Degree Audit Reporting System (DARS): What Works and What is Needed

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Contents

Abstract

This is an empirical study thesis. The Degree Audit Reporting System (DARS) used by the state colleges and universities in Minnesota has many deficiencies that hinder the students and advisors in the registration process. The revisions proposed will present a more effective and efficient system.

I. Introduction

Improvements to existing college-level automated academic record systems are essential in order to increase the effectiveness of the system and efficiency during registration. Automated academic records are used by students and advisors to aid the student in determining which classes are still needed in order to graduate. Minnesota State Colleges and Universities (MnSCU) use a Degree Audit Reporting System (DARS) to provide the students with a list of the classes they have and have not yet taken. However, DARS has numerous complications such as poor user readability and a confusing format that makes it difficult for students to determine the courses needed to graduate. Therefore, improvements to DARS need to be implemented to better aid the students and advisors during registration and advising.

To fully identify the requirements needed in an automated academic record system, one must observe the systems that are already in use. Linda Carswell, Pete Thomas, Marian Petre, Blaine Price, and Mike Richards (2000) published the article 'Understanding the 'Electronic' Student: Analysis of Functional Requirements for Distributed Education' in which they determine the requirements requested by distance education students such as timely updates and electronic copies of forms completed by the students in the event of accidental misplacement by the university. They use these requirements as the tools in the academic record system developed for Open University, located in the United Kingdom.

Mahyar Izadi, Ali Kashef, and Ronald Stadt (1996) argue in their article, 'Quality in Higher Education: Lessons Learned from the Baldrige Award, Deming Prize, and ISO 9000 Registration' that the techniques university programs implement to benefit students should be based on Total Quality Management (TQM) concepts. A large focus of TQM is exceptional customer service. The article recommends the TQM concept in the design of a student registration system in providing what the user desires in the system.

Due to automated academic record systems still being a fairly new development, only a handful of studies have been conducted on how to create the systems, let alone how to improve them. There is little data based on what students would like in an academic record system, and what would benefit advisors when assisting the students.

This study conducted at Bemidji State University provided students and advisors the opportunity to express feedback on the current DARS system and what specific improvements they would like to see. The purpose of this study was to find revisions that can be made to DARS in order to more effectively aid students in the registration process. These improvements were derived from questionnaires that were distributed to the students and advisors at Bemidji State University.

II. Current System

The current DARS system that is used by MnSCU is shown in Figure 1. This anonymous student is a Business Administration major with a Finance emphasis from Bemidji State University. The system shows goal areas in liberal education courses that the student has and has not yet completed as well as what classes are still needed for the Finance emphasis. These are shown through green checkmarks and red X's, indicating complete and incomplete categories, respectively.

At the top of the DARS page is a chart displaying the student's credits and GPA as well as a list of the student's ACT scores. The system then states the requirements for graduation and lists the different goal areas for the liberal education courses. If a goal area has not yet been completed, the system provides a list of the courses the student must choose from. The same is done for the Business Administration degree, with required basic core courses, additional required courses and required electives the student must take to complete the degree.
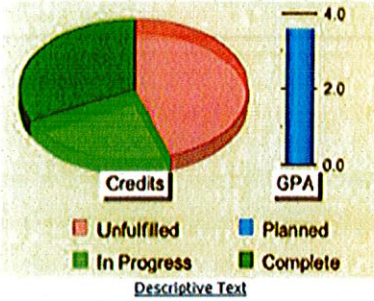
PREPARED: 04/15/15 - 10:57

