

# **University of North Dakota Bush Longitudinal Study: What Students Tell Us About Cross-Disciplinary General Education Goals and Learning**

## **Data Analysis**

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The General Education Study Team

Co-Leaders: Anne Kelsch (History) and Sara Fritzell Hanhan (Assoc. Provost Emerita)

Jeanne Anderegg (Honors)  
Tom Ballintine (Chemistry)  
Deb Byram (Occupational Therapy)  
Kim Fink (Art)  
Wendy Hume (Criminal Justice)  
Doug Munki (Geography)  
Bob Tangsrud (Marketing)  
Cheryl Terrance (Psychology)  
Amy Wenzel (Psychology)

With additional assistance from:

Tami Carmichael (Integrated Studies)  
Joan Hawthorne (Writing Across the Curriculum)  
Libby Rankin (Office of Instructional Development)

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## Introduction

In 2000, a team of ten faculty members embarked on a longitudinal study of student perceptions of the the cross-disciplinary goals of the UND General Education Program. The study is part of two larger projects, one described in the *University Assessment Plan* and the other in the *Bush Teaching Scholars Program and the UND Assessment Teams*, a faculty development initiative funded by the Bush Foundation. Although there are a number of possible techniques for assessing student learning, this project is designed specifically to elicit, over time, student perspectives on how and what they learn. (See descriptions of similar assessment projects at Harvard University, Louisiana State University, and University of Washington.).\* The study is currently in its fifth year, and although there are additional data yet to be gathered, the following report is an attempt to interpret the first four years of work by the Study Team so that those considering changes in the General Education Program can use the findings of the study to date.

## Study Methodology

### *Purposes of the Study*

The primary purpose of the study is to build an understanding of the degree to which, and the ways in which, UND students believe they reach the *cross-disciplinary goals* of the General Education Program. In this respect, the study is an indirect assessment of student learning, which can complement any direct assessments undertaken by the University.

The cross-disciplinary goals are those described on pages 25-27 in the 2001-2003 *Academic Catalog*. It should be noted that these goals have been revised somewhat in the current catalog. (See Appendix A). However, because the changes are relatively minor, and because this study began in 2000, it is based on the cross-disciplinary goals listed in the catalog at that time. Although the catalog also describes certain *disciplinary* goals of the General Education Program, those goals are not addressed in this study.

It is hoped that what is learned in this study can be used both to improve UND's General Education Program and to enhance student learning both within the program and beyond. (See Michael Q. Patton's *Utilization-Focused Evaluation: The New Century Text*. 3<sup>rd</sup> ed., 1997.)

### *Study Co-ordination/Administration*

The study originated in the office of then Associate Provost, Sara Hanhan, who had initial responsibility for managing the study. In addition, Libby Rankin, the Director of Instructional Development, participated in all Study Team meetings, as her office was responsible for coordinating the faculty development grant that supported the study. As part of the grant, an internal evaluator of the Bush projects, Joan Hawthorne, was selected and was also present at all meetings. All three individuals helped facilitate the meetings at which Study Team members identified emerging themes of the study. A Faculty Coordinator, Anne Kelsch, was chosen and participated in the selection of the other nine

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\* These and other materials referenced are available through the Office of Instructional Development.

members of the team. After the third year of the study, Associate Provost Hanhan retired from the University. Hanhan and Kelsch are now jointly responsible for leadership of the project.

### *Nature of the Study*

During development of the University Assessment Plan, a conscious decision was made to attempt to assess learning in the General Education Program using qualitative methods rather than quantitative or standardized measures. This decision was based partly on cost, but more strongly on the perceived inadequacy of available standardized or narrowly quantitative instruments to document learning, especially given the complex nature of our cross-disciplinary General Education goals. The Plan calls for, among other things, a longitudinal study of students' perceptions of their learning in the General Education Program. This particular indirect assessment project is based on the understandings that learning occurs within the person; that learners themselves are one of the best sources of knowledge about the circumstances of their own learning; and that there are multiple occasions that influence student learning, not just those that occur in classrooms. (See, for instance, the Harvard Assessment Seminars Papers led by Richard Light.) The resulting data are the reports from 513 interviews conducted during the course of the first four years of the project.

The qualitative data gathered during the study are the narrative records of faculty-student interviews. Students also collected portfolios of their work to bring to the interviews, but only to serve as talking points. The study is designed to be qualitative in nature and to some degree emergent in methodological detail. That is, certain specifics of methodology are developed by the team as the study progresses (interview scripts for each year are developed prior to that year, etc.) This approach has IRB approval, and where changes in protocol are warranted, IRB approval for those changes is sought (e.g., approval was sought for changes in recruitment methods and in faculty and student stipends).

### *Timeline*

Given the rationale stated above, the study was planned to last for the course of the students' undergraduate education at UND. It was anticipated that most of the students would complete their education in four or five years, but if it took longer, we would attempt to follow them until they graduated. Each team member individually interviews his or her assigned students once per semester for as long as they are at UND, however, sometimes students have been interviewed once early and once late in the spring semester. The number of interviews for each student depends on the length of time that student is an undergraduate at UND. The study is currently in its fifth year (2004-2005).

### *Study Team Members*

An informational luncheon was held for faculty interested in becoming study team members; this was followed by a general call for applicants. From approximately 50 applicants, the team leadership chose a team of ten, and five alternates, with attention to balance for gender, seniority, and discipline; experience with interview methods; and interest in General Education. One of the original ten team members left during the first

year and was replaced by one of the alternates. Another team member left at the end of the fourth year. Her interviewees were redistributed among the other team members.

The team received an initial two-day orientation to the study, General Education at UND, interviewing techniques, confidentiality procedures, record-keeping, use of portfolios and resource and referral procedures. In addition, the team meets three times yearly, twice to discuss process issues and make necessary adjustments, etc. and once for an extended time at the end of the year to interpret results and plan for the next year. Study Team members receive annual stipends for their work.

### *Student Participants*

In 2000, two hundred students were identified randomly from first semester students to use as a pool from which we hoped to draw 120 willing participants. The students were called by the study leader and invited to come for an orientation. There were difficulties getting students to the initial orientation and/or interview, however, and only 45 participants joined the study the first year. A second cohort of first semester students was added during the fall of 2001 to produce a total of 120 students. Those in the 2001 cohort were recruited by Student Ambassadors from another random list of 200 first semester students and/or were recruited from Introduction to University Life classes (following the recommendation of external evaluators). This cohort of students received their orientation to the study during their first interview. Starting in the second year of the study, students received a stipend of fifty dollars for completing the year's interviews. Although we hoped to have 100 students continue the study, we currently have 55, due either to students leaving UND, choosing to leave the study, or graduating. (See Appendix B for student participant demographic data and Appendix D for comparative data.)

### *Interviews*

At the heart of the study are the interviews. Each team member was originally assigned twelve students to interview twice a year for the duration of the study. Due to uneven attrition of student participants, however, the number now varies for each team member. Due to changes in team members as well as an extended illness of one team member, some students have been interviewed by more than one faculty member. For the most part, however, students have been interviewed by the same faculty member for as long as they have been in the study.

At the end of each year the team develops the interview questions for the next year. The interviews are semi-structured, within usable scripts and the context of the study's purpose to keep the focus on student learning as it relates to General Education goals. (See Appendix C.) However, they are flexible enough to allow students to express their perspectives on their learning. Not all questions on the interview script were asked by every interviewer; interview questions were sometimes asked in different order; and probing for further answers varied depending on the interview situation. Faculty try to strike a balance between keeping some broadly conceived boundaries around the conversation while they avoid leading students' responses. An assumption embedded in this study is that not all general education occurs in classes; interviewers are thus open to

hearing about other places and other things students are learning, even if they aren't connected to General Education goals or classes.\*

The interviews are developmental; that is, questions are based, at least in part, on the student responses to the previous year's questions in order to see chronological changes in students' thinking. Each team member tries to understand each student's individual thinking about his or her learning, just as the entire team tries collectively to track commonalities in change and continuity of the group over time. A final set of exit questions is added to the last interview for each student. Due to the small numbers of students who have completed the exit interview at this time, an analysis of that interview will be included following reports.

The interviews are tape recorded, but not transcribed. Interviewers may keep notes, as appropriate, during the interview, but fill in their notes immediately after the interviews by listening to the tapes while writing interview reports. Once a report has been written, tapes are erased.

### *Portfolios*

Students are asked to keep portfolios of their class work and to otherwise document activities that seem relevant to their learning around General Education goals. The portfolios are intended to serve as one focus for the interviews and as a potential source of evidence of the growth towards UND's General Education goals. To date, the portfolios have not been used extensively as evidence of student learning, but they have served well as talking points about each student's learning. There has been at least one question in each interview focusing on the portfolios.

### *Strengths of the Study*

The strengths of this study, both in terms of faculty development and in terms of what the team is coming to know about student learning, are obvious to the Study Team and those administrators who have been meeting regularly with them. Because each student has developed a relationship with the interviewer, students have been willing to talk about their learning in ways that faculty often don't have the opportunity to hear. Faculty have gained real insights into these students' undergraduate experiences and, as a result, have gathered a good deal of *nuanced insight into student learning in general and to the successes and shortcomings of the General Education Program* at UND. For example, students' perceptions of their encounters with diversity gave us much more insight into possible educational responses than did data from standardized instruments such as the National Survey of Student Engagement.

The interview data are rich with potential understandings of *an inside look at students' experiences*. They are qualitatively different from data provided by standardized and normed instruments. They provide data that will enable further *examination of a number of emerging issues in greater detail*.

Although direct assessment methods are clearly necessary to get a more complete picture of student learning as it relates to General Education goals, this particular form of indirect assessment offers insights such as an understanding of the *developmental experiences of student learning* during their undergraduate years. It allows us to draw conclusions that are sensitive to student values, purposes and motivations.

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\* See Richard Light's *Getting the Most of College: Students Speak Their Minds*, 2001.

The longitudinal nature of the study minimizes the potential for data being skewed based on a conversation that only happens once and may depend on a student's mood, etc. In addition, because each team member, for the most part, interviewed the same student over the course of their study at UND, they were able to glimpse a "vertical" and personal sense of the progression of each student's learning through time. On the other hand, the opportunity for the team to review their work together after each year's interviews enabled a collective view of each year's learning for the group collectively and "horizontally."

A study of this nature also affords a closer and deeper look at a *particular* experience in detail, which in turn may enable discernment of meaning in other students' related experiences that would otherwise be invisible. For instance, when one student said she was surprised to find religions others than Lutherans and Catholics on campus, we began to look more closely at religion as a possible lens on students' understandings of diversity.

#### *Limitations of the Study*

Potential limitations of the study have also been apparent to the Team, some from the beginning of the study, others only as the study moved forward. And sometimes the greatest strengths of such a study can raise corresponding vulnerabilities.

Development of faculty-student relationships around a discussion of each student's learning, for instance, enables students to be more reflective about their own educational choices and may make the student responses less representative of all students not in the study. Because students had had little exposure to the language of the General Education Program prior to the study, they were introduced to the ideas of general education as expressed in the University's language, an experience not typically encountered by other students. Students clearly indicate that participating in the study has had a significant impact on them. In other words, the study may have provided an educational privilege not readily available to other students, and as such, may have itself added to their education. The relatively small number of student participants was purposeful and appropriate for a qualitative study aimed at gaining insights into the thinking of students about their learning. Therefore, as noted earlier, the strength of this study lies in the ability of the data to indicate important, nuanced insights, not in the degree to which individual responses become representative of the larger student population.

Although the original group of student participants was drawn from a random sample, many factors led to the group of student interviewees being less random than planned. Many students who were contacted and expressed interest in participating did not show up for orientation or for their first interview. This may mean that the group that did participate was more motivated in some way than others who did not show. In response to the difficulty in getting a full contingent (120) of students during the first year of the study, on the advice of the external evaluator, an even less random group was recruited for the second cohort of students. Many of these students were, for instance, recruited from the Introduction to University Life course. This means that those who chose to take this course were heavily represented in the student participant group.

There are also questions about the relative academic success of students who started but didn't complete the study and those who continued in the study. Cause and effect is not clear; but it may be that less successful students dropped out of the study. It

may also be the case that staying in the study enabled students' academic success. (See Appendix D for some comparative data.)

Although by design, interviewers were encouraged to be flexible with the interview scripts in order to follow student thinking, the style of each interviewer is obvious in the interview reports. Some, for instance, are more thorough than others in their reports. Some include more student language than others. Some deviate from the interview script while others follow it closely. It is important to acknowledge that what is reported inevitably is colored by the interviewer/observer, but more consistency in the kind of detail reported by every interviewer would have been helpful. This variation may result in unevenness of value given to various findings. Other inconsistencies, which may have colored student responses, although unavoidable, are also important to note. For instance, in some cases a student was interviewed by a second substitute team member, or at a later point in the academic year and an occasional interview was conducted by e-mail when a student was out of the country.

Finally, because the data are heavily qualitative, it is often difficult to describe an event or an experience in a way that is meaningful beyond the experience of that single student. At the same time, Study Team members are aware that generalizing may result in students' voices being lost. Conveying the knowledge of the Study Team to others is difficult and of concern to them.

#### *Interpretation of the Data*

At the end of each year, the faculty study team meets to share its findings and come to some tentative conclusions about what it is learning. The team works to identify emerging themes and answers to the questions shaping the study: 1) What are our students' perspectives on what they are learning and how they are learning as it relates to our General Education goals? and 2) How can what is being learned be used to improve the General Education Program? They have done this by re-reading their own interviews, noting continuing and new themes in what they are finding. When the team comes together, each member reads a few interviews prepared by other team members as a way of getting a feel for the range of findings. They then, sometimes in smaller groups and sometimes with the full team, identify themes that all can agree on. They purposefully look, as well, for counterpoints to the themes, looking for specific examples that go against a trend they are seeing. Language is carefully crafted, usually in paragraph form, around each theme in order to hold the fullest understanding of the group.

