conclusions, this chapter summarizes ways in which I have been stimulated and encouraged throughout this research to re-examine general education from the student perspective and through the words of others who have previously explored the possibilities. I easily imagine two levels at which concerned curriculum designers might approach a solution. First, instructors might, as individuals, use this study to focus individual efforts in the general education classroom. Students interviewed consistently claimed that many of their general education professors exhibited a genuine concern for student thinking and learning. These faculty will welcome the student perspective as another source of information to understand their own challenge.

More significantly, a second level of approach to the problem of general education stems potentially from the collective work of many individual faculty who might inspire others in an institution as a whole to value its own curriculum. Together they strive for a more ideal general education program with a focus on student needs. As a significant portion of what universities do, general education deserves a valued place of its own in the institution.

Although I do not regard the problem at an institutional level as unsolvable, I do believe that the
traditional university setting, where faculty teach general education courses as an obligation for their employment, provides little hope for improvement. If success in a discipline requires time and a narrow focus, then change at the university level may require a revolution in thinking where the scholarship of integrating knowledge for a new generation (general education) must become a discipline or a subdiscipline speaking with a more unified voice.

For some, proper preparation for teaching a general education class may include reading broadly from review articles and secondary, not primary, literature. These scholars must receive recognition for tying their discipline to the real-life heartstrings of students, motivating them, and then teaching them how to become lifelong learners. Students ask that these faculty remain enthusiastic, energetic, and caring toward many students—not an easy task for those whose primary reward comes from fundamental research.

Reluctantly, perhaps, comprehensive universities might ask whether the research traditions that provided the academic roots for their faculty can match the expectations and rewards that drive the mission of an institution that uniquely cares about all students. Clearly, most university traditions dictate that teaching does not
represent the same level of scholarship as does original research.

If scholars at a comprehensive university could agree that the ability to integrate the knowledge of a discipline with the knowledge a student brings into that class represents an essential and useful form of scholarship, then faculty could begin to break down the barriers currently caused by what appears as a three-level reward system for research, teaching in the discipline, and teaching general education. Teaching of general education becomes the scholarship of discovering the means for effective integration of ever-changing knowledge among students. To facilitate this goal, general education scholars deserve full-time status and tenure for their skillful contribution to a major component of the university mission. General education would prosper (Kanter et al., 1997).

General education scholars would represent the new renaissance individual, with the charge to integrate knowledge, as compared to original research scholars more narrowly trained to work at the cutting edge of a specific discipline. Just as Stephen Jay Gould (1989, 1993) and Carl Sagan (1980) popularized science by availing it to a general audience, these instructors would tell the stories that connect the modern liberal arts with those who benefit
from their general understanding and appreciation in the context of their own lives. The general education instructors' careers must not suffer as a result of this commitment. This one simple step would eliminate problems related to unfavorable teaching assignments, and it would redefine the university's commitment to general education by providing a system of professional advancement based on a commitment to the chosen curriculum. It would also inform students that general education is no longer relegated to the spare room of the curriculum house.

The major political conflict in general education comes from departmental affiliation. Using a director of general education makes that administrator an organizer of another administrator's faculty, a situation likely to fail. The general education program belongs to departments as does the faculty reward system and real authority (Kanter et al., 1997).

I understand that a problem might arise at the departmental level where administrators traditionally route funding for general education classes. Resource allocation benefits the department, as do large classes. In fact, it may not represent the best interest of individual faculty to transcend departmentalism and territorialism to solve the problem of general education (Kanter et al., 1997).
I assume that any general education instructor currently interested in teaching a good course would continue to do so. Imagine what would happen if a department opened a job search with the promise that the primary assessment for a new professor would focus on a commitment to the enhancement of the general education program. That is, students will be served by all forms of that faculty member's tenure requirements—teaching, research, service. First, I would predict hundreds of applicants for the position based on Boyer et al.'s (1994) findings that most experienced faculty think that teaching should represent the major focus of a professor's work.

These applicants would not likely come directly from post-doctoral programs at research institutions. A large general education class, with unmotivated students waiting for inspiration, hardly represents the proper learning situation for an inexperienced instructor.

In evaluation of these applicants, stellar teaching performance in the undergraduate classroom should emerge as a primary criterion for selection. Also, look for applicants whose research commitment stems from a curiosity about how classroom situations can stimulate active learning as opposed to passive reception of content knowledge. General education must teach students to play
an active role in a democracy rather than relying on others to tell them how and what to think.