PROGRAM CODE: BS BUADFIN

FOR ADVISING PURPOSES

BEMIDJI STATE UNIVERSITY
BUSINESS ADMINISTRATION, B.S.
FINANCE EMPHASIS

Audit

Credits   GPA

- Unfulfilled   Planned
- In Progress   Complete

Descriptive Text

Categories

Credits   GPA

Descriptive Text

▾ ▾ Open All Sections ▶ ▶ Close All Sections   🖶 Printer Friendly

```
Catalog: 2014-15 CATALOG
Advisor: ██████████████

Classification: SO

----------------------------------------------------------------

Test Scores:
ACT Composite Score: 20
     Date taken: 04/01/2012
ACT Math Score: 24
     Date taken: 04/01/2012
ACT English Score: 19
     Date taken: 04/01/2012
ACT Reading Score: 22
     Date taken: 04/01/2012
ACT Science Reasoning Score: 18
     Date taken: 04/01/2012
Accuplacer Reading Comprehension Score: 74
     Date taken: 01/26/2011
Accuplacer Reading Comprehension Score: 73
     Date taken: 01/05/2011
Accuplacer Elementary Algebra Score: 83
     Date taken: 01/05/2011
Accuplacer College Level Math Score: 20
     Date taken: 01/05/2011
Intermediate Algebra (local test A) Score: 15
     Date taken: 01/05/2011

Program(s): EST

----------------------------------------------------------------

---- AT LEAST ONE REQUIREMENT NOT COMPLETED ----
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▾

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For assistance with your Degree Audit, please use the
links below:

- **How to read your Interactive Degree Audit**

- **Interactive Degree Audit Tutorial**

- **DARS Symbol Legend**

Questions regarding your DARS report should be directed to academic advisor or records@bemidjistate.edu

- **Look Up Your Advisor's Contact Information**

▼ Transcripts have been received from the following:

* University of North Dakota
  Abbreviated on Report as: UND

▼ TRANSFER SUMMARY
TRANSFER CREDITS ACCEPTED BY BSU

EARNED: 14.00 CREDITS

▼ Student must complete 67% of attempted credits to remain
in good standing. Credits transferred to BSU are
included in this calculation. Please review your academic
record to calculate your percent completion rate.

▼ ✗

REQUIREMENTS FOR GRADUATION
Must complete a minimum of 120 semester credits, including
transfer work, and earn a 2.00 overall GPA. Not to include
courses numbered below 0900, but may include up to 4
credits of 0900.

EARNED: 39.00 CREDITS
IP 27.00 CREDITS
--> NEED: 54.00 CREDITS

▼ ✔ OVERALL GPA REQUIREMENT for GRADUATION
MUST HAVE 2.0 GPA OF BSU CREDITS
DARS GPA may be different than transcript GPA due to
a repeat issued on an in-progress class. The transcript
GPA is the official GPA.

EARNED: 3.60 GPA

▼ ✗

STUDENTS MUST COMPLETE 40 SEMESTER CREDITS OF
COURSES TAKEN AT THE 3-4000 LEVEL

IP 9.00 CREDITS
--> NEED: 31.00 CREDITS

▼ ✔ TRANSFER STUDENTS MUST TAKE AT LEAST 30 CREDITS FROM
    BEMIDJI STATE UNIVERSITY

    EARNED: 25.00 CREDITS
      IP 27.00 CREDITS

▼
          Complete Goal Areas 1-11 with a minimum of 42 credits.
          If the areas are completed with less than 42 credits,
          add'l liberal education credits must be taken.
          At least 40 of the 42 credits must be in Goal Areas 1-1C

LIBERAL EDUCATION TOTAL CREDIT REQUIREMENT

    EARNED: 28.00 CREDITS
      IP 12.00 CREDITS
  --> NEED: 2.00 CREDITS

▼ ✔ **GOAL AREA 1: COMMUNICATION**

    EARNED: 6.00 CREDITS 2 COURSES

F 13 ENGL1151	3.0 TA	College Composition I
		UND : ENGL110
S 14 ENGL2152	3.0 A	Argument and Exposition

▼
      GOAL AREA 2: CRITICAL THINKING
        Requires completion of the rest of the Liberal
        Education Program

▼ ✔ **GOAL AREA 3: NATURAL SCIENCE**

    EARNED: 7.00 CREDITS 2 COURSES

F 14 SCI 1110	4.0 B	Physical Science I
S 14 SCI 2200	3.0 A	Meteorology

▼ ✔ **GOAL AREA 4: MATHEMATICAL/LOGICAL REASONING**

    EARNED: 3.00 CREDITS

F 13 ELECT001	3.0 TB	College Algebra
		UND : MATH103
		>>MATCHED AS: GOAL 4

▼ ✔ **GOAL AREA 5: HISTORY AND THE SOCIAL AND BEHAVIORAL
    SCIENCES**

    EARNED: 6.00 CREDITS 2 COURSES