In the spring of 2004, Tami Carmichael, originally an alternate for the Study Team, read all of the interview reports to date, and with Sara Hanhan, the initial coordinator of the project, wrote a report for the Study Team's review. Carmichael read groups of interviews chronologically. That is, she first read all of the first interviews, regardless of cohort group, then read all the second interviews, etc. As she did this, she looked for recurring themes about the students' perspectives on their learning. Hanhan read all interviews for *each* student in chronological order, starting with the students in the second cohort and then moving to the first cohort. (She did this because the Study Team had always started their group reading with cohort one.) Hanhan focused on each interdisciplinary GE goal and organized her findings accordingly. The faculty team then reviewed the first draft of the report and made some recommendations for changes.

Hanhan and Anne Kelsch, based on the recommendations of the team, prepared the final copy.

### *Reporting and Using the Results*

In order to promote broader campus awareness of the study, the Study Team has held annual presentations of emerging results for faculty interested in General Education. The purpose of such sessions has been to share findings from the study in progress and to promote critical and creative thinking about how faculty can help enhance the General Education experience. This report, which has been based on the collective results of the first four years of interviews, will be used more extensively to report to University administrators, committees, and interested faculty. Because interviews continue to be conducted, it is expected that there will be at least one addendum to this report.

### **How to Read the Study**

In the report that follows, results of the study are reported in two different ways: The “Summary of Interviews” (pp. 10-30) summarizes what students reported in interviews with team members as they progressed, semester-by-semester, through their college careers. Those interested in seeing what students have to say at certain points in their college experience, or in seeing how student responses change over the course of their college careers, may be especially interested in this section of the report.

The section entitled “Findings Related to Specific Cross-Disciplinary General Education Goals” (pp. 31-37), summarizes the same interview data as it relates to particular cross-disciplinary General Education goals. Readers interested in seeing what students have to say about one or more of those goals may want to focus especially on this section.

In addition, the report contains two additional brief sets of findings entitled “What Else Do Students Tell Us About the General Education Program?” (pp. 38-39) and “What Else Do Students Tell Us About Their Learning?” (pp. 40-41). Although these findings do not relate to the primary purpose of the study—students’ perspectives on their learning related to the stated *cross-disciplinary goals* of General Education—they are of interest because of what they tell us about student learning in general.

Finally, the report ends with a list of ten recommendations the Study Team makes based on their experience and the findings of the study. Although these recommendations are not comprehensive, it is hoped that they will be taken into account when considering future changes in UND’s General Education Program.

## Summary of Interviews

### *The First Year of University*

#### *Fall Semester (Interview 1 - 108 interviews completed)*

In this initial interview, students shared general background information with interviewers, as well as overall first impressions of the General Education requirements and classes they were taking.

The majority of students involved in this interview seemed to come from smaller, rural, heavily western European or Scandinavian communities. Though a few students come from cities like Minneapolis where there is more racial/cultural diversity, most students in the study stated immediately that their hometowns were very homogeneous. When asked about their cultural background or “family heritage,” they usually indicated that they are of white, European or Scandinavian descent: Norwegian, German, French, Swedish, etc. Most students also identified their “cultural” background or family heritage with a religion, most frequently Catholic or Lutheran. It is clear that the majority of students strongly identified themselves as coming from religious families and/or communities and were extremely close to their families. Many students clearly stated that their faith and their religion were very important to them and to their way of life. Conversely, students from larger cities often mentioned their discomfort with being at a university where most students have little experience with people of other cultures.

In addition to answering questions about cultural backgrounds, students were also asked to discuss their decision to attend college. Though a few indicated that they viewed college as a time to “become well-educated” or “just to learn,” most students responded to this question by indicating that attending college was “just the next step” and was always “expected of me.” Many said that they were attending college to prepare for careers, to get good jobs, to make money and “be happy.” Several mentioned that UND’s sports teams were important to their decisions.

It is quite evident that most students interviewed viewed UND as a “big” place, and that coming to college was a big change for them. Several students mentioned the university’s reputation and reasonable cost. Some chose the university because it is close to home, others because it is “far away” from home. Most students in this study at this point seemed fairly certain of their majors, many choosing UND for particular programs (like Nursing, Forensic Sciences or Aviation).

Though the majority of students viewed college as a necessary means to an end (a good job), and not primarily as a place to expand one’s ideas and self, they did describe important high school classes in terms of valuable learning experiences. When asked to describe a “class in high school that made you ‘think’ more than others,” students mentioned all kinds of classes from English to chemistry to math. The common factors that the students indicated made the class valuable, however, were as follows (these categories reflect a combination of student responses):

- An instructor that clearly cared about the students and the course material
- Discussion classes where students could explore ideas and opinions
- Classes that dealt with “why” questions and engendered thinking and discussion
- Hands-on learning and/or assignments
- Studying issues that gave students a “different perspective” on the world

- Work that helped them “get ready for college”

When asked what kinds of skills they hoped to strengthen in college, almost all of the students in this first interview indicated that they wanted to communicate better. However, when introduced to the GE cross-disciplinary goals as a group, they were less certain about the value of goals other than writing and clearly did not understand a couple of them, such as “evaluating choices” (which they interpreted in terms of personal choices – like “don’t drink too much”) and “creative thinking” (which most students exclusively defined in terms of artistic ability).

Students were asked to rate themselves on each cross-disciplinary GE goal according to their perceived abilities related to that goal (with 1 as the lowest and 5 as the highest). The following chart indicates the averages of student responses (percentages are rounded; average responses are *not* rounded):

Gen Ed Goal	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Critical Thinking			2%	1%	33%	7%	44%	5%	8%	3.67
Communication	2%		7%	3%	24%	5%	32%	4%	23%	3.70
Creative Thinking	3%		14%	1%	29%	3%	28%	3%	19%	3.50
Recognizing Relationships			16%	2%	31%	4%	30%	8%	8%	3.38
Recognizing and Evaluating Choices			6%		12%	4%	50%	1%	31%	3.96
Understanding World Cultures	2%		32%	1%	31%	5%	18%	1%	11%	3.07

*Student perceptions of reasons for taking GE courses.* In addition to being asked to rate their perceived abilities in each area, students were asked to state their understanding of the purpose for requiring General Education courses. Often students felt that there was more than one reason for the requirements. Overall, 10% indicated that the goals were valuable to their education in some way and indicated that they felt “confident” about their skills related to the goals. Thirty-eight percent thought the courses would help them become “more well-rounded” as a person and scholar, while 6% thought the courses were required to help them choose a career; and another 6% indicated that if they should fail in their major or career, GE courses gave them a broader base of knowledge to “fall back on.” Nine per cent of the students indicated that they thought General Education courses were there to help them prepare for their major courses (by developing specific skills or gaining some broad base of knowledge that would help them understand specific areas in major courses). A full 30% of student responses registered discontentment with the courses: students in this group said that they felt the requirements were “worthless,” “hoops to jump through” before getting the privilege of taking major classes, or were there simply for UND to make more money by requiring students to take more credits.

By looking at this data, we can see that the majority of students coming into UND (approximately 70%) already seemed to find General Education goals and courses valuable for some reason. Of this 70%, a majority was able to identify a rationale for GE classes, but most explained that rationale in terms of potential careers. For example they

linked taking General Education courses to “being well-rounded”; however they further explained that the courses would either help them be better at their future careers, or that if those careers didn’t work out, they would have a broad background to “fall back on.” A large share of students felt that the courses were unnecessary and were only there as “hoops” that they had to jump through to get to what really mattered – their major classes. Many students who indicated that they saw value in taking General Education classes noted that General Education was important *in relation to* their majors, that the GE classes either helped prepare them by giving them general background knowledge, or they helped them gain skills, such as writing or speaking, that they would need in major classes and in their careers. Only a small number (approximately ten percent) said that the goals and classes were inherently important to being a better, well-educated person (with no mention of how this would further a career), that they were important for “all around knowledge,” and that people should know a little about many things and subjects.

*Spring Semester (Interview 2 – 95 interviews completed)*

During this interview, students were asked how they think what they have experienced at UND may have impacted what they have learned about themselves, the world around them, and life in general. In response to these questions, students discussed their perceived improvements in study skills and work ethics. They also overwhelmingly indicated a new-found sense of self-confidence. They had survived a year of college, and were pleased that, for the most part, they had been able to adequately meet the university’s and their own expectations (often even exceeding them). Despite these frequently acknowledged improvements, most students didn’t think that others at home had or would recognize many changes. Some students said that their families or friends found them “more mature,” and several mentioned feeling dissatisfaction over their friends’ lack of intellectual growth and of personal maturity.

Alongside recognizing newly developed strengths, most were also honest about admitting that they still needed to study more and take classes more seriously.

Much of what students discussed in this interview regarding shaping their lives and perspectives centered around extra-curricular activities. They didn’t yet seem to be able to connect classroom learning experiences to their lives. There still seemed to be a strict division between classroom and “real life.”

Students were asked, in this interview, to give specific examples of experiences at UND that had: helped them become better writers/speakers; increased their ability to think creatively; increased their ability to think critically; given them some understanding of world cultures; increased their ability to see connections between ideas, concepts, events, etc.; or helped them better evaluate their own or others’ choices and their consequences.

In response to these questions, students provided varied and multiple answers. They seldom used the language of the General Education goals/philosophies or discussed course content. They were more readily able to give examples of specific learning styles or skills (thus concentrating more on *how* they were learning as well as on the skills they were learning, not on *the content* of what they were learning):

*Communication.* Many courses were indicated here as meeting this goal, most frequently, Composition courses. Students who took these classes felt that both their writing and speaking skills were honed in these classes, and students who didn’t have to enroll in these courses at UND (because of ACT scores, transferred credits, etc.) remarked

that they were not getting much practice in improving their writing or speaking skills. Other courses mentioned in this category included courses in: philosophy, child development, Old Testament theology, women's studies, Integrated Studies, Honors courses, creative writing, drama, public speaking, ceramics, sociology, criminology, criminal justice, business and technical writing and acting. There was a high degree of satisfaction with all of these courses; students indicated that they were gaining ground in improving their writing and/or speaking skills because of their experiences in these classes. If students felt that they were gaining ground in improving their speaking skills, they mentioned helpful activities like in-class discussion and presentations. Conversely, they noted that they did not feel that they were improving their speaking skills if they were heavily enrolled in larger lecture classes because there was no opportunity to speak in these classes.

*Creative thinking.* Again, composition courses ranked high in this category among the few students who felt courses encouraged them to “think on different levels” and express their ideas. Other classes which students felt advanced their creative thinking abilities included: psychology, sociology, fencing, chemistry, drama, Integrated Studies classes, and engineering courses. Students who discussed these classes interpreted “creative thinking” in a different way than another group of students who still defined “creative thinking” as “artistic thinking/ability.” Students who still defined the category in this manner, indicated that the following courses assisted them in improving their creative thinking ability: ceramics, music, and photography. Two students also mentioned their experiences at the UND Writers Conference as vital to developing creative thinking skills.

*Critical thinking.* Once again, the classes most often mentioned were Composition courses. In addition to helping them improve their writing skills, students indicated that the course also required that they develop critical thinking skills. The following courses were also mentioned: sociology, philosophy, chemistry, biology and biology lab, flight classes, government, geology lab, Honors classes, Integrated Studies classes, women's studies classes, religion, and history. The Fighting Sioux nickname controversy also was mentioned as an issue that engendered critical thinking.

*Understanding of world cultures.* Many students felt that there was little offered at UND to help them develop in this area. Though a few classes were mentioned as directly engaging students in this area (including Spanish, sociology, philosophy, Indian Studies, History of Western Civilization, Integrated Studies, Honors classes, pottery, and music), more often students talked about extra-curricular activities that presented them with multicultural opportunities. Among these extra-curricular events, students listed: International Center discussions/speakers; International Center dinners; art museum shows, and involvement in the Fighting Sioux logo issue. They also mentioned social experiences such as having a minority roommate or friend, or meeting someone from a different culture in one of their classes. For some of these students, however, experiences with cultural diversity still meant rubbing up against people who did not share their political or religious viewpoint.

*Recognizing relationships.* Courses mentioned here included: Composition courses, biology, psychology, engineering classes, physics lab, natural physics, geology, history, geology, and Integrated Studies classes. The Clothesline Project was also mentioned by two students. One third of the students in Interview Two mentioned positively those instances in class when ideas from another class overlapped or informed

their learning. However, at this point, students still indicated the importance of the professor's role in this connection making. They didn't seem to have the skills yet to integrate information from various classes, though they were excited when professors did this for them.

*Evaluating choices:* Most students continued to define this goal in terms of personal issues. They talked about choosing to study, to drink or not drink, to party or not party, to attend class or not. They were also highly aware of what they considered their peers' "bad choices." The only specific UND classes even mentioned here were flight classes because aviation students realized that in these courses, they are taught about how to make choices while flying that are very important. It is worth noting that flight classes are not GE courses but are part of a major.

### *Year One Comments and Summary*

*fall semester.* Student responses also indicated that at this point they often chose General Education courses based on perceived (or reported) ease of the class, information about the professor (s/he's "easy" or "good"), or because of their majors' requirements. Additionally, students who came in clearly expressing value for a broad education seemed more confident in their class choices and rated their abilities in GE skills higher. Students who clearly indicated that they did not value the General Education goals or requirements also did not seem as enthusiastic about UND or their studies in general. These students were also less confident in rating their General Education skills.

All students in programs where General Education goals are heavily emphasized and where learning is student-centered and discussion-based (the Integrated Studies Program represented by four students and the Honors Program by two students), indicated solid understanding of General Education goals. They also expressed high satisfaction with their courses in these programs because of the close relationships formed with professors and because the classes are discussion based and challenging. Again, there were only a few students from each of these programs involved in the study.