Also important in my vision, a clear statement of the meaning of general education should appear on the job description, along with the comprehensive university’s consensus as to why general education might become entangled with the traditional notion of liberal education. At the interview, careful inquiry into the candidate’s acceptance of the university mission with regard to this interpretation seems essential. The number of new faculty hired using these criteria should approach the number of faculty now teaching general education at what they perceive as a cost to their career. I believe that the most basic commitment that will revive general education stems from this reward system for faculty who focus on students. Once a comprehensive university identifies general education as a discipline or subdiscipline with its own unique place in the curriculum, those participating faculty become directly motivated to improve its contribution to the student experience.

Focussing the Distinct Purpose of General Education

"Some observers have arrived at the troubling realization that general education programs are conceived not in terms of the students at all; rather, general education seems to be primarily for and about the faculty"
(Kanter et al., 1997, p. 75). Comprehensive universities that focus their curriculum around general education must carefully design a distinct purpose for that program and consistently present that purpose to faculty, students, administrators, parents, regents, and even citizens in the case of state-supported institutions. This dissertation presented several reasons why faculty may perceive authentic general education as conflicting with their best interests. A general education committee must address this problem so that students fail to become trapped in a conflict where faculty serve their own best interests and students become the victims of an unpopular curriculum.

General education represents one component of a liberal education. Faculty must consider differences between general and liberal education and explain these differences to students at every opportunity. I suggest that all general education faculty at a comprehensive university include the university's accepted purpose statement for general education on the course syllabus, and that they return to it occasionally to help students understand why "they have to take these classes."

I believe that faculty, perhaps in the purpose statement, could attempt to convince students that "becoming a well-rounded individual" includes a responsibility to prepare for the time when citizenship in
a democracy will ask for something back from them. That education for membership in this society elicits a debt, repaid by participation, rather than guaranteeing economic success might suggest an interesting discussion with regard to students' vocational interests. Helping students to understand the difference between forms of knowledge such as basic scientific research and cultural knowledge may lead to a well-rounded individual far more sophisticated than one provided "awareness" through "exposure" to the expertise of a professor in the liberal arts.

**Student Motivation**

Students in these interviews claimed that faculty motivated them in many ways. Most frequently they reported that when faculty seemed motivated, students caught the inspiration like a contagious disease. Students recognized that faculty motivated students in their own discipline due to their own commitment to and excitement about the discipline. When students felt that faculty showed little excitement for the class they felt let down, as if the instructor failed to commit to the scholarship of teaching.

Students were motivated by new learning strategies suggested by their professors. For students, a course that motivated them to study and to learn received the highest rating. Thus, in Chapter IV I suggested essentially the same thing for instructors. Allow assessment of
scholarship in the classroom as the measure of success for faculty engaged in the discipline of general education, and students will become motivated by the enthusiasm generated.

The only loss appears to be the elitist notion that some forms of scholarship rate a higher value in higher education than do others. This issue may disappear when these scholars maintain a common priority of promoting the purpose of general education.

Good and Bad Professors

Visit the dorms at registration time and you will understand that students evaluate their courses not by the research achievements of their instructors, but by "whether or not they can teach." Students, without exception, admitted that all professors hired by this university appeared smart. But good professors seem broad in their thinking, extremely fluent in their communication skills, and able to make connections between the world in which the student lives and the intellectual content of the course.

Almost universally, students choose general education classes because of the professor. When they discover a good professor, they "take that professor again," often regardless of the title of the course. These professors apparently go to extremes to hold the interest and attention of the students. They motivate. They use anecdotes, metaphors, and stories, and the truly great
teachers brought their students into the stories. Although students studying courses in their majors could motivate themselves, students often failed to draw on this intrinsic motivation in the general education classroom. Here, motivation remains in the hands of a master teacher.

I learned that the successful general education instructor must practice an artistry useful, but not essential, in the typical departmental classroom. Many of the faculty attracted to comprehensive universities bring these skills with them. That some faculty fail to value and culture these skills, for whatever reason, indicates to me that hiring faculty, prepared exclusively by research experience that led to a PhD, may fail to select competent leaders for a general education program. Additional experience and assessment of teaching in the discipline before entering the general education classroom may be essential so that adequate skills may develop.

Faculty Who Fail to Value General Education

Many students participating in this research perceived that some general education faculty, and perhaps an even larger portion of the university faculty as a whole, maintain as little interest in general education as some students demonstrate. This problem is exacerbated when the size of the university produces conflicting missions between the university and its subdivisions. Faculty in
some disciplines who traditionally provide instruction in
general education openly describe general education to
students in terms that clearly categorize general education
as a second-level teaching responsibility which
additionally ranks below research and departmental
responsibilities.

As long as students perceive general education as a
low-level chore completed by faculty to fulfill a
department's obligation to an institutional mission, they
will recognize that faculty fail to value their curriculum.
A very small number of faculty could convey this
unfortunate impression to students. I believe that only by
selecting faculty who genuinely care about student learning
in general education can a comprehensive university change
this perception. The university who convinces all of its
constituents, especially its own faculty, that general
education represents a thriving, vital part of its
curriculum will demonstrate a curriculum coup of
substantial proportions.