F 13 ELECT002	3.0 TC	American Gov I
		UND : POLS115
		>>MATCHED AS: GOAL 5
S 14 SOC 1104	3.0 B	Society & Social Issues

▼ ✘ **GOAL AREA 6: HUMANITIES AND THE ARTS**

EARNED: 3.00 CREDITS 1 COURSE
--> NEED: 2.00 CREDITS 1 COURSE

- 1) SELECT 2 OF THE FOLLOWING COURSES:
    3.00 CREDITS ADDED 1 COURSE TAKEN
    F 13 SPCM1100   3.0 TA   Fundamentals of Public Speak
                                       UND   : COMM110
    COURSE LIST: ARTH2551,2552 ENGL2190,2250,2340,2350,
    ENGL2355,2357,2358,2359,2410 HUM 1100,2160
    INST3888(F 15 OR AFTER) INTL2200 MUS 1100,1120,
    MUS 1130(THROUGH SS15),2110,2710,3120,3130,3801,
    MUS 3802,4710 OJIB1100,3213 PHIL1100,2220,2240,
    PHIL2250,2260,2290(F 15),2310,2330,3310,3320,3330,
    PHIL3340,3360,3390 REL 2000(THROUGH SS15) SPCM2100,
    SPCM2800 TADD1440,3450,3648,3649,3748,3749
    ****1954 OR 2954

▼ ✔ GOAL AREA 7: HUMAN DIVERSITY

EARNED: 1 COURSE
IP   2.00 CREDITS

    S 15 SPCM1090   2.0 Z   Interpersonal Comm

▼ ✔ GOAL AREA 8: GLOBAL PERSPECTIVE

EARNED: 3.00 CREDITS 1 COURSE

    F 14 POL 1400   3.0 A   Intr Comparative Politics

▼ ✔ GOAL AREA 9: ETHICAL AND CIVIC RESPONSIBILITY

EARNED: 3.00 CREDITS 1 COURSE

    F 13 ELECT002   3.0 TC   American Gov I
                                      UND   : POLS115
                                      >>MATCHED AS: GOAL 9

▼ ✔

GOAL AREA 10: PEOPLE AND THE ENVIRONMENT

EARNED: 1 COURSE
IP   3.00 CREDITS

    F 15 ENVR2925   3.0 Z   The Global Pollution Pers

▼ ✔ GOAL AREA 11: PERFORMANCE AND PARTICIPATION

EARNED: 1 COURSE
IP   1.00 CREDIT

    S 15 PHED1430   1.0 Z   Archery

▼   THESE COURSES ARE OVER SATISFIED COURSES FROM THE LIB ED
    REQUIREMENTS

    S 15 ECON2000   3.0 Z   Markets & Resource Alloc

S 15 ECON2100   3.0 Z   RP Macroecon & Bus Cycle

Students majoring in Business Administration are
advised to complete at least one course in
Psychology, Sociology, or Anthropology as part of
their liberal education requirements.

S 14 SOC 1104   3.0 B   Society & Social Issues

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**BUSINESS ADMINISTRATION WITH FINANCE FIELD
OF EMPHASIS REQUIREMENTS
MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 68
SEMESTER CREDITS AND A 2.25 GPA**

EARNED: 9.00 CREDITS	3.66 GPA	
IP 21.00 CREDITS		
--> NEED: 38.00 CREDITS	2.25 GPA	

NOTE: Transfer students planning to major in Business
Administration must take a minimum of 24 semester
credits of courses from the Bemidji State University
Business Administration major.

I REQUIRED BASIC CORE COURSES

EARNED: 9.00 CREDITS
IP 21.00 CREDITS

- *1) COMPLETE THE FOLLOWING COURSES:*
   30.00 CREDITS ADDED 10 COURSES TAKEN
S 14	ACCT1101	3.0 A	Prin Of Accounting I
F 14	ACCT1102	3.0 B	Prin Of Accounting II
F 15	BUAD2220	3.0 Z	Legal Environment
S 15	BUAD2231	3.0 Z	Business Statistics I
F 14	BUAD2280	3.0 A	Computer Bus Apps
F 15	BUAD3351	3.0 Z	Management
F 15	BUAD3361	3.0 Z	Marketing
F 15	BUAD3771	3.0 Z	Financial Management
S 15	ECON2000	3.0 Z	Markets & Resource Alloc
S 15	ECON2100	3.0 Z	RP Macroecon & Bus Cycle

   NEED: *5 COURSES*
   COURSE LIST: BUAD3223,3381,4559,4600 MATH1170

ADDITIONAL REQUIRED COURSES

- *1) COMPLETE THE FOLLOWING COURSES:*
   NEED: *4 COURSES*
   COURSE LIST: BUAD3772,3872,4779 ECON3200

REQUIRED ELECTIVES

- *1) SELECT TWO OF THE FOLLOWING SEQUENCES:*
   NEED: *4 COURSES*

COURSE LIST: SEQ A: ACCT3404,3405
SEQ B: ACCT3118 BUAD3232
SEQ C: BUAD3677,3678

▼ ✔ **TRANSFER STUDENTS MAJORING IN BUSINESS ADMINISTRATION**
24 SEMESTER CREDITS FROM BEMIDJI STATE UNIVERSITY
BUSINESS ADMINISTRATION MAJOR HAVE BEEN COMPLETED

  EARNED: 12.00 CREDITS
       IP 21.00 CREDITS

▼   RETAKEN/WITHDRAWN/UNSUCCESSFULLY COMPLETED COURSES

       COURSES THAT HAVE BEEN RETAKEN OR IN THE PROCESS OF
       BEING RETAKEN.
       S 14 ECON2100   0.0 D   >D Macroecon & Bus Cycle

       YOU HAVE WITHDRAWN FROM THE FOLLOWING COURSES
       F 14 BUAD3321   0.0 W   Business Law I