Despite much skepticism about the goals and some clear misinterpretation of goal definitions, students tended to rate themselves fairly high in most General Education goal areas. They expressed the least confidence in their understanding of world cultures and their ability to think creatively. It is especially interesting to note that while most students clearly stated they had little or no experience with other cultures, many of them indicated that they were amazed at the amount of diversity evident at UND. Though often UND is seen as less than diverse by faculty, administrators, and students from larger cities, many of these students were amazed at what *they* perceived as great diversity on the UND campus (i.e. that there are students from many religious backgrounds or that there are students who proclaim their homosexuality, etc.). As noted, most students also did not feel they were artistic in any way (this is the way they defined "creative thinking"), yet in both categories, according to their own ratings, most students placed themselves at average ("3") or above average in these areas.

When asked to discuss General Education courses that they were taking, students commented positively on Composition courses, stating that the courses were helping them with their writing (communication) abilities as well as with their critical thinking skills. Most students who discussed this class also pointed out that they valued small class size and the opportunity to participate in discussions and share their ideas. Any dissatisfaction

with the course tended to center on dislike of an individual instructor, but negative reaction to Composition courses was quite rare. Students also specifically mentioned valuing General Education classes like religion, philosophy, psychology, and sociology classes because they deal with topics that were either personally interesting or that produced “oh wow!” moments for students and helped them see various topics from a different perspective. According to students in the study, class time or assignments that called for their opinions and/or interaction were also highly valued. Students perceived that courses that did these things were helping them develop their critical thinking skills.

In this first interview, student responses did not seem surprising. They were unsure of the goals and reasons for university requirements like general education, and most were eager to begin major classes and were quite focused on college as a means to a career. Many were anxious about being at what they perceived as a large university. Many were also “on their own” and away from family for the first time. A high number of students expressed their belief that General Education classes were important for some reason, and it was encouraging to see that all students indicated a belief in the value of attaining good communication skills.

*spring semester.* Though students in their second semester exhibited “sophomoric” behavior (i.e. they were far more certain of themselves and their opinions than their experiences might warrant), many were also starting to understand their own roles in their educations. They frequently mentioned the need to “study more and cram less,” and they saw the importance of learning to think critically, though students who mentioned valuing this goal also expressed dissatisfaction over their belief that their General Education courses were not giving them enough opportunity to do this.

Many students interviewed also registered dissatisfaction over what they perceived as a lack of courses or experiences that would provide them with the opportunity to learn about world cultures. Some students even stated that they were considering leaving UND because of this; however, students from small towns continued to find UND quite diverse; other students (though they recognized the lack), were quite happy to be in a place where “everyone thinks they way I do.”

The current structure of the General Education program at UND indicates that integration of ideas and knowledge is important. The students, at this stage, were beginning to concur. With the (student) noted exceptions of Composition courses, Integrated Studies, history, sociology, and religion courses, few General Education courses left them room or encouraged them to ask “why” questions or explore connections or implications in their studies. They found this discouraging. Students also indicated that teachers who had clearly stated course goals and who engaged students and were passionate about their subject, were most effective. Classes where professors “just lectured” weren’t rewarding. They also frequently mentioned being disappointed that they weren’t able to make progress toward General Education goals they valued – like improving writing and speaking skills or creative thinking—because they had to take so many large lecture courses.

As one would expect, students who seemed to most profoundly realize the value of the General Education goals were also the ones who would recommend to others that they participate in study groups and take their courses seriously.

## The Second Year of University

### *Fall Semester (Interview 3 – 78 interviews completed)*

Team members interviewed students in the longitudinal study for the third time during the fall of their second year. Overall, students at this stage demonstrated a greater level of maturity and independence than they did in interview two. They were willing to more clearly articulate their perceptions and frustrations with General Education goals/classes, and with their educational experiences in general. Many noted their pride in this new-found level of maturity and in their recognition that it was their ability to make wise choices (personal and educational) that was helping them succeed (they often compared themselves to less-successful students in their residence halls, etc.).

In this interview, students were asked to identify the influences behind their choice of classes for the semester. Sixty-three percent of the students indicated that they chose courses based on the requirements of their major field of study, while 19% indicated that they chose courses based on fulfilling General Education requirements. Seven percent responded that they were taking courses based on personal interest, and 3% indicated that their choices were based what they perceived as “easy” classes. Three percent, likewise, said friends influenced their choices.

Once again students were asked to rate their abilities in each of the General Education cross-disciplinary areas. The following chart indicates their responses by percentage (rounded up) as well as the average student response for each category (not rounded):

Gen Ed Goal	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Critical Thinking	2%		3%	1%	30%	8%	48%	4%	5%	3.39
Communication	3%		10%	1%	18%	5%	36%	5%	21%	3.46
Creative Thinking	2%	1%	9%		34%	8%	31%	3%	12%	3.46
Recognizing Relationships					25%	5%	55%	10%	5%	3.79
Recognizing and Evaluating Choices			4%		12%		45%	6%	32%	4.37
Understanding World Cultures	3%		10%	6%	34%	5%	25%	6%	9%	3.20

After a full year plus in college, students ranked themselves differently than they did in their first interview. Though the difference isn’t large, averages in the areas of critical thinking and communication decreased. However, averages in the categories of recognizing relationships and evaluating choices went up. The area of evaluating choices increased by over one point (from 3.96 to 4.37). This is probably due to the fact that students still defined this category in personal terms, and not in academic terms. Most students mentioned things like “choosing to study more,” “getting more sleep,” “choosing not to party,” etc. as indicators of their success in this area. It is also worth noting that students now rated themselves slightly lower in the area of communication even though, in both Interviews Two and Three, students discussed the great value of developing good communication skills and almost all students identified classes that were helping them develop those skills. It could be that students now recognized that “good

communication skills” are different, and more difficult to attain, than they thought in the first semester of their freshman year.

*Creative thinking.* Because questions about creative thinking in the first year yielded mostly answers related to courses in the arts, in this interview students were asked to specifically discuss their definitions of “creative thinking.” Students offered the following definitions:

- “Developing your own ideas”
- “Using your imagination”
- “B.S.ing”
- “Coming up with your own ideas...not just reciting what you’ve learned”
- “Thinking outside the box”
- “Being able to see all aspects of a situation and choosing the best one”
- “Coming up with new and good ideas”
- “Taking everything you’ve learned and then going and using it”
- “Thinking about abstract ideas”
- “Dreaming”
- “Arts and Crafts and things”
- “Going deeper into things”
- “Learning different ways to solve problems”
- “Evaluating ideas and challenging them”
- “Putting a different spin on things”
- “Looking at things from different angles”
- Doing creative things – playwriting, skits, ceramics, painting
- Looking at things with different perspectives, not having to have a right or wrong

Students clearly were developing more varied definitions about what creative thinking might mean and had moved beyond defining it simply as artistic ability.

When students were asked whether they had had opportunities to “think outside the box” (or participate in creative thinking) at UND, 44% of these responded “no,” while 42% said “yes.” Fifteen percent remained unsure. One student said, “I haven’t really had much of a chance to do that ([think outside the box]). I am looking forward to more independent problem solving when I get farther [into my major]. So far I just need to learn what I am supposed to, so that I can get the generals out of the way.” This student’s comment was fairly representative of many student responses.

Of the students who indicated that they were not receiving opportunities to think creatively in courses, many indicated that they thought that the professors in their courses either were not allowing the opportunity for this kind of thinking (and could) or that they were, in fact, actively discouraging this kind of thinking. One student who had purposefully taken a course in creative writing thought that the professor had shut down creativity with inappropriate rules for writing.

Of the students who acknowledged opportunities to think creatively, many named non-class activities such as fraternity/sorority projects that they felt helped them think creatively. In fact more students identified extra-curricular activities as the main venue for creative thinking than formal classes. Students who really expressed confidence in what creative thinking means linked their definition to specific events/classes/ assignments that demonstrated the value of what they defined as creative thinking.

*Spring Semester (Interview 4 – 76 interviews completed)*

In this interview, Study Team members asked students to discuss their best decisions so far in college, as well as the things they would change. They responded with the following. (Responses are representative of the group and are in the students' language.)

*Best decisions.*

- Getting involved in different organizations
- Internships
- Joining sorority/fraternity
- Going away to college
- Choice of friends/roommates
- Coming to UND
- Choosing major
- Travel abroad
- Getting to know professors well
- Remaining physically active
- Getting involved with the International Center
- Taking a foreign language
- Attending classes (not skipping)

*Things to change.*

- Cut back on work hours
- Choice of friends/roommates
- Work harder in class
- Take more classes (enroll for more credits)
- Study harder
- Cut back on extracurricular activities
- Major
- Not deciding on a major earlier
- Get involved in more student organizations

Students were also asked if they had “decided on a major or made changes in ... career plans.” Fifty-three percent indicated that they had changed their major, while 41% said that they had not; 6% remained undecided. Fifty-five percent of the students indicated that General Education courses had influenced their decision to change majors or had confirmed their initial declaration of major.

Rather than rank their abilities, during this interview, students were asked to designate what they felt were the most important General Education goals. They responded:

1. Communication 38%
2. Critical Thinking 25%
3. Familiarity with World Cultures 12%
4. Evaluating Choices 11%
5. Creative Thinking 8%
6. Making Connections 8%

7. Problem Solving 5% [students mention this although it is not one of the goals]

Once again, students used Composition I or II as examples of courses that provide opportunities for improving communication, critical thinking, and creative thinking skills. At this point too, several students mentioned that the different kinds of General Education classes helped (or forced) them to use different kinds of thinking and learning skills. This kind of recognition may indicate that students had begun to advance in ways that are described in the *disciplinary goals* of the General Education Program. This kind of recognition may indicate that students had begun to advance in ways that are described in the *disciplinary goals* of the General Education Program; these goals address the ways in which methods of inquiry and thought vary, for instance, from the Sciences to the Humanities.

In this section, some students also offered the criticism that it isn't easy to study abroad because of all the restrictions and requirements placed on them by majors which are highly prescriptive. This observation gels with those made in Year 2 where students noted their friends' study abroad experiences with envy but indicated that the experience was not always feasible for them.

*Understanding world cultures.* In order to explore students' involvement in multicultural activities available at UND, in this interview the Study Team asked students to identify experiences outside of class at UND which had influenced their understanding of other cultures. They responded as follows:

- No multicultural experience: 20%
- International Center events/lectures/activities: 33%
- Knowing people of other races/cultures: 10%
- Wacipi ("Pow wow"): 7%
- Fighting Sioux logo issue: 5%
- Travel abroad: 3%
- Art Museum shows/events: 2%
- Women's Center events: 2%
- Era Bell Thompson Cultural Center events: 2%
- Misc. UND lectures/discussions: 2%

Although asked to identify out-of-class experiences, some students indicated that they had gained familiarity with other cultures in classes. Most classes mentioned were language classes. Diversity of opinions and ideas also continued to stand out as important for students who came from smaller communities.

*Advice to other students (about general education).* When asked what their advice would be to incoming freshmen regarding General Education courses, students responded in similar ways. The following list indicates students' advice as well as the percent of students who gave that advice:

- "Get them out of the way": 20%
- Take something "fun": 19%
- Take them seriously; they're important: 17%
- Pick courses taught by "good" professors: 14%
- Take easy classes to boost GPA: 12%
- Take something "unusual": 7%
- Take classes to learn something new: 5%

- Study: 3%
- Take them to help choose a major: 2%
- Spread them out: 1%
- They are hard: 1%

*Good/Bad classes.* Students were asked to describe what, in their estimation, makes a class good or bad and what professors do in those courses. For “good classes” they provided the following responses:

- Professor has good communication skills
- Professor speaks English clearly
- Professor is motivated and positive
- Professor is friendly
- Professor makes sure everyone understands everything
- Professor has “some teaching skills”
- Professor is respectful of students
- Professor uses PowerPoint
- Professor is willing to help, even outside of class
- Professor gives reasonable exams
- Professor uses *BlackBoard*
- Professor is open-minded
- Course is well-laid out
- Course challenges you
- Course is easy
- Course involves student interaction
- Course has discussion element
- Course allows for “hands on” work
- Course is “one you want to go to everyday”

For “bad classes” they provided the following responses:

- Professor is not prepared and/or is not organized
- Professor just reads through notes
- Professor just lectures
- Professor goes too fast
- Professor is difficult to understand
- Professor is unwilling to help or answer questions
- Professor does not respect students
- Professor writes on board too much
- Professor does not give fair or effective tests
- Courses with too many students
- Course doesn’t require that you be in class to pass
- Course where you work hard but get nothing out of it

Students' responses were typical and expected here. However, it is interesting to note that students responded to the question, “What makes a *course* good or bad?” by primarily discussing the professor, not the course material or their own involvement. Although they were not specifically asked to comment on professor behavior, it is clear from the nature of their responses that at this point in their academic development, they saw the professor and his or her personality as a driving force behind a class. They

highlighted professors' actions and course structure rather than their own attitudes and abilities, or even course material. Only two students responded by indicating that the student plays an important role in "maximizing the good" and "minimizing the bad" in a course. All other students viewed good or bad courses solely in terms of either the professor or class structure.

### *Year Two Comments and Summary*

*fall semester.* Many students started to register their multicultural experiences in this interview. The great transition from high school (or working world) to college life had transpired, and they were now processing the "cultural differences" around them in other ways: they were seeing the cultural differences on campus as opportunities for knowledge and growth; however, this area still clearly remained the least represented in terms of classes and experiences.

Students who were involved in the Integrated Studies Program mentioned that the classes in this program really helped them develop critical thinking, communication, and reading skills but registered their frustration that there are few opportunities in the larger university curriculum for the kind of learning and connection making that they experienced in ISP classes.

Once again, students frequently mentioned their frustrations with professors who "just get up there and talk." It is clear, however, that students valued many larger lecture classes if there were opportunities for engagement and opinion, and if the professor had a multi-faceted presentation style. They needed the professor to drive the atmosphere of the classroom.

When asked what they might change, or what opportunities others around them have had that they wished they could experience, students mentioned frustration with fellow classmates who don't care and don't seem to be working. Many students mentioned envying others' study abroad experiences, yet, interestingly, didn't always seem to see this option as feasible for themselves.