**Advising**

I believe that the source of the problem students
perceive with advising in general education comes primarily
from the fact that nobody at the university claims
responsibility for general education. When students come
to orientation sessions, they often meet with students with
little experience, or faculty with little interest, who fail to answer their questions and address their concerns. Unfortunately, the advisor's view of general education includes a hit or miss curriculum. They receive advice to take whatever fits their schedule.

In all likelihood, students will receive no statement on the purpose of general education or the role it will play in their education. Perhaps due to the anxiety of their first registration, they cannot imagine how they will negotiate this series of courses required for graduation. Some departments advise students to take all of their general education classes as soon as possible. Others recommend that general education courses sprinkled in with the serious courses in their major will help to make a semester survivable.

Instructors hired with a specific general education focus would provide a place for general education in the curriculum and the home away from home requested by many of the students in my interviews. The new commitment to students could provide the same mentoring often provided in the major by faculty committed to serving "their" students in their discipline. Surely, a general education advising center could promote the purpose and value of general education to students, faculty, and the whole community,
helping the university to speak more directly with one voice.

Class Size

If class size remains an unavoidable problem, progressive universities can make a major commitment to outstanding lecturers who will focus their scholarship on innovative presentations that stimulate thinking and learning. Students in this study named several outstanding lecturers who changed their lives by coaching them in new strategies and inspiring their personal search for learning. These faculty belong in large general education lecture halls.

The Long-Term Benefits of General Education

Despite all of the problems that students cited with regard to their own general education experience most students could recall professors who touched their lives in ways they would never forget. Some opened doors to new experiences. Others performed great lectures which spun tales imparting new meaning to classical literature or the environment. A few could pass time magically, holding their students in a sort of intellectual embrace. These exemplary teachers invest much of their time looking for the connections to which students can relate, and they focus on a means to bring the scholarship of their discipline to the scholarship of their teaching.
I can envision a unique comprehensive university where students frequently become spellbound by their general education professors. This faculty, driven by the scholarship of teaching undergraduate students the meaning and purpose of a connected world and the responsibilities of citizenship in a democratic society, would rejoice in the academic freedom of classical teachers, long exemplified by Socrates in the Western tradition. The university would reward them as they achieve the highest ideals of their discipline—passionate teaching and learning, thus filling the empty room of general education.
REFERENCES


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
APPENDIX A

GENERAL EDUCATION REQUIREMENTS

AT A COMPREHENSIVE UNIVERSITY
GENERAL EDUCATION REQUIREMENTS

AT A COMPREHENSIVE UNIVERSITY

Social Sciences 9 hours
   Psychology
   Geography
   Sociology
   Economics
   Government
   Politics
   Geography

Applied Mathematics 3 hours

Fine Arts 3 hours
   Dance
   Theater
   Music
   Visuals

Writing 3 hours

Literature, Religion and Philosophy 3 hours

Non-Western Cultures 3 hours

Health 3 hours

Speech 3 hours

Natural Science/Technology 7 hours + a 2-hr lab
   Life Science
   Physical Science
   Chemistry
   Geology
   Physics
   Astronomy
   Meteorology
   Physical Geography

Humanities 8 hours

47 hours total
APPENDIX B

INTERVIEW PROTOCOL

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
INTERVIEW PROTOCOL

General Education Science: The College Student Perspective

1. Describe your own understanding of the purpose of the general education program at this university. How did you formulate this understanding? What role do you think general education (will) play(s) in your education?

2. How do the general education science courses relate to your reason for attending this university? (Related to major?) (Career goals?)

3. Describe the process that led to your first enrollment in a general education science course. (How did you choose?) (Other gen. ed.?)

4. From whom did you receive information or advice about how to choose a science course (advisor, students, faculty, parents)? What was the nature of the advice received?

5. If you have completed general education classes, how did you choose which one to take next?

6. What were your expectations for learning in the science course(s)? Were your expectations met, or were they changed during the course(s)?

7. Did your science course(s) help to prepare you as a citizen in a democracy? How?

8. Did you learn anything about how a scientist thinks?

9. Tell me about the instructor(s) in your science classes. Does s/he have high expectations? What might you tell them? (to help improve their teaching?)

10. Describe the attitude of other students you know toward science classes. (What do they say to you?) Are they serious? Value?
11. Describe the difficulty level of your science class(es) (compared to other classes). What is it like ...?


12. What long-term influence will the general education science courses that you enrolled in have on your life? (Change behavior?)

13. When you graduate, what degree will you earn? What does Liberal Arts mean to you?

For Senior Seminar students:

1. Why do you think the faculty decided that all students would take Senior Seminar?