       S 15 ACCT3201   0.0 W   Interm Acct I

▼

       *****************GENERAL ELECTIVES******************
       Credits accepted as elective credit may apply to your
       degree program. To determine if a course is comparable
       and may be granted equivalency to a course required in
       your degree program, fill out the Transfer Equivalency
       Form and submit it to the Department Chair of your major/
       minor for review.

       EARNED: 2.00 CREDITS

       F 13 ELECT003   2.0 TA   Intro to Effective Studies Sk
                                        UND   : UNIV125

Figure 1

III. Research

The survey design was quantitative and qualitative questionnaires that were sent to students and advisors via classrooms, Desire2Learn (D2L), and intercampus mail. According to The Sage Encyclopedia of Qualitative Research Methods, quantitative data is 'any data that is in numerical form such as statistics, percentages, etc.' In contrast, qualitative data has been defined by The Business Dictionary as 'data that approximates or characterizes but does not measure.'

D2L is a learning management system used by MnSCU. It displays a list of the students' classes, each of which are referred to as shells. Each shell contains information for the class such as news, quizzes, grades, etc. Both on campus and online classes utilize D2L as professors can easily collect assignments from their students over the system and also quickly inform the students of course changes.

After obtaining each professor's permission, the questionnaires were handed out at the beginning of classes for the on campus students. To ensure that the study received a diverse amount of students from different majors, one class from all departments offered by BSU were contacted to be included in the distribution. The questionnaire was sent out to the advisors through intercampus mail with a return address of this study's faculty advisor's box number. Thirty advisors of Bemidji State University were chosen to receive a questionnaire using the =RANDBETWEEN function on Excel to generate the names. This function selects inputted data at random. After receiving permission from the Human Subjects Committee to conduct this study, Lynn Johnson, the Director of the Center for Extended Learning, was contacted to set up a D2L shell for online students to take the questionnaire. Eight professors were asked if they would allow for this questionnaire to be given in their online classsses. Out of the eight, three professors agreed.

Two questionnaires were created: one with questions pertaining to the students and one to the advisors. Questions included 'rating scales' to assess the satisfaction level of the user with the current system, 'multiple choice' to determine if specific changes would be beneficial to the users, and 'additional comment' sections for the respondents to expand their answers further. The Likert scale model was used for the rating scales. According to The Business Dictionary, Likert scales are 'A method of ascribing quantitative value to qualitative data, to make it amenable to statistical analysis... Likert scales usually have five potential choices (strongly agree, agree, neutral, disagree, strongly disagree).' The Student Questionnaire can be viewed in Appendix I, and the Advisor Questionnaire in Appendix II.

In accordance to the requirements set by the Human Subjects Committee of Bemidji State University, an informed consent form and debriefing statement was created for the students and advisors who chose to participate in the study. These can be seen in Appendix III and IV, respectively.

For the quantitative portion of the questionnaire, descriptive statistics were used to evaluate the data. This allowed for easy review of the results for the rating scale and multiple choice questions of the participants. Common themes and patterns were identified between the on campus students, online students, and advisors for the qualitative section of the questionnaire to evaluate how useful the current DARS system is and what, if any, changes should be made to better aid those who use the system.