Several students in this interview confessed that they were now, for the first time since high school, reading an entire book.

*spring semester.* Students perceived themselves maturing at this time. They realized the need to study more and socialize less; however, they also didn't yet seem to indicate a strong immersion in the learning process or a high value for general education beyond its being a university requirement or something needed for their majors. They still didn't seem to place themselves in the middle of the learning process but instead gave over the responsibility for their learning experiences to the professors in their courses.

It also seems that by the end of their sophomore year, more students were taking advantage of some of UND's multicultural opportunities (like visiting the International Center); however, many others noted that they hadn't made the effort to take advantage of these opportunities yet. Students indicated that restrictions placed on them by major requirements created another roadblock to gaining academic multicultural experiences. They felt such restrictions left them no time to study abroad or to elect courses focused on world cultures.

*The Third Year of University*

*Fall Semester (Interview 5 - 58 interviews completed)*

This interview took place during the fall semester of the students' third year at UND. At this point in their academic careers, 51% of the students indicated that they had finished their General Education requirements; 47% indicated they were almost finished (with only 1-3 classes left), and 2% indicated that they were partially finished. Of that number, 15% said that most of their General Education courses were part of their major (required by their major), and 8% of the total said they were glad to be finished with the classes.

In addition to being asked about their General Education requirements status, students were also asked what they did over the summer, and what they were looking forward to (after another summer's break). Many students indicated that they had taken summer courses. Most students said that classes were now getting a lot harder – that upper level General Education classes and classes in the major are, indeed, harder than lower level GE classes. They also noticed that the freshmen “seemed younger” and that they, themselves, felt “older.” Though they perceived upper level courses as harder, many said that major courses were smaller (lower enrollment) so that they were now more interactive and there was more opportunity to ask questions and state opinions. They appreciated this. Overall, this group seemed more comfortable with school and less “cocky” than they were at the beginning of their second year. Every student indicated at this point that they had declared a major, and many had declared minors. A few indicated that they were not entirely happy with their majors but felt it was “too late to change.”

As in all other fall interviews, students were asked to rank their abilities in the General Education categories. Their responses follow. Percentages are rounded up; average student responses are not rounded:

Gen Ed Goal	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Critical Thinking			1%		10%	4%	63%	10%	10%	3.98
Communication			4%		14%	6%	40%	10%	24%	3.96
Creative Thinking			10%		22%	14%	38%	6%	9%	3.55
Recognizing Relationships					16%	6%	49%	7%	22%	4.02
Recognizing and Evaluating Choices					7%	3%	46%	7%	37%	4.30
Understanding World Cultures			13%	3%	35%	5%	21%	4%	18%	3.45

Student rankings have moved up, overall. No students placed themselves in the two lowest categories, and many more students ranked themselves, overall, at the level of “4” or higher. They still indicated especially high scores in the categories of “recognizing relationships” and “evaluating choices.” However, they also still defined the latter category in terms of making personal choices (not in terms of academic learning). The lowest ranked category is still “understanding world cultures.” The bulk of experiences in this category remained centered outside the classroom and usually involved International Center activities and/or friends of different cultures or nationalities. Of the

group, 29% report that they had not had opportunities to learn about race, gender, or other cultures at UND; 34% said that they do learn about these topics in class, and 36% said that they had had experiences in these areas outside of UND classes. Students were even more vocal in this interview about their disappointment over the lack of diversity and multicultural opportunity at UND.

*Learning approaches.* When asked whether they might be approaching learning differently in their major courses, students overwhelmingly responded by saying that they take their major classes more seriously than their General Education classes. Many mentioned that in the General Education classes, they had a “try and teach me attitude;” whereas, in their major classes, they were willing to try harder to learn the material because it “counts more,” and because you have to retake classes in your major for which you receive a “D.” Some said that they felt they were wasting money if they were not taking classes for their major. A few said that in all their classes they were “just trying to get by and do what they tell me to do,” but others mentioned that they now had to “study [their] butt off.” Almost all students agreed that major classes are much harder and require more work and study.

Students were also asked to evaluate whether or not they had had opportunities in their classes at UND to “think outside the box or in new and original ways” (creative thinking) and to “deal with a problem and find information to help solve it” (critical thinking). Their responses break down as follows:

Think Outside the Box (in class):

Yes: 65%

No: 28%

Outside of Class: 7%

Problem Solve (in class):

Yes: 34%

No: 25%

Outside of Class: 28%

Students were also asked to discuss times when they found themselves questioning things they had been told by their professor/textbook or by others who had some authority. Although the team had intended to register students’ rates of “questioning authority,” some students interpreted this question as asking whether they had ever asked a question of their professor. Forty-five percent of the students indicated that they had questioned things their professors had told them or had done in class, and of that 45%, about 50% indicated that they had actively done something about their questions. Their actions here ranged from looking up information on their own, to asking other experts in the field, to actively questioning the professor. Most students, however, did not directly confront their professor about their questions, and frequently students mentioned that they were hesitant to disagree openly with their professors because they didn’t think the professor would respond well and might penalize the student in some way. Less than 3% of the students indicated that they had questioned exams or texts.

*Spring Semester (interview 6 – 60 interviews completed)*

This interview started out with some basic questions regarding students’ perceived high points and low points in regards to their majors. Since this interview was

conducted at the end of the students' third year, they had experienced several courses in their major fields of study at this point. High points students mentioned included:

- Courses in major challenged you to think
- Major courses required "hands on" experiences
- More major-related, comprehensive projects (many were groups projects)
- Good teachers
- Lower course enrollment/closer student-faculty relationships

Low points mentioned included:

- "Subjective" grading
- Cost of education
- Sitting in class
- Difficulty of classes
- Poor teachers

Of the group, 86% indicated that they were satisfied with their major, and 9% said they were not, while 5% did not register an answer.

Related to the communication and critical thinking goals (to exploring if students were "finding their own voice"), we asked students where in their life at UND they felt they'd been given the most opportunity to express their thoughts, feelings and values and to learn how well others have been able to understand them. Students gave a variety of answers, but most commonly their responses broke down as follows:

- In classes: 43%
- With friends/significant others: 20%
- In campus organizations: 12%
- In sororities/fraternities: 11%
- In the Honors Program: 5%
- Other: 4%
- No opportunities: 5%

In addition to registering their perceptions about their experiences at UND in general and about their majors, students were asked if they could see learning connections between General Education courses/materials and major courses/materials. Seventy-seven percent of the students responding said there were clear-cut connections between the two while 23% said there was no evidence. The following comments typify student explanations/descriptions of the kinds of connections they observed:

- Writing skills learned in Composition courses were helpful in major classes
- Communication skills were essential to upper level classes
- Science courses were essential to upper level study in sciences
- "Biology is everywhere!"
- Sociology courses helped forge connections between various areas of learning
- Criminal Justice courses forged connections between various areas of learning
- Courses helped students become "culturally sensitive"
- Courses helped students "get ready for majors"

Some students made qualitative remarks about the relationship between GER courses and courses in their major: lower level GE classes were "the worst," while upper level classes

were “worth taking.” One quite notable response to these questions came from a student who was retaking some failed General Education courses at the end of her third year. This student clearly stated that she found the courses much more relevant to her studies and to her life than she did before. The connections between the General Education courses and her major field of study were quite clear and important. When she had originally taken the courses earlier in her academic career (before taking her major classes), however, she had not seen these connections or realized the importance of the GE courses.

This interview asked students to address the General Education goal of recognizing and evaluating choices. Students were specifically directed to discuss this goal in terms of their *classes*, not their personal lives. It seemed hard for students to respond to this question without specific prompting from interviewers (interviewers noted the specific prompts in their write-ups). Therefore, it was difficult to tell whether students truly understood this goal or whether they were influenced by the interviewers' prompts. Of the group, 70% said that, yes, they had been given the opportunity to recognize and evaluate choices in their classes, while 23% said they did not, and 6% indicated that they had these opportunities outside of class. Again, most of the students still discussed this goal in terms of personal choices. Even the students who indicated that they had had class experiences in this area talked about choices to study, to read, to attend class, etc., and not about specific, academic, learning moments or choices of world leaders, researchers, etc.

*Important General Education goals.* During this interview, students again chose a GE goal that seemed important to them. Their choices were as follows:

1. Communication: 50%
2. Critical Thinking: 15%
3. Evaluating Choices: 15%
4. Familiarity with world cultures: 8%
5. Creative Thinking: 8%
6. Recognizing Relationships/Making Connections: 3%
7. All Goals Important: 2%

Choice of Communication increased from 38% in interview 4 to 50% in this interview, while Critical Thinking dipped from 25% to 15%. Evaluating Choices moved up from 11% to 15% and Familiarity with World Cultures dropped from 12% to 8%.

Recognizing Relationships went down from 8% to 3%, and Creative Thinking remained steady at 8%. Communications continued, by far, to be the goal most often chosen.

In this interview, students offered the following advice to incoming freshmen regarding General Education courses (ranked by percentages of response):

- Take the classes seriously: they're important: 32%
- Take some classes based on personal interest: 30%
- Get done/out of the way quickly: 14%
- Take easy classes to boost GPA: 8%
- Take a variety of classes: 8%
- Choose based on professor: 6%
- Spread out over course of study: 3%

The shift in responses on this question from interview 4 to this interview is notable. In one year, student perceptions regarding the importance of General Education goals seem

to have shifted considerably. In interview 4 (at the end of their second year), students indicated that the most important advice they had for others about General Education courses was to “get them out of the way quickly.” Twenty percent of the students gave this answer. In interview 6, a year later, only 14% indicated that they would give this advice, while 32% said the most important advice would be to “take the classes seriously.” In interview 4, only 14% gave this advice. Students at this point also found taking classes based on personal interest more important; 30% of them gave this advice, while only 19% gave it in interview 4. By interview 6, several students stated that they saw the value of General Education courses and goals because of experiences they’d had in major courses, internships, and in life in general.

### *Year Three Comments and Summary*

*fall semester.* In this semester, students were beginning to think more carefully about their educational goals, and, in particular about the value of General Education goals. Though they overwhelmingly indicated that they took their major classes more seriously, many of them also indicated that there was always something valuable to be learned in any class, including General Education classes, and that they were now thinking about taking classes in areas in which they “needed more work,” like in the area of learning more about other cultures. Of course, it was difficult to know whether these students were representative of all UND students and that at this point in their academic careers, most students do take their educational choices more seriously, or whether these students had been influenced by this study so that they were now, necessarily, taking more interest in those choices.

It seemed apparent from the discussion of their learning approaches at this time, that students were now taking more responsibility for their learning in classes and, therefore, the classes seemed more challenging. Also, most major classes at this time were upper-division, while most students had previously experienced primarily introductory level general education courses.

The “creative thinking” goal still seemed fuzzy to students. One student mentioned understanding more about GER goals as a result of involvement in extra-curricular activities than anywhere else (classes). Several students mentioned the importance of taking “easy” General Education classes early to boost the GPA so that they could qualify for admittance into their majors, and most students indicated that there would be no time as seniors to take any General Education or elective courses. They planned to be enrolled entirely in major courses in their senior year. Many students noted that they wished they had been able to choose General Education courses based on personal interest rather than on what their majors required of them.

*spring semester.* Though students registered a strong degree of satisfaction with their majors and major classes, citing interesting and “useful” course material and closer relationships with faculty members and cohorts of students in the major as reasons for their satisfaction, it was clear that students were better able to see the value of General Education courses at this stage in their academic careers. They talked about the importance of choosing courses of interest, of seeing the value of what they had learned in GE courses that supported their learning in the major. The shift in advice that students gave about General Education courses and the observations of the student re-taking failed General Education courses as third-year students (reported above), all indicated that

many students at this point valued General Education courses to a greater degree than they did as sophomores. This could be because they had come to see the value of those courses as they related to what really mattered to students (their major classes, internships, etc.), or because in their sophomore year, they were still anxious to begin the major classes, and now that they had had a year of those classes (which they termed as difficult even if they were rewarding), they may feel in hindsight General Education courses were broader based, and, perhaps, easier.

It was interesting to see, too, that students found that they were meeting General Education goals in their major classes. Students mentioned critical thinking, making choices, recognizing relationships, and communication in terms of the major classes. This seemed to indicate that the overarching cross-disciplinary goals of general education at UND pervade upper level major courses as well as the designated General Education courses.

At this point, too, students took the portfolio process more seriously. Many of them actually brought their portfolios with them (most had failed to do this in the past) and they were able to talk about them critically. Also, they now viewed the portfolios as a place to document important life events. Many of them spoke with pride about the items they were placing in the portfolios. This could be because many of them were also now keeping portfolios for other reasons, such as for classes in their majors.

Again, it was often hard to process data in this section because interviewers asked questions differently or placed different emphases on questions. Regarding learning about choices, interviewers asked, “Are there any courses in which you’ve explored the choices others have made,” but probes varied a great deal, conveying different messages and producing different kinds of responses.

*The Fourth Year of University*

*Fall Semester (interview 7 – 20 interviews completed to date)*

Study Team members asked students to describe ways in which UND courses asking or enabling them to perform or grow. Interviewers were encouraged to prompt students to discuss related General Education goals. Eleven of the students indicated that General Education classes were helping them grow/perform while nine said they weren't. Examples students gave regarding classes that were helping them were varied, as were the learning experiences that helped them.

Some of the types of experiences that enabled them to perform or grow included: those that required integration of complex processes; courses that allowed discussion; courses and clinicals that required communication with diverse others; and those that enabled the student to broaden their view of an issue.

There was also a great variety of classes and projects mentioned as academic experiences that "enriched you as a student," especially courses that require work in understanding different perspectives and practicing teamwork and those kinds of projects that lead to improved self-understanding and self-confidence. Also courses that opened eyes to ways of thinking that had not previously been considered were important in this category.