In total, there were 297 on campus students, 9 online students, and 11 advisors who chose to participate in this study. There were 13 students who admitted that they had never heard of DARS before receiving the questionnaire. The first sets of questions asked on the questionnaires were concerned with how the students and advisors viewed DARS. The students were asked if

they reviewed DARS before registering for classes. As seen in Table 1, of those who answered

the questions, 89.23% of the on campus students and 66.67% of the online students said yes.

Campus				Online		
Y/N	Participants	Percentage		Y/N	Participants	Percentage
Y	265	89.23%		Y	6	66.67%
N	32	10.77%		N	3	33.33%
Total	297	100.00%		Total	9	100.00%

Table 1

The questionnaire then asks a set of rating scale questions having to do with how satisfied the

students and advisors are with various aspects of DARS, with 1 being 'Not Satisfied,' 2

'Somewhat Satisfied,' 3 'Neutral,' 4 'Satisfied,' and 5 'Very Satisfied.'

The first question asked how satisfied the students and advisors are with the usefulness of

DARS. It was discovered that 55.89% of on campus students, 66.67% of online students, and

45.45% of advisors are 'Satisfied' with the usefulness of the current DARS system. These results

are show in Table 2.

Campus				Online				Advisors		
Scale	Participants	Percentage		Scale	Participants	Percentage		Scale	Participants	Percentage
5	59	19.87%		5	1	11.11%		5	2	18.18%
4	166	55.89%		4	6	66.67%		4	5	45.45%
3	56	18.86%		3	2	22.22%		3	1	9.09%
2	15	5.05%		2	0	0.00%		2	3	27.27%
1	1	0.34%		1	0	0.00%		1	0	0.00%
Total	297	100.00%		Total	9	100.00%		Total	11	100.00%

Table 2

The second question asked how satisfied they were with the format of DARS. Seen in Table

3, 38.05% of on campus students, 44.44% of online students, and 36.36% of advisors are

'Satisfied' with the format of DARS.

Campus		
Scale	Participants	Percentage
5	36	12.12%
4	113	38.05%
3	106	35.69%
2	34	11.45%
1	8	2.69%
Total	297	100.00%

Online		
Scale	Participants	Percentage
5	3	33.33%
4	4	44.44%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Advisors		
Scale	Participants	Percentage
5	2	18.18%
4	4	36.36%
3	0	0.00%
2	3	27.27%
1	2	18.18%
Total	11	100.00%

Table 3

The third question asked the students and advisors how satisfied they were with the user-friendliness of DARS. Displayed in Table 4, the data states that 44.78% of on campus students, 66.67% of online students, and 45.45% of advisors are 'Satisfied' with the user-friendliness of DARS.

Campus		
Scale	Participants	Percentage
5	40	13.47%
4	133	44.78%
3	80	26.94%
2	38	12.79%
1	6	2.02%
Total	297	100.00%

Online		
Scale	Participants	Percentage
5	2	22.22%
4	6	66.67%
3	1	11.11%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Advisors		
Scale	Participants	Percentage
5	1	9.09%
4	5	45.45%
3	1	9.09%
2	2	18.18%
1	2	18.18%
Total	11	100.00%

Table 4

The questionnaire then asks the participants which of the five words given describe DARS. These five words are 'Organized,' 'Cluttered,' 'Helpful,' 'Confusing,' and 'Easy to Read.' The students and advisors were allowed to select all that apply. Seen in Table 5, on campus students, online students, and advisors all selected 'Helpful' as the top word to describe DARS. Overall, the initial questions gave the impression that no changes were needed to the current DARS system.

	Campus	
Words	Participants	Percentage
Organized	80	17.32%
Cluttered	78	16.88%
Helpful	191	41.34%
Confusing	52	11.26%
Easy to Read	61	13.20%
Total	462	100.00%

	Online	
Words	Participants	Percentage
Organized	2	18.18%
Cluttered	0	0.00%
Helpful	5	45.45%
Confusing	2	18.18%
Easy to Read	2	18.18%
Total	11	100.00%

	Advisors	
Words	Participants	Percentage
Organized	5	22.73%
Cluttered	3	13.64%
Helpful	7	31.82%
Confusing	5	22.73%
Easy to Read	2	9.09%
Total	22	100.00%

Table 5

However, the questionnaire later asks questions related to potential changes to DARS. A second set of rating scales were used in this section and were concerned with how useful the students and advisors find existing aspects of DARS as well as changes that could be made. These scales were set up with 1 being 'Not Useful,' 2 'Somewhat Useful,' 3 'Neutral,' 4 'Useful,' and 5 'Very Useful.'

The first question asks only the students how useful they view the charts that can be found on the top of the DARS page. Of on campus students, 49.31% think that the charts at the top of the DARS page are 'Useful,' and 44.44% of online students find them to be 'Very Useful.' These results are shown in Table 6.

	Campus	
Scale	Participants	Percentage
5	73	25.17%
4	143	49.31%
3	37	12.76%
2	29	10.00%
1	8	2.76%
Total	290	100.00%

	Online	
Scale	Participants	Percentage
5	4	44.44%
4	3	33.33%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Table 6

The second question asks how useful the red X's/green checkmarks to indicate an incomplete/completed category in the current DARS is. One can see from Table 7 that students and advisors find the red X's and green checkmarks an important aspect of DARS. Of on campus

students, 46.67% find them 'Useful,' while 88.89% of online students and 66.67% of advisors

find them 'Very Useful.'

Campus		
Scale	Participants	Percentage
5	102	37.78%
4	126	46.67%
3	31	11.48%
2	11	4.07%
1	0	0.00%
Total	270	100.00%

Online		
Scale	Participants	Percentage
5	8	88.89%
4	1	11.11%
3	0	0.00%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Advisors		
Scale	Participants	Percentage
5	6	66.67%
4	1	11.11%
3	1	11.11%
2	1	11.11%
1	0	0.00%
Total	9	100.00%

Table 7

The participants also seemed to enjoy the suggested potential changes, which were covered in

the next three questions. The first potential change question stated that currently only a class'

course number is listed under 'Classes Needed' and asked how useful it would be to the students

and advisors to in addition display the entire class title. As seen in Table 8, 44.81% of on campus

students, and 55.56% of online students believe that displaying the entire class title would be

'Very Useful,' while 44.44% of advisors think it would be 'Useful.'

Campus		
Scale	Participants	Percentage
5	121	44.81%
4	99	36.67%
3	41	15.19%
2	6	2.22%
1	3	1.11%
Total	270	100.00%

Online		
Scale	Participants	Percentage
5	5	55.56%
4	3	33.33%
3	0	0.00%
2	1	11.11%
1	0	0.00%
Total	9	100.00%

Advisors		
Scale	Participants	Percentage
5	2	22.22%
4	4	44.44%
3	1	11.11%
2	2	22.22%
1	0	0.00%
Total	9	100.00%

Table 8

The second question asked how useful a change in the overall format would be so that there is

a greater distinction between the different categories of Majors, Minors, General Electives and

Programs. This change was found to be 'Useful' to 47.96% of on campus students and 62.50%

of online students. 44.44% of advisors were 'Neutral' about the change. These results can be

seen in Table 9.

Campus				Online				Advisors		
Scale	Participants	Percentage		Scale	Participants	Percentage		Scale	Participants	Percentage
5	63	23.42%		5	2	25.00%		5	2	22.22%
4	129	47.96%		4	5	62.50%		4	3	33.33%
3	65	24.16%		3	0	0.00%		3	4	44.44%
2	6	2.23%		2	0	0.00%		2	0	0.00%
1	6	2.23%		1	1	12.50%		1	0	0.00%
Total	269	100.00%		Total	8	100.00%		Total	9	100.00%

Table 9

The last potential change question asked the students how useful it would be to display the advisor contact information on DARS. Currently DARS offers a link for students to look up their advisor information; however, it leads the students to the online directory of all faculty members instead of providing them with contact information directly. As shown in Table 10, 40.00% of on campus students, and 44.44% of online students stated that advisor contact information would be 'Useful.'