In this interview Study Team members asked students what courses or learning experiences had been "turning points" for them. Most of the responses were either related to a sudden realization that they needed to take their coursework seriously or to a decision or the reinforcement of a decision to major in a particular area (a class that helped someone realize what s/he didn't want to major in; bad grades; a co-op experience that reinforced a decision about a major; getting away from the University to gain perspective). The events of September 11 were a turning point for one student.

Students were asked what they do outside of school that enhances their learning. They responded with the following:

- Watch CNN
- Class Projects
- Camping with friends
- Playing computer games
- Doing "philanthropic activities" with sorority/fraternity
- Doing personal reading/research
- Job searching
- Working at UND Writing Center
- Bartending
- Work
- Hanging out with friends
- Going to public presentations
- Band
- Internships
- Nothing

The rationale tied to these activities, when expressed, most often had to do with learning about people or learning skills that would be helpful in majors and jobs. Some were more general ways of enhancing learning, such as watching CNN and reading.

Once again, students ranked their perceived abilities in the General Education cross-disciplinary categories. The following chart indicates the percentages of their responses (rounded) as well as the overall average response in each category (not rounded):

Gen Ed Goal	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Critical Thinking					20%		70%	10%		3.85
Communication			10%		15%		40%	15%	20%	4.15
Creative Thinking	5%		10%		25%	10%	40%		10%	3.45
Recognizing Relationships			5%		20%		55%	10%	5%	3.82
Recognizing and Evaluating Choices			5%		20%		25%	15%	35%	4.12
Understanding World Cultures	5%		10%	5%	30%		25%	5%	20%	3.50

*Recognizing relationships.* During this interview, students were asked about the General Education goal, “Recognizing Relationships.” Thirteen said they had had opportunities to do this in class, while seven said they had not yet had those opportunities. Most often mentioned in student comments was their appreciation of learning about the same issue from different angles in two different classes. These relationships were not always purposefully constructed. Sometimes students serendipitously signed up for two courses that happened to cover similar materials, and the students themselves found the connections. They seemed better able to make and recognize these kinds of relationships at this point than in earlier years, often mentioning that their major classes were now recognizably building on information they gained in other courses, both GE and major.

*Spring Semester (interview 8 – 16 interviews completed to date)*

Overall student impressions of what works and what’s valuable in terms of General Education at UND indicated that they didn’t necessarily perceive the importance of General Education courses as first year students. Then they often considered these courses boring or annoying; however, now in their final year, they realized how important the classes were. They valued the skills that they gained in those classes as well as the broad range of knowledge they acquired. They also realized how important those classes were in terms of preparing them for classes in their majors. One regret was that they didn’t have the chance to take more writing-intensive classes. Another was that their majors required them to take certain General Education classes, and then they didn’t have time to take others which interested them.

When asked which single General Education goal they thought would be most important *as they moved beyond UND*, they responded as follows:

1. Communication: 11
2. Critical Thinking: 6
3. Understanding World Cultures: 3
4. Creative Thinking: 1
5. Recognizing Relationships: 0

#### 6. Evaluating Choices: 2

Because some students named more than one goal as "most important," these added up to more than the total of 16 students. Interestingly, five of the students said they thought that "Understanding World Cultures" would be the least important skill for them in their life beyond UND. "Creative Thinking" was listed three times, while "Recognizing Relationships" was listed once. Seven students said they thought all GE goals would be important and so couldn't list any one as "least important."

When students were asked to indicate whether or not they felt they'd had opportunities in their UND classes to learn about other cultures, and 81% said they felt they had, and 19% said they had not.

Students were also once more asked to consider the GE goal about "making choices" by discussing ways it applied to the academic side of their education. At this point, only 38% indicated clearly that they could make this connection; 56% said they had not and 6% were unsure.

Students mentioned a multitude of courses when asked to list their best course at UND; no pattern was detected in their response.

#### *Year Four Comments and Summary*

*fall semester.* Eighteen of the 20 students indicated that they valued the General Education goals and that they saw these goals as valuable in some way. Those that indicated that they thought there should be changes to the General Education goals or program talked about their frustrations over being required to take specific classes for their majors and not having much personal choice. A greater analysis of fourth year interviews will be available at the end of this year, when the second cohort finishes their fourth year of college.

## Findings Related to Specific Cross-Disciplinary General Education Goals

### *Communication*

Students consistently viewed communication and critical thinking as the most important GE goals. This consistency continued, with some variation, throughout the years of study at UND. Both skills were usually considered important aspects of majors and of life after college. A number of students expressed the idea that "you must communicate no matter what; everything else depends on that." Students also seemed to value highly professors' communication skills.

Students rate themselves highly in this skill compared to other skills. At the same time, students felt they became better communicators, both in writing and speaking, as they progressed through their studies. There was, however, a dip in student self-rankings about this ability in the sophomore year. Their responses moved from an average of 3.7 to 3.46, then back up in junior year to 3.96. It seemed that perhaps students became aware that strong communication skills (both in speaking and writing) were more difficult to attain than they had originally thought. Students' sense of improvement in spoken communication seemed to have much to do with overcoming reserve/shyness and finding one's own voice. A number of students spoke of communication improving as they became better thinkers.

Comp 110 and 120 were most often cited as courses that help students learn to write, but a wide variety of other courses were mentioned as well (e.g. Meteorology, Drama, Honors, Religion, Nutrition, Biology Lab).

There was more variation in response to learning to be a better speaker than there was to learning to be a better writer. Many students reported they saw no improvement in this skill during their first year; several of these mentioned that large lecture classes were not conducive to learning this skill. On the other hand, there were references to a variety of courses (usually those that require presentations or which are small enough to enable discussions) which led them to become better speakers (e.g. Comp., Spanish, Aviation, Macroeconomics). There was also considerable reference to non-academic experiences supporting the development of this skill (e.g. fraternities/sororities, housing activities, the challenge of articulating ideas to people who think differently; student government).

### Student Self-Rankings Over Time

Communication	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1	2%		7%	3%	24%	5%	32%	4%	23%	3.67
Interview 3	3%		10%	1%	18%	5%	36%	5%	21%	3.46
Interview 5			4%		14%	6%	40%	10%	24%	3.96
Interview 7			10%		15%		40%	15%	20%	4.15

### *Critical Thinking*

This GE goal was also cited as an important one with growing frequency as students entered their majors and gained practical experiences. Students' understanding of critical thinking, it should be noted, varied a great deal. Most often it was referred to as the ability to analyze, to consider all variables, or to problem-solve. A fair number of students felt they were thinking critically when they had to apply theory to real-world

practice. Occasionally students grouped it with creative thinking and spoke in terms of improvement in "thinking." There were students who said all classes helped them with this, while others, at least early in their General Education work, thought none did. More often, however, students mentioned particular classes that helped them become better critical thinkers (e.g. Criminal Justice, Comp 110 & 120, Integrated Studies, Honors). Here, too, there was a wide range of classes. Some students thought that the simple process of having to "deal with people" improved their thinking skills. On the other hand, students do not report challenging authority in meaningful ways.

A number of students mentioned research projects as significant learning experiences. Although it was not a large number who talked about them and these projects were not often associated with a specific General Education goal, students' descriptions suggested that these projects were particularly pertinent to the development of critical thinking skills. Such research projects, when described, were as likely to have occurred for an extracurricular activity as they were to have occurred for a class. For example, one paper, which required interviewing American Indians about the Sioux logo, completely changed a student's position on the issue. Another research project aimed at understanding Islam enabled a student to knowledgeably respond to a prejudiced friend. Students like these projects because they broadened their view. Even a required research project on career choices for a class opened a student's eyes to a greater understanding of possibility.

With time, usually in their second year, most students described themselves as becoming more analytical, more willing to ask "why," and felt that they were seeing real growth in this area. Some students thought that dealing with people who held diverse ideas led them to become better critical thinkers; others pointed to the constant need to solve problems as leading to improvement. At least one student said that all courses have trained him to be more analytical and several in the Nursing Program said that their major emphasized critical thinking. At the same time, however, students' self-rankings showed a significant dip in this response from freshman to sophomore and from junior to senior years.

It was interesting to notice that students came into UND fairly certain that they already had above average critical thinking skills. By their sophomore year, however, they were beginning to redefine what critical thinking really means, and that it is, perhaps, either different or more difficult than they had originally thought. (Students grew, for instance, in their understanding of the importance of scrutinizing various sides of an issue and of seeking evidence to support ideas.) This difference is indicated below. By their junior and senior years, students rated themselves higher.

#### Student Self-Rankings Over Time

Critical Thinking	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1			2%	1%	33%	7%	44%	5%	8%	3.67
Interview 3	12%		3%	1%	30%	8%	48%	4%	5%	3.39
Interview 5			1%		10%	4%	63%	10%	10%	3.98
Interview 7					20%		70%	10%		3.85

### *Creative Thinking*

Creative and critical thinking were often difficult to separate for some students, and "thinking about things in different ways" was considered as much a part of critical thinking as it was of creative thinking. Early in their education, many, but by no means all, students equated creative thinking with artistic activity and as a result were sometimes disappointed with themselves in this area.

Due to an early sense of this, the Study Team chose to seek out explicit definitions of "Creative Thinking" from students in Interview 3. When students didn't offer a useful definition, they asked about experiences that required them to "think outside the box." At this time, it seemed as if students were developing more varied definitions of what creative thinking might mean. Then again in Interview 5, team members asked, "Have you had opportunities in any of your classes to think or act "outside of the box" or in new and original ways?" They also asked here about encouragement or requirement to do so, and asked about other aspects of their lives as students. At this time 65% of the students said they had opportunities to engage in creative thinking, but by interview 8, students again felt the University did little to encourage development of this one.

Students' understanding of creative thinking seemed to waver depending on how it was talked about, and that, in turn, seemed to affect students' ability to clearly indicate places in their studies that encouraged it. Nonetheless, students were able to point to occasional courses in the Fine Arts, to particular experiences in Comp 110, and to particular kinds of classroom experiences (e.g., role play, group projects, but *not* lectures) as academic experiences that allowed creative thinking.

There was also reference to particular majors that students felt supported creative thinking. Teaching and Learning, for instance, encouraged creative methods of presenting projects that students felt would be useful in developing their own creative teaching methods. Marketing, in the major, but also in fraternities and in ROTC lessons, required students to develop creative ways of "selling" something to others. At the same time, there were some students that felt their majors allowed little room for creative thinking (e.g. Nursing, Business, Engineering). One Nursing student, when asked about thinking "outside the box," said she does "somewhat, but not frequently...we need to be critical thinkers in nursing."

There was a fairly large number of references to extra-curricular projects that enabled students to work creatively in satisfying ways. Several spoke of their own out-of-class, personal creative activities, such as poetry or fiction writing.

A few students said that they didn't like to think creatively. They preferred to be told exactly how to do something. Several others indicated in early GE classes, that they felt that professors often actively discouraged creative thinking in their GE classes.

#### Student Self-Rankings Over Time

Creative Thinking	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1	3%		14%	1%	29%	3%	28%	3%	19%	3.50
Interview 3	2%	1%	9%		34%	8%	31%	3%	12%	3.46
Interview 5			10%		22%	14%	38%	6%	9%	3.55
Interview 7	5%		10%		25%	10%	40%		10%	3.45

### *Recognizing Relationships*

From the very beginning, most students responded to questions about this goal with examples of their own relationships with others. Early on the study team noticed this and began using the word *connections* when discussing this goal. In Interview 2, for instance, this substitute language was used in one question. Nonetheless the language of *relationships*, for consistency purposes, continued to be used in other questions and usually prompted discussion of students' personal relationships. In interview six, the team asked the students to "describe any connections...noticed between what you are studying in your major and what you are studying in your general Education courses" and "...between what you are learning in courses and your life otherwise at UND." When asked in this way, students pointed readily to connections between ideas, and skills learned.

Although students often related this goal to their own personal relationships, they were also able to describe this skill developing academically. They especially appreciated teachers who helped them make connections between courses and between course content and events in their own lives. The themes in Composition and Integrated Studies, which helped draw connections for students, provided an example. Occasionally other kinds of relationships could be recognized by students themselves (e.g. connecting study of Baroque Music with the Baroque Period in Spanish Studies or seeing connections between Macroeconomics and Information Systems).

Once in their majors, it became much easier for students to connect what they were learning in their courses. They could see how some General Education classes related directly to their major and how the courses in their major related to and often built on one another. By the beginning of the third year, a number of students were saying, "Everything is connected now," or "I see all courses as linked for the first time." One student who was re-taking some General Education courses to improve her grade said she could now see lots of connections that she hadn't seen before. Most often, these connections were either made in students' *major* courses or they were made by professors (not be the students themselves). Internships also provided excellent opportunities for students to make connections between their courses (both major and GE) and the "real world" of work. Though students valued these relationships when they were made, it's difficult to say to what degree GE courses promote student achievement in this area.

The ability to recognize relationships among events, ideas, etc. was occasionally mentioned as necessary for critical thinking.

#### Student Self-Rankings Over Time

Recognizing Relationships	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1			16%	2%	31%	4%	30%	1%	8%	3.38
Interview 3			3%	1%	29%	5%	47%	6%	9%	3.79
Interview 5					16%	6%	49%	7%	22%	4.02
Interview 7			5%		20%		55%	10%	5%	3.82

It should be noted that students' rating of themselves in years 2-4 are higher than they are in year one.

### *Recognizing and Evaluating Choices and their Consequences*

Of all GE goals, this one seemed to be the most clearly and consistently misunderstood. Students almost always spoke of learning in this area as it related to understanding the consequences of their own (and their friends') *personal* choices – regarding which they felt they learned a lot. For instance, many referred to watching roommates make bad personal choices (about drinking or lack of study) and learning from them. They also commented on similar poor choices they themselves made, especially during their first semester of college although, based on their self-rankings, students indicated a high rate of ability in this area from the beginning.