Campus				Online		
Scale	Participants	Percentage		Scale	Participants	Percentage
5	95	35.19%		5	3	33.33%
4	108	40.00%		4	4	44.44%
3	55	20.37%		3	2	22.22%
2	8	2.96%		2	0	0.00%
1	4	1.48%		1	0	0.00%
Total	270	100.00%		Total	9	100.00%

Table 10

If a student has more than one major, emphasis, or concentration, DARS will separate these to multiple windows. This does not allow for the student or advisor to view all of the categories in one location, but instead forces them to switch between Internet tabs. The questionnaire asked the participants if it would beneficial to combine everything onto one DARS page. Of on campus students, 65.42%, 66.67% of online students, and 66.67% of advisors stated that they would prefer for one DARS page versus multiple windows. These results can be seen in Table 11.

Campus		
Y/N	Participants	Percentage
Y	157	65.42%
N	83	34.58%
Total	**240**	**100.00%**

Online		
Y/N	Participants	Percentage
Y	6	66.67%
N	3	33.33%
Total	**9**	**100.00%**

Advisors		
Y/N	Participants	Percentage
Y	6	66.67%
N	3	33.33%
Total	**9**	**100.00%**

Table 11

The questionnaire also asks the advisors if they have needed to view the students' ACT scores that are located at the top of the page. Shown in Table 12, out of the eleven advisors, 45.45% said that they occasionally view these scores, and wrote in that it is usually to determine math placement.

Advisors		
Frequency	Participants	Percentage
Always	3	27.27%
Occasionally	5	45.45%
Never	3	27.27%
Total	**11**	**100.00%**

Table 12

The last section of the quantitative questions asked which of the following forms students would take advantage of via DARs or that the advisor would like to have access to during an advising session. The forms provided on the questionnaire were 'On-line Course Work Only Forms,' 'Substitute/Transfer Equivalency Forms,' 'Graduation Planning Forms,' and 'Advisor Change Forms.' Shown in Table 13, it was found that students and advisors thought forms available on DARS would be advantageous, with 35.52% of on campus students, 42.11% of online students, and 31.82% selecting 'Graduation Plans' as the top form to include.

Campus		
Forms	Participants	Percentage
On-line	83	15.12%
Substitute	137	24.95%
Grad Plans	195	35.52%
Advisor	134	24.41%
Total	**549**	**100.00%**

Online		
Forms	Participants	Percentage
On-line	3	15.79%
Substitute	4	21.05%
Grad Plans	8	42.11%
Advisor	4	21.05%
Total	**19**	**100.00%**

Advisors		
Forms	Participants	Percentage
On-line	3	13.64%
Substitute	6	27.27%
Grad Plans	7	31.82%
Advisor	6	27.27%
Total	**22**	**100.00%**

Table 13

The qualitative portion of the questionnaires include the question 'What, if anything, would you change in the current DARS?' Most on campus students reiterated that they would like DARS to have the entire class title displayed for 'Classes Needed' versus only the class number. However, there were four common themes found for additional changes to DARS not mentioned in the questionnaire.

The first theme was to let the students know if a class is only offered during a specific semester. On campus students wrote that DARS should "add when/if classes are offered for next 2 semesters" and it should give "maybe a warning if a class is only offered at a certain time of year." The second theme was for DARS to suggest "what classes the students should take based on class popularity" or "what order is best to take them in." The third theme was to make DARS easier to locate. One student wrote "I wish it was displayed differently on e-services. It took me two years to find where it was." Lastly, the fourth theme was to update DARS more frequently. Students wrote that DARS includes classes they do not need to take or ones that are no longer offered. One student suggested that DARS should be "updated right after registration so you could see exactly where courses fall." Upon examining this theme closer, the issue of updating would need to be further researched as the problem could have occurred for multiple reasons; one being if the students were transferring courses from another institution.