#### Student Self-Rankings Over Time

Evaluating Choices	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1			6%		12%	4%	50%	1%	31%	3.96
Interview 3			4%		12%		45%	6%	32%	4.37
Interview 5					7%	3%	46%	7%	37%	4.30
Interview 7			5%		20%		25%	15%	35%	4.12

Even interviewers had difficulty articulating questions that would prompt a response about experiences related to this academic goal. When asked if, *academically*, they had experienced the opportunity to “explore the choices others have made and what informed those choices” 70% said they had, and of this 70%, many students gave examples of things like choosing to study or come to class, etc.

Once they had entered their majors, they spoke of the importance of making and evaluating professional choices. In Nursing, for instance, students were taught to make informed treatment decisions, and in Teaching and Learning, students learned to make on-the-spot decisions as they taught in classrooms full of children. There was much less reference to courses that caused them to think of others' choices and their consequences, but these were occasionally mentioned (e.g., Sociology, Developmental Psychology, American Government).

When asked directly, in Interview 6, about others' choices ("Are there any courses in which you've explored the choices others have made and what informed those choices?"), more students were able to articulate learning that moved beyond the personal. Although some said that they had not experienced any classes that did this, others identified a variety of courses (e.g., Indian Studies, Oncology, Human Sexuality, American Government).

### *Understanding World Cultures*

At the point of analyzing the results of the first year's interviews, it became obvious to the study team that they had expectations for students' experiences and understanding of world cultures which did not always mesh either with the language in the Catalog or with the students' actual first year experiences. The conversation among faculty moved almost immediately to speaking of *diversity*, rather than *world cultures*. The team also anticipated student responses that would reflect what they themselves saw as an environment that was homogeneous relative to many other college campuses. This often was reflected in the conversations with students coming to UND from larger urban centers. However, in contrast, many students from small North Dakota and Minnesota

communities expressed perceptions that UND was more diverse than anything they had experienced. This heightened the team's awareness of possible varying interpretations of this goal, at the same time that their interpretations remained more broadly focused on *diversity*. Perhaps because of this, they also remained attuned to student talk related to the importance of diversity of opinions and ideas as it might relate to this goal.

In any case, this GE goal generated a wide range of response. Although almost all students felt they became more open-minded after a year or two of study at UND, some cited the lack of attention given to this goal in classes. A few, however, pointed to particular classes (Introduction to University Life, Drama, Western Civilization, Honors course in Comedy, Pottery, Nutrition) that had been intentional in this area, and most said (in general, unrelated to this goal) that class discussions and discussions with fellow students outside of class exposed them to different thinking and ideas. Outside of class, the International Center was most often cited as a location for repeated exposure to other cultures (in contrast with the other cultural centers which students had little experience with).

Initial reaction to the cultural milieu at UND varied depending upon the hometown of the student. Whereas students who came from more diverse environments found UND and Grand Forks homogeneous, students who came from small towns in North Dakota or Minnesota found it amazingly diverse. (One student was surprised to learn that there are other religions besides Catholic and Lutheran; another said she met an African-American for the first time). Most students seemed to enjoy meeting students with different experiences and backgrounds, but few sought them out.

Although many acknowledged the importance of this goal, they often chastised themselves for not taking advantage of the opportunities on campus for multicultural experiences. "It's out there, I just don't go get it." Others dismissed the possibilities because "this is, after all, Grand Forks." When students felt they had made gains in this area, it was often because of a personal relationship they had developed (a friend from Tanzania, international students on an athletic team, a coach from Brazil). These experiences were most often outside of classes.

Most felt that living and working with others, either here or abroad, was what led to improvement in this area. Some wished that the University was more intentional about this goal. On the other hand, there was often a gap in the depth of experience when instructors were intentional. Multicultural experiences did not necessarily result in a perceived increase in understanding of other cultures. For example, assignments that required students to simply visit cultural centers often did not lead to meaningful engagement. However, students who were required to, for example, interview Native Americans about the Sioux logo described engagement with that issue and its cultural implications.

Many students seemed interested in the opportunity to study abroad, but others seemed to have no interest. Some students spoke about being constrained by their major field of study requirements. Many envied others' study abroad opportunities but didn't see it as something they themselves could have done because their choices were so heavily limited by what their majors demanded in terms of electives and General Education courses, or because they felt they could not afford it. Those who did step out of their culture often spoke of these experiences as being the most eye-opening. The logo issue, 9/11, and the war in Iraq were current events that students mentioned which

drew their attention to this goal. In a few cases, students had become engaged in research projects that caused important learning in this area (e.g. around the Sioux logo, around Islam). Some field experiences offered students exposure to diverse groups such as poor people or those with special needs.

Students generally ranked themselves lower in this skill than in the others. 20% also ranked it as the least important of the General Education goals when asked. Unlike other skills, however, there was no dip in their rankings. In fact their self ranking improved ever so slightly each year.

#### Student Self-Rankings Over Time

Understanding World Cultures	1	1.5	2	2.5	3	3.5	4	4.5	5	average response
Interview 1	2%		32%	1%	31%	5%	18%	1%	11%	3.07
Interview 3	3%		10%	6%	34%	5%	25%	6%	9%	3.2
Interview 5			13%	3%	35%	5%	21%	4%	18%	3.45
Interview 7	5%		10%	5%	30%		25%	5%	20%	3.5

## Other Findings

### *What Else Do Students Tell Us About the General Education Program?*

This section highlights points about the general education program that were not related to *specific* cross disciplinary goals.

Students saw the General Education Program as serving a number of different functions. Early on, students' perceptions of the purposes of General Education varied: some saw no purpose; many believed it was to gain general or basic knowledge; to provide a well-rounded education; others to introduce options for possible majors; to explore interests; to form a foundation for further learning; and finally to develop useful skills. Often students felt that there was more than one reason for the requirements. In their first interview their perceptions were as follows:

- 10% indicated that the goals were valuable to their educations in some way and indicated that they felt “confident” about their skills in the prescribed areas.
- 38% thought the courses would help them become “more well-rounded” as a person and scholar.
- 6% of the student responses indicated that they were there to help them choose a career.
- 6% of student responses indicated that the courses were there so that if they should fail in their major or career, they have a broader base of knowledge to “fall back on.”
- 9% of the students indicated that they thought GE courses were there to help them prepare for their major courses (by developing specific skills or gaining some broad base of knowledge that would help them understand specific areas in major courses).
- A full 30% of student responses registered discontentment with the courses. Students in this group said that they felt the goals were “worthless,” “hoops to jump through” before getting the privilege of taking major classes, or were simply for UND to make more money off of students by requiring that they take more classes.

Students continued to see various purposes for the General Education Program but later those purposes dealt more with choosing and preparing for their major, for their careers, and for acquisition of general knowledge.

The language of general education was initially strange to and unexamined by students. The meanings they brought to the language are not always the same meanings intended by the University.

To students, a more meaningful categorization of classes than GE and non-GE may be “elective” and “required.” Some students, especially those in fairly prescribed majors (such as Nursing, Engineering and Aviation) had trouble identifying GE courses. Instead courses were categorized as required or electives (i.e., some majors prescribe particular General Education courses as pre-requisites for either getting into the major, for major courses, or for graduation). Students in heavily prescriptive majors also felt a greater degree of apathy or even irritation over GE courses and more often would give the advice that others should “get them out of the way” quickly. It seemed that since

these students had less choice, and therefore less opportunity to take courses that might be interesting or valuable personally, they may have had a less enjoyable GE experience.

On the other hand, students recognized the achievement of the cross-disciplinary GE goals in their majors and extracurricular activities at least as much as they did in General Education classes. Starting in year three, students talked about gaining cross-disciplinary General Education skills in their major more than in their General Education courses (although this varied somewhat based on the specific GE goal.) When asked why, they pointed to GE courses as general lecture courses that didn't promote these skills because of structural constraints.

At the same time that they seemed somewhat thoughtful about themselves as related to GE goals, they didn't show thoughtfulness about the General Education *Program*. In years three and four, students saw more value in non-major experiences; they were looking forward and thinking about life after college, and they were connecting General Education goals to their thoughts about prospective careers. They didn't necessarily see the relationship between General Education *courses* and their majors; however, they were seeing connections between the GE *goals* and the majors.

Students came to value General Education more with time. Based on the advice they would give freshmen, it became clear that the choices that were offered in GE were more appreciated later in their education than they were in their first or second years. In interview 4 (at the end of their second year), students indicated that the most important advice they had for others about General Education courses was to "get them out of the way quickly." Twenty percent of the students supplied this answer. In interview 6, a year later, only 14% indicated that they would give this advice, while 32% now said the most important advice would be to "take the classes seriously." In interview 4, only 14% gave this advice. Students also now found taking classes based on personal interest more important; 30% of them gave this advice, while only 19% gave it in interview 4. Several students now stated that they saw the value of General Education courses and goals because of experiences they'd had in major courses, internships, and in life in general.

Courses in the major were seen as more challenging, relevant and attention-grabbing, especially early on in the major, although often there was acknowledgment of the importance of many GE courses later in the major. By their third year, 77% of the students responding said there were clear-cut connections between major courses and GE courses while 23% said there was no evidence of any connection. Most often students noted connections based on skills or on specific knowledge. For example, they saw the writing skills gained in composition as important to their writing work in upper-division, major courses; or, they saw that general level courses like biology had given them useful basic knowledge for upper level courses in their majors like genetics.

Composition courses were mentioned the most often as those that helped students' learning related to GE goals. Sociology, history, psychology, and religion were also frequently mentioned. Also, many non-GE courses were mentioned by students as courses that helped them reach GE goals.

Some students, though not many, noted that different subjects use different modes of thinking, which highlights one of the *disciplinary* rather than *cross-disciplinary* GE goals.

### *What Else Do Students Tell Us About Their Learning?*

Although this study was focused on students' learning related to UND's cross-disciplinary General Education goals, the purpose was also to gain an understanding of the *students'* perceptions of how and where they thought they did this. As a result, the study team members purposefully asked about student learning and experiences in general and encouraged students to describe extracurricular experiences which they felt relevant to their learning. As a result, the team learned about student perceptions that didn't always directly relate to the General Education goals, but which did give insights into their educational experiences, broadly conceived. These insights, though not directly connected to the University's plan for general education, can nonetheless offer food for thought to those who want to know what matters to students, and thus indirectly can help us think about our General Education Program.

#### *Self Knowledge and Growth*

At the University students viewed themselves as having gained the freedom to be "who you are." Not only did they move from holding their parents' ideas to having their own, but there was enough room and diversity to enable them to be themselves, relatively free of what other people might think of them.

Students spoke of increased independence and of figuring out how to negotiate college as two major things learned in their first year. Growth in confidence, after the first year, was quite clear for most of these students. Many saw their friends at home as staying the same while they themselves changed.

Most students mentioned their religions, and for some, coming in contact with other religions, as a powerful learning opportunity. As a result, many worked at bringing clarity to their beliefs. Interview talk about religious beliefs, nonetheless, was most prevalent in interview 1, but discussion of this topic diminished greatly over the course of the study.

#### *Academic Learning*

Many came to UND wanting to improve their communication skills, to improve their thinking skills, or to develop leadership skills, (usually because they saw these as valuable skills for a career).

Students often spoke of getting more serious about their studies after the first or second semesters. In particular many talked of taking their major courses more seriously because these, they say, will form the basis of their jobs.

Although students did not find Introduction to University Life challenging, they did recommend it for the help it gives them in navigating the University and University life. Fifty-eight of 108 students (35%) mentioned Intro to University life in the first interview. Of the 58 students, only three made comments that might be considered negative, such as "there was nothing useful in it;" "it was informative, but a waste of time;" and "I took it because I wanted to improve my grades." Three students felt that all students should take it.

Initially few students considered themselves responsible for their own learning. Especially in the first two years, but even beyond, most students identified the teacher as the most important component in determining the quality of their learning experience and

environment. By the time they entered their majors, however, the subject matter at times determined the efficacy of the class.

By the end of the second year, they were accepting more responsibility for their own learning (“it’s up to me to go to class,” “I need to learn to be a better listener,” etc.) They were becoming more proactive about managing their own education and making choices.

Many students spontaneously attributed positive changes they noticed about themselves to general maturity, rather than to their education. On the other hand, they also pointed to particular academic experiences that stimulated changes.

Research activities – for courses and for extracurricular projects – (at least those worthy of mention in the interviews) were usually engaging and strongly educational.

By year three, most students were strongly committed to a major and happy with their choices of major. Those that weren’t (and 14% did not indicate that they were happy) felt that it was too late to change course now.

### *Financial Realities*

The stark reality of the cost of education usually hit after the first or second year. When this occurred, students sometimes tried to finish as quickly as possible, which often meant going to summer term or not taking anything that might not “count” for one’s major. Sometimes it led to not changing a major, even when a student had decided his or her chosen major was not their top choice. It also led some to work more hours or to take a second job thus leaving less time for academic concerns.

## Recommendations

The goals of General Education describe the expectations we hold in common for the university graduate. At a time when both students and the general public see higher education as more and more work- or career-focused, it is important to reaffirm these common goals and bring new life and meaning to the ways we address them within the University. One way to do this is to make the concept of general education, its purposes and meanings, both more visible and more fully embedded in the culture of UND. Toward this end, the General Education Longitudinal Study Team makes the following recommendations.

The recommendations are in no particular order. Although they are necessarily presented separately, they are in fact interrelated and sometimes overlapping. Each recommendation is followed by a list of possible strategies for addressing it. However, many of these considerations and strategies are only representative – they are not comprehensive – and each may address more than one recommendation.

Since the concept of general education is sometimes confused with a specific set of required courses or course options, lower case is used to indicate the *concept, idea, or philosophy* of general education; upper case is used when referring to specific *programs or courses* (e.g., General Education Program, GER courses).

**Recommendation 1.** Create more opportunities on campus for regular discussion of general education, its meanings, purposes, and methods. In doing so, consider all audiences that could benefit from increased attention to the aims of general education (e.g., students, faculty, potential students, parents, high school teachers, advisors, student services personnel) and plan effective strategies for reaching them.

- Ask all faculty, including those who teach non-GER classes, to address general education goals in syllabi and to include discussion of general education in their classes.
- Advertise general education courses in ways that make them attractive to students.
- Find ways to engage all incoming students in conversation about general education and its purposes. For instance, make discussion of general education a larger part of student orientation.
- Find ways to engage all incoming faculty in conversation about general education and its purposes. Include discussions of some depth in search interviews, faculty orientation, and faculty mentoring programs.
- Make faculty more aware of what goes on in popular introductory GER courses such as Composition, Intro to Psychology, Intro to Sociology, etc.
- Encourage departments to make the language of general education integral to literature that describes their programs and majors, clarifying its relationship to majors and to specific courses.
- Publish and share with incoming students the advice juniors and seniors in the study say they would give in regard to GER courses.

**Recommendation 2.** Ensure that the purposes and goals of general education are integrated throughout the University – not just in courses designated as fulfilling General Education Requirements.

- Create a position, preferably at the Associate Provost level, for administrative coordination and oversight of general education and its assessment.
- Ask each academic department to designate a General Education resource person who will serve as a liaison between the department and the Associate Provost and General Education Committee.
- Encourage departments to include general education goals within their own goals for the major as appropriate, and to assess achievement of those goals at the time of graduation.
- Instead of calling the goals "General Education goals," re-name them "UND's educational goals."

**Recommendation 3.** As changes in the General Education Program are considered, draw on the results of this study to refine the present goals.

- Revise the language of the General Education goals to make them more meaningful to both students and faculty.
- Include both faculty and students in any revision of GE goal language.
- Assure faculty and student ownership of the General Education Program through regular and continued dialogue, such as recommended in #1 above.

**Recommendation 4.** Re-examine and articulate more carefully the goal of "World Cultures." Clarify its meaning and develop strategies for embedding meaningful experiences related to it into students' education.

- Identify successful educational experiences and build on the strategies which have made them so.
- Better utilize funds already allocated for work in this area.
- Regularly provide rationale for the importance of this goal to students.

**Recommendation 5.** Although some General Education courses clearly play a foundational or pre-requisite role for certain major courses, others may be especially valuable when linked with major courses or taken later in students' academic careers. For this reason, encourage students to integrate their General Education Requirements "vertically" through their course of study rather than layering them "horizontally."

- Consider wider use of capstone courses in the major as a way of integrating general education goals in the senior year.
- Explore the use of linked courses around General Education goals.

**Recommendation 6.** Establish new ways to increase student-faculty interaction and mutual understanding.

- Assure that all incoming students participate in one small enrollment class during their first semester at UND.
- Find ways of using more faculty in first semester small courses. (Compensation and recognition will be necessary.)
- Educate faculty about the nature of students' experience in college, the difficulties in transition to the university life both socially and academically.

**Recommendation 7.** Provide faculty development opportunities focused on designing courses to meet general education goals. Reinforce and support pedagogy that students say work for them (e.g. smaller class sizes, limited and effective use of PowerPoint, project work, mitigated use of straight lecture, opportunity for discussion and interaction, presentations and other comprehensive projects, experiential learning opportunities, opportunities to see topics from varying perspectives, etc. ).

**Recommendation 8.** Re-examine the structure of advising with an eye to making it more developmental and more intentional in reinforcing the common purposes and goals of a university education.

- Urge advisors and faculty to take advantage of advisor training.
- Recognize the importance of this faculty responsibility within the university structure and in decisions regarding retention, promotion and tenure.

**Recommendation 9.** Develop and implement a comprehensive and continuous assessment plan that documents student learning as it relates to general education purposes and goals. It should include both direct and indirect assessment of student learning.

- As the language of general education goals is developed or changed, simultaneously consider meaningful assessment strategies.
- Consider all possible locations for assessment: GER courses, the major, and at a university-wide level.

**Recommendation 10.** Fund initiatives that support the above recommendations and strategies.

# APPENDICES

## Appendix A

### CROSS-DISCIPLINARY ABILITIES/GOALS

(Note: A General Education Task Force was formed in 1994 to review the General Education Program and recommend appropriate changes. In addition to adjusting the General Education requirements to meet the ND University System mandate, the Task Force made a number of recommendations, which included a more succinct description of the General Education goals. These goals were approved by the University Senate in 1999 and appear in the 2003-2005 Academic Catalog. Although they are similar to the cross-disciplinary goals listed in the 2001-2003 Catalog, they are not identical. Because this study began in 2000, it is based on the cross-disciplinary goals listed in catalogs prior to 2003.)

#### 2001-2003 Catalog Copy

##### **A. Critical Thinking**

Critical thinking can provide students confidence and assurance to make informed decisions. The processes of dissecting and reassembling ideas can be personally liberating and serve as a powerful means for developing one or more of the following abilities:

- defining a problem and selecting pertinent information for its solution;
- recognizing stated and unstated assumptions in order to formulate useful hypotheses;
- understanding methods of inquiry as they are used in specific disciplines;
- using imagination and insight to expand an exploratory process;
- questioning what one has been told; and
- relating skills to thought and action.

##### **B. Communication**

The ability to communicate is the ability to present information, ideas, feelings, and values, in such a way that people may be able to understand one another. Students should learn how to communicate effectively in as many ways as possible.

In order to communicate one must know languages. Each culture and each discipline develops its own language, with unique symbols, terminology, and rules for using its symbols. Students must advance their skills in the use of English, develop abilities to use other languages, and become acquainted with the specialized languages which exist in many areas — mathematics, computer science, graphics, the fine and performing arts, and others.

Communication also depends on experience in expressing oneself through language and experience in interpreting and appreciating what other people are trying to say. General education at the University should provide students with numerous opportunities to express their thoughts, feelings and values through language of all kinds, and to learn how well others have been able to understand them. Communication skills may be taught both by courses specifically emphasizing written and oral expression and interpretation and by courses emphasizing other aspects of the arts, sciences, and humanities.

### **C. Creative Thinking**

While it is unrealistic to expect every student to bring into being original work of extraordinary merit, every person ought to be given opportunities and incentives to think creatively and to attempt creative work. Creative thinking can be encouraged by promoting students' ability and effort:

- to imagine alternatives to accepted ways of solving problems or formulating questions;
- to change categories and comprehend analogies;
- to generate new ideas; and
- to add details, transform, or extend ideas.

Characteristics of a teaching environment that fosters creativity include:

1. encouragement of risk taking;
2. use of a rich variety of stimuli;
3. support for curiosity, imagination and experimentation;
4. opportunities for self-expression; and
5. tolerance for ambiguity and complexity.

### **D. Recognizing Relationships**

Focusing upon relationships among parts — emphasizes connectedness and interdependency.

Learning to see connections is vital to general education. This process emphasizes:

1. inter-relatedness; conceptualizing links between events, entities and ideas and the larger context in which they occur;
2. inter-dependency: conceptualizing mutual dependency or reciprocity of events, entities, or ideas — seeing that the impact on one part has ramifications for the other parts and for the whole;
3. holism: conceptualizing a totality rather than considering discrete or individual elements that only partially depict that totality; and
4. structure: conceptualizing the underlying and relatively stable relationships that exist among events, entities and ideas which unify any totality.

### **E. Recognizing and Evaluating Choices**

Education concerning values is important in general education — not seeking one right way to behave, but recognizing that choices cannot be avoided. Students should be aware of how many choices they make, how these choices are based on values, and how to make informed choices.

General education courses should deal with at least some of the following issues:

1. how human choices influence the results and dominant values of all disciplines;
2. how these choices have been made in the past;
3. how some of these choices might otherwise have been made; and
4. how choices are made, evaluated, and used to explain phenomena.

## **F. World Cultures**

The University of North Dakota has established a World Cultures course requirement to enable students to:

1. gain an awareness of cultures geographically or historically different from their own;
2. gain an awareness of a language other than their native language;
3. foster a spirit of international understanding;
4. understand cultural systems other than their own;
5. address multicultural issues, or
6. learn about race, gender, or ethnicity other than their own.

## 2003-2005 Catalog Copy

### THE PURPOSES OF A UNIVERSITY EDUCATION

#### UND's Philosophy of General Education

Before consulting the University-wide graduation requirements, students are urged to read this statement of philosophy prepared by UND's General Education Requirements Committee. One aspect of the University-wide requirements for a baccalaureate degree is completion of UND's general education requirements. This statement places the general education requirements into a broader context and indicates the end results which should be striven for in undertaking a university education.

Students are expected to explore a range of content areas and to develop broad learning abilities as they complete their general education requirements at UND. Students' general education courses should anchor their future university work and provide a model for life-long learning.

By the time students complete their general education courses, they should be able to:

- communicate effectively, both orally and in writing;
- think critically and creatively;
- make informed choices;
- understand how conclusions are reached in the natural sciences, the social sciences, and the arts and humanities;
- acquire knowledge over a broad spectrum of subject areas;
- develop some familiarity with cultures other than their own.

In choosing general education courses, students are encouraged to venture into areas that are new to them. By choosing courses that complement each other, students can reinforce and enhance the knowledge and abilities acquired in each course, as well as develop the ability to recognize relationships.

Appendix C  
INTERVIEW QUESTIONS

Questions for Interview #1 (fall semester)

1. Where are you from? How would you describe your cultural background?
2. Tell me anything else about yourself that you think I should know or that you would like me to know.
3. Is there anything you want to know about this project or about me?
4. Tell me about your decision to attend college. Why and how did you make the decision? And how and why did you decide to come to UND in particular?
5. Can you remember some experiences from before college (in and out of school) that made a difference in the way you think about things? (That changed your mind or perspective or outlook on life or certain issues in your life?)
6. Can you think of a class in high school that made you 'think' more than others? (Where questions came to you after you were out of class or even later in the year?) Tell me about it.
7. What specific characteristics/kinds of skills or knowledge do you hope to strengthen while you are in college? Why?
8. What is your understanding of why you are taking general education courses?
9. How would you rate your abilities in each of the following areas (on a scale of 1-5)?
  - critical thinking
  - communication
  - creative thinking
  - recognizing relationships among ideas/events, etc.
  - recognizing and evaluating choices and their consequences
  - understanding of other cultures
10. Tell me about the courses you're taking. Do these courses challenge you in some way? If so, how? If not, why do you think you're not challenged?
11. Which general education courses do you plan to take next? Why?
12. What's your most likely area of study for a major? Why?

Questions for Interview #2 (spring semester)

1. Thinking of your experiences so far at UND, what are some things you have learned about yourself? About the world around you? About life in general? What do you think may have contributed to this learning?
2. *If done early in the semester:*
  - When you went home, do you think your family and friends noticed any changes in your thinking, attitudes, acquired knowledge, etc.? If so, what do you think they noticed?
3. Thinking of your experiences so far at UND, are there any that have helped you become a better writer or speaker? Any that you believe have increased your ability to think creatively? Any that you believe have increased your ability to think critically? That have given you some understanding of other cultures? That have increased your ability to see connections between ideas, concepts, events, etc.? Any that have helped you better evaluate

your own and others' choices and their consequences? Describe the experiences in some detail.

4. Have living and studying at UND introduced you to any new ideas that stand out as being very different from those you were exposed to at home or in your home town? What are the new ideas and in what context were you introduced to them? What was your response?
5. Has your experience at the university increased your confidence in your knowledge and/or strengthened your convictions or opinions about anything? If so, of what beliefs or knowledge are you more confident and what was it that led to your added confidence or conviction?
6. From your perspective, do you think you've changed at all as a (student, learner, person) during this first year of your college life?
7. Pick one of these general education goals that seems important to you and let's talk about it. Why is it important? Has anything in your college experience so far -- both inside the classroom and outside -- helped you make some progress toward that goal? If so, what?
8. Is there an item in your portfolio of which you are particularly proud or that has given you a real sense of accomplishment? *When there is such an item:* What makes this item special? What motivated you in your efforts to produce it? Did working on this item have an effect on your views of the world around you? Are there any general education goals that you think producing this item addressed?
9. What courses are you taking this semester? What courses are you thinking about for next fall?
10. *If done in the last half of the semester:*
  - If you could have done something different this year, what would it have been?
  - What are you looking forward to most in the next year?
  - When you go home, do you think your family and friends will notice any changes in your thinking, attitudes, acquired knowledge, etc.? If so what do you think they will notice?

### Questions for Interview #3 (fall semester)

1. What did you do over the summer? Do you think your experiences during your first year at UND changed the experiences of being home, working, etc.? If so, in what ways do you think they changed, and why do you think the experiences were different? (Did your interactions with your friends and/or with your family change?)
2. Did you find a use for any of your new knowledge or understanding from last year over the summer, or in something this semester? If so, what was it, and how did you use it?
3. How did coming back to UND feel after the summer? What did you find yourself looking forward to? What seemed different? Is there anything you wished were different, but wasn't? Looking back at your first semester last year, how do you think *you* have changed? What advice would you give a freshman just starting at UND this year?
4. What courses are you currently taking? How are they going? What influenced your choice of classes? (How did you decide?)
5. Do you approach learning and courses any differently this fall than last year? Would you describe yourself any differently as a learner? As a thinker? Do you think there will be any new challenges for you this year?
6. Are there any educational experiences that your friends or room/house mates have had that you wish you could have had? If so, what are they and why do you wish you had had them?

7. Can you think of a time when a difference of opinion, background, or experience surfaced in a class? What happened? How did you respond to it? Would you have responded differently today? If so, how?

8. I asked you this last year, but I want to ask you about it again this fall: How would you rate your abilities in each of the following areas (on a scale of 1-5)?

critical thinking

communication

creative thinking

recognizing relationships among ideas/events, etc.

recognizing and evaluating choices and their consequences

understanding of other cultures

Do you think you've gotten better at any of them over time? If so, do you have any sense about why you think you've gotten better? Are there any of these that you find yourself making *less* progress on than the others? Why do you suppose that is?

9. According to the UND catalogue, one of the goals of a university education is to prepare students to "think creatively" about things that matter. What, if anything, does "thinking creatively" mean to you?

[if they offer a definition:] Have you had any experiences at UND - either in classes or elsewhere - which required you to do that kind of thinking?

[if they don't offer a useful definition:] What if we think of it this way: Have you had any experiences at UND - either in classes or elsewhere - which required you to "think outside the box," to develop new ideas and creative solutions to problems?

10. What about your portfolio? How are you keeping up with it? What have you been putting in it? Have you put anything new in your portfolio recently? Tell me about it. Are there any things that you are consciously *not* putting in your portfolio? What and why?

11. Is there anything else you'd like to tell me about?

#### Questions for Interview #4 (spring semester)

1. Have you decided on a major or have you made any changes in your career plans? If so, please describe the process by which you arrived at the decision. If not, have you been doing any thinking about a major? Can you share some of that thinking? (Have your general education courses influenced your choices and thinking in any way?)

2. Pick one of these general education goals that seems important to you. Tell me why you think it's important. Last year, I asked you to do the same thing, and you chose \_\_\_\_\_.

[If the goals are the same: So \_\_\_\_\_ continues to be important. From your perspective is there anything in your college experience that is hindering or helping your progress towards reaching this. If so, what? What about other goals?

[If the goals are different: Tell me about why this has changed. Has anything in your college experience so far hindered or helped your progress towards reaching either one of these goal(s)? If so, what?

3. Is there an item in your portfolio of which you are particularly proud or that has given you a real sense of accomplishment? What motivated you in your efforts to produce it? What did you learn from doing it?

4. Have you had any experiences outside the classroom which have influenced your understanding of other cultures. So far this year (or last) have you visited any of the cultural centers on campus, such as the International Centre, the Era Bell Thompson Cultural Center, the Native American Program Center, and the Women's Center? Have you participated in any related events, such as the Feast of Nations, the Conference on Logs and Nicknames, or the Pow-wow [add others that might be fresh in the student's mind]? What motivated the you to attend? What was your experience like?
5. At this point in your education, what advice would you give to next year's freshmen about General Education courses?
6. How do you evaluate the courses you've had? What makes a course good or bad? Describe what teachers do in those classes.
7. Think back over the decisions you've made so far in college. Which do you think are your best decisions? What would you change, if you could do it all over again?
8. What are you looking forward to the least next year? What are you looking forward to most?
9. What are your plans for the summer? What influenced those plans? Are there any connections between what you're planning to do and your UND experience? If so, what are they?
10. Is there anything else you'd like to tell me about?

Questions for Interview #5 (fall semester)

1. What did you do over the summer? How did starting the fall semester feel after the summer? What did you find yourself looking forward to? What seemed different?
  2. Where are you in your progress towards completing your General Education courses?
  3. What are your current thoughts about a major? Have you considered a minor? (If appropriate) What led to your decision to study \_\_\_\_\_? How certain are you about your decision?
- As you think about your next years in college, what courses and plans are you thinking about?
4. What courses are you currently taking? Are they courses in your major? Do you approach learning any differently in your major courses than you do in your other courses?
  5. Did you bring your portfolio? Are there relevant learning experiences that you couldn't put into your portfolio because they couldn't physically fit in it?
  6. I've asked you this before, but here it is again: How would you now rate your abilities in each of the following areas (on a scale of 1-5)?
    - critical thinking
    - communication
    - creative thinking
    - recognizing relationships among ideas/events, etc.
    - recognizing and evaluating choices and their consequences
    - understanding of other cultures

Do you think you've gotten better at any of them over time? If so, do you have any sense about why you think you've gotten better? Are there any of these that you find yourself making *less* progress on than the others? Why do you suppose that is?

*[Try to make some time for the students to think about the next 4 questions before you ask them.]*

7. Describe an occasion on which you have found yourself questioning what you have been told (by a book/textbook, by your instructors, or by others you have generally believed to be a source of authority). What made you question the claims or that authority? What did you do with your own questioning? (Did you do some research? Did you seek out other opinions?)
8. Can you think of a time, either in your classes or in extra-curricular activities, when you needed to deal with a problem and find pertinent information to help solve that problem? Please describe the occasion.
9. Have you had opportunity in any of your classes to think or act “outside of the box” or in new and original ways? Have you been encouraged or required to generate any creative ideas in your courses? What about in other aspects of your life as a student? Please describe your examples in some detail.
10. Since you’ve been at UND, can you point to anything that you’ve learned about race, gender, culture, or ethnicity?
11. Do you think there will be any new challenges for you this year? Can you think of any particular experiences or courses that have prepared you for these challenges?
12. Is there anything else you’d like to tell me about?

Questions for Interview #6 (spring semester)

1. You’re a little further into your major now. Can you tell me how it’s going? What are the high points? The low points? Are you still satisfied with your choice of major?
2. It is sometimes said that each field of study develops its own language, with unique symbols, terminology and rules for using its symbols. Do you believe that you are learning a language that is peculiar to your major? Can you give me some examples of it?
3. Where in your life at UND do you feel you’ve been given the most opportunity to express your thoughts, feelings and values and to learn how well others have been able to understand them?
4. Describe any connections you have noticed between what you are studying in your major and what you are studying in your General Education courses. Are there connections between what you are learning in courses and your life otherwise at UND?
5. Are there any courses in which you’ve explored the choices others have made and what informed those choices? (If necessary, prompt by suggesting certain kinds of course, such as history, political science, literature, health care, scientific inquiry, etc.)
6. Take a minute or two to look through your portfolio. Pull something(s) from it that shows change over your years at UND. Describe what it is that prompted you to choose what you did.
7. Pick one of these general education goals that seems important to you. Tell me why you think it’s important. I asked you to do the same thing the previous two years, and you chose \_\_\_\_\_ and \_\_\_\_\_, but your choice might be different this year.

[If the goals are the same: So \_\_\_\_\_ continues to be important. From your perspective is there anything in your college experience that is hindering or helping your progress towards reaching this. If so, what? What about other goals?

[If the goals are different: Tell me about why this has changed. Has anything in your college experience so far hindered or helped your progress towards reaching either one of these goal(s)? If so, what?

8. At this point in your education, what advice would you give to next year's freshmen about General Education courses?
9. Think back over the decisions you've made so far in college. Which do you think are your best decisions? What would you change, if you could do it all over again? What values influence the choices you've made? Do you make choices any differently than you did when you started college?
10. Looking back at your first three years at UND, how do you think you have changed since high school?
11. What are your plans for the summer? What influenced those plans? Are there any connections between what you're planning to do and your UND experience? If so, what are they?
12. Is there anything else you'd like to tell me about?

Questions for Interview #7 (fall semester)

1. What did you do over the summer? Compare this past summer with previous summers. How were they the same? How different?
2. Which courses are you taking? Can you describe any way in which the courses are asking you to or enabling you to perform/grow? (prompts related to GE)
3. Did you bring your portfolio? What have you been putting in it? What kinds of things that you've done aren't represented in your portfolio? Choose an older piece. If you were to be given this assignment today, how would you have approached it differently? How would the doing of it be different? How would the product itself be different?
4. Have you taken a course or worked on a project that has enriched you as a person (aside from career related issues)? Tell me about that.
5. Has there been a course or other learning experience that's been a turning point for you in college? Tell us about it. What made it so important to you?
6. What do you do, other than going to classes, that enhances your education? How much time do you spend on each of these activities? Do you think this has changed over your years here at UND? How?
7. Again – how would you rate your abilities in each of the following areas (on a scale of 1-5)?  
 Critical thinking  
 Communication  
 Creative thinking  
 Recognizing relationships among ideas/events, etc.  
 Recognizing and evaluating choices and their consequences  
 Understanding of other cultures  
 Do you think you've gotten better at any of them over time? If so, do you have any sense about why you think you've gotten better? Are there any of these that you find yourself making *less* progress on than the others? Why do you suppose that is?
8. Regarding the GE goal about recognizing relationships: We're interested in how you think about this goal in academic terms. Have you had any specific academic experiences that have encouraged you to recognize connections among ideas, courses, etc. that you didn't originally see as related? Tell us about that.
9. The GE system is currently set up so you have to take courses in various categories (humanities, MST, etc.). Do you think that is a good way to organize it? Why/not? Do you

have any recommendations for the University regarding the GE program? Regarding your major?

10. If you could design your final semester in college yourself, what would it include? (free of major and/or GE requirements)?

#### Questions for Interview #8 (spring semester)

1. Which courses are you taking? Can you describe any way in which the courses are asking you/to or enabling you to perform/grow? (prompts related to GE)
2. Did you bring your portfolio? What have you been putting in it? Is there anything you're purposefully not including in the portfolio? Is there anything you expect to keep well beyond college? If so, why? If not, why not?
3. Consider the GE goals. Which will be most important as you move on? Which will be the least important? Of all the goals, which do you see yourself improving the most in over your years at UND?
4. We asked you this last year, but here it is again. Describe any connections you have noticed between what you are studying in your major and what you are studying or have studied in your General Education courses. Are there connections between what you are learning in courses and your current and/or future life?
5. One of the assumptions of a university education is that you will gain an awareness and understanding of cultures other than your own. Did you experience that? If so, how? If not, what do you think got in the way of doing so?
6. We've noticed that examples students give, when asked about the "making choices" GE goal, are often personal rather than academic. Can you see any ways that this applies to the academic side of your education?
7. Think of a professor who has strongly influenced you and your education. Describe how he/she has influenced you.
8. What is the best course you have taken outside your major? Why do you rate this course highly? Did that course end up contributing to any of the GE goals?
9. Consider your biggest decisions in the past four years – what would you change? Why? (Or why not, if no changes are suggested)
10. Given what you now know about the resources and possibilities that exist on this campus, are there opportunities you wished you had explored (or would like to explore in the future)?
11. At this point in your education, what advice would you give to next year's freshmen about General Education courses.
12. Think of yourself the day you came to UND and compare who you were then to who you are now. To what would you most attribute the changes?

#### Questions for Interview #9 (fall semester)

1. What did you do over the summer? How did it compare to other summers, especially your first summer after starting at UND?
2. You're now in your 5<sup>th</sup> year. Tell me your story, as you see it now, of how you came to be on the 5-year plan. How do you think about that now?
3. What classes are you taking? How do you make your choices? Have any General Education courses that you took influenced those choices? If so, how?

4. Did you bring your portfolio? Thinking back over all the work you've done at UND, what best demonstrates one or more of the abilities identified in the GE goals?
5. Before asking the next series of questions, have students circle the General Education courses s/he took from a copy of the list in the Catalog. What value, if any, do you see yourself as having gained from these courses? Evaluate the quality of the learning experience in these courses and how it could be improved.
6. Each year I've asked you to rate your abilities in each of the following General Education goals on a scale of 1-5. First could you do that again for me?
  - critical thinking
  - communication
  - creative thinking
  - recognizing relationships among ideas/events, etc.
  - recognizing and evaluating choices and their consequences
  - understanding of other cultures
7. Thanks. Now let me tell you how you've rated yourself over time: Year 1 \_\_\_\_\_, Year 2 \_\_\_\_\_, Year 3 \_\_\_\_\_, Year 4 \_\_\_\_\_. Can you tell me any thoughts you have when you see this four-year pattern?
8. What role did General Education courses play in moving you toward each of these goals? What role did your major play in moving you towards each of these goals?
9. What kinds of uses of technology have you encountered in your General Education courses. Based on your experience, has it been helpful to your learning? Are there ways in which technology has not been helpful? Can you imagine other ways it could be helpful or be a hindrance?
10. During the last few years, you've been really immersed in study and learning. Do you see yourself as continuing to be a learner even after college? How? Can you give me examples of what kind of learning you might pursue and how you might do it?
11. During the time that you've been at UND, lots of tumultuous events have occurred. Has your education influenced your responses to any of them? Explain.
12. You're getting near the end [or are at the end] of your degree program. At this point, think of what you have obtained at U ND as tools in a toolbox. Which of these tools do you think will be useful to you as you approach the challenges you see ahead? Why will they be useful?
13. Anything else you want to tell me?

#### Questions for Interview #10 (spring semester)

1. You have been in school for five years now. What have you gained in this 5<sup>th</sup> year? Can you find something in your portfolio that shows those gains?
2. What courses are you taking this semester? Do you consider any to be electives? How did you become interested in taking those particular courses? Did any of those interests stem back to courses you took for General Education?
3. Students in this study have made a lot of positive comments about experiences at UND that they perceive as relevant to real world professional work. But you've also taken a lot of classes that aren't necessarily applicable to your future profession. How do you feel about

those courses that aren't clearly career-related? Which ones do you value? If you believe them to be useful now, have you always thought that?

4. I've asked you this before, but here it is again. Consider the GE goals. Which will be most important as you move on? Which will be the least important? Of all these abilities, in which do you see yourself as improving the most over your years at UND?
5. Choose one of the GE goals other than Communication and try to trace how it has developed across your years at UND. Begin with where you first remember encountering the skill in college.
6. What isn't covered in General Education that ought to be? [Probe: Some universities have goals in the following areas: ethics, wellness, mathematical thinking, research ability, technological competence, physical fitness, an understanding of the past, etc.]
7. Do you feel you are now ready to be able to move into the real world and think critically? Communicate effectively? Recognize relationships among ideas/events, etc.? Think creatively? Recognize and evaluate choices and their consequences? Understand other cultures? Why or why not? Are there any ways in which you feel unprepared educationally or personally as you face the future?
8. In this study, we've focused on those six abilities that serve as the General Education goals. What about breadth? Do you believe that the courses you took gave you a breadth of knowledge that will serve you well in the future?
9. Is there something beyond your major that you would like to continue learning about after you leave UND? What and why?
10. What kinds of issues do you think you might confront as a citizen (of your home town, your state, the U.S., and the world) over the next few years, and how do you think your education at UND might shape your response to these issues?
11. What are your plans for the summer and beyond?
12. Anything else you'd like to tell me.