There were no themes found amongst the online students. Most did not answer the qualitative questions, but those who did stated that, like the on campus students, they would prefer for DARS to be easier to access.

As with the online students, there were no common themes within the advisors. This is most likely due to the low number of participants in the online and advisor categories. However, the advisors who chose to answer the question also stated that DARS needs to be updated more

frequently and that it "should display what semester the course is offered." An additional suggested change was for DARS to "indicate # credits for each class" for those under the 'Classes Needed' section.

To view all of the data collected for on campus students, online students, and advisors please see Appendix V, VI, and VII, respectively.

IV. Revisions

Based on the results from the questionnaires, revisions were made to the current DARS in order to present a more effective system. To create these changes, Wix.com was utilized. Developed in 2006, Wix.com is a drag and drop website building platform that is allows its users to create full websites for free. It was chosen for its simplicity and user-friendliness. The sample system created is based on a student majoring in Business Administration with double emphases in Management and Entrepreneurship, double minoring in Management Information Systems and Psychology, and a member of the Honors Program at Bemidji State University. This student is referred to as 'Sample Student.'

To separate out the different categories of DARS, a Homepage was created and is shown in Figure 2. The Homepage introduces the student to their DARS and allows them to select what set of classes they would prefer to view depending on major(s), minor(s), and any programs they are participating in. It also gives them the option to view common forms used by the university as well as create their own schedule. These options will be discussed more in-depth later in this paper.
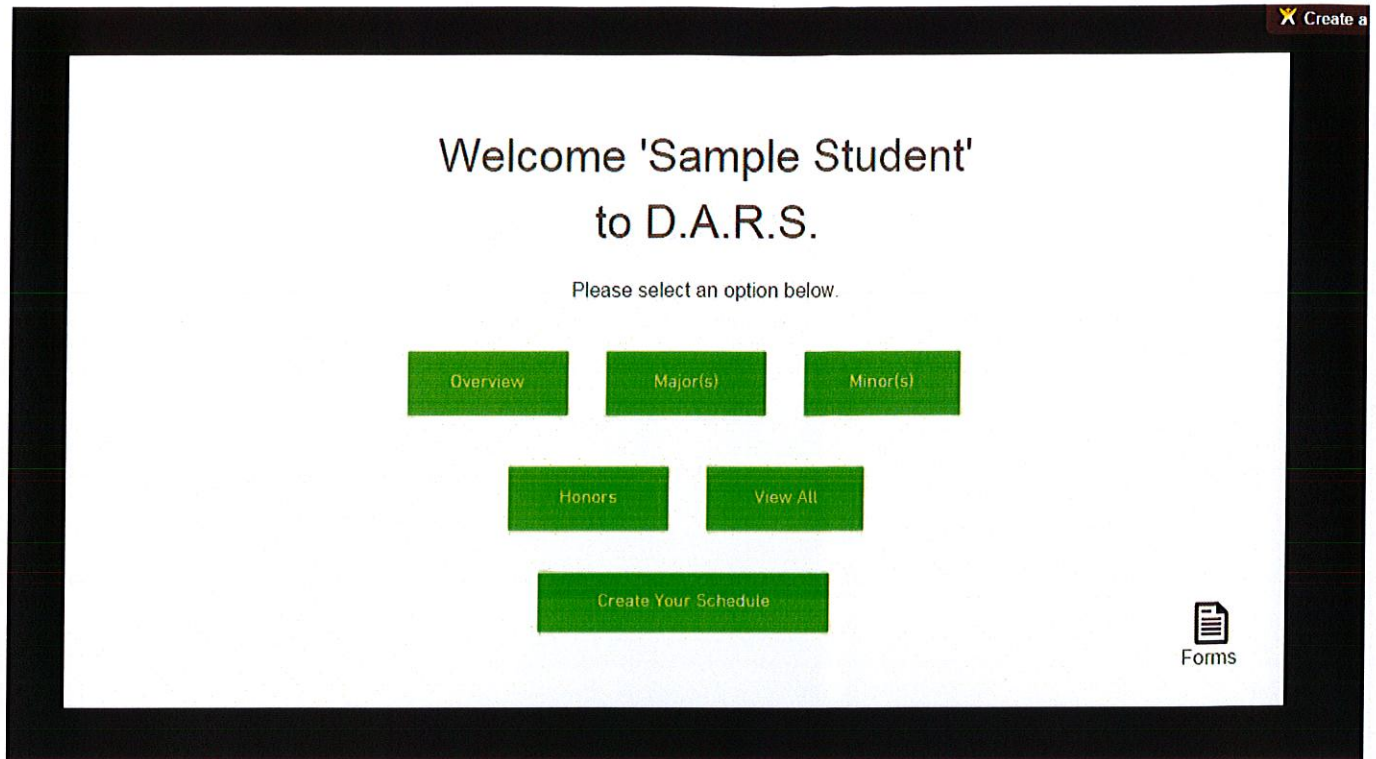
The Overview page can be seen in Figure 3. This page displays the student name and student

ID at the top. This sample system shows the student ID as '11111111.' It also provides the

student with the name of their advisor and includes an image of an envelope that, when clicked,

opens Microsoft Outlook and allows the student to directly email their advisor. For the purpose

of this sample system, the advisor of this paper is displayed as 'Sample Student's' advisor. Due

to the popularity of the graph in the existing DARS system, the revised system includes the

graph in the overview. Also on this page is the classification of the student, their ACT test

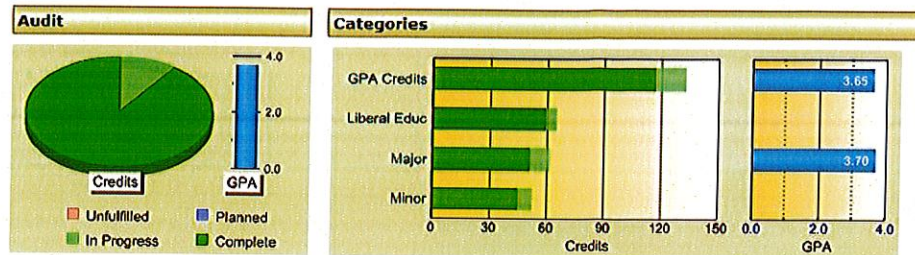scores, and any programs they are a participant of. All of these are currently in the existing

system.

Figure 3

Additionally, on each page of the proposed system, there is an icon that directs the user back to the Homepage and an icon that allows the user to print the current page.

As shown in Figure 4, if one selects the Major(s) button on the Homepage, the system takes them to a page that lists the classes in their major and any emphases they may have. On the right of the page, is a list of that particular student's graduation requirements according to their major. The red X's and green checkmarks have been carried into the current system as students and advisors found them to be useful.

🏠 Major(s)   🖨

Business Administration

✖ Required Courses:

ACCT 1101	Principles of Accounting I	3.0	B	F 11
ACCT 1102	Principles of Accounting II	3.0	B	S 12
BUAD 2220	Legal Environment	3.0	A	F 12
BUAD 2231	Business Statistics I	3.0	A	F 12
BUAD 2280	Computer Business Applications	3.0	A	F 13
BUAD 3223	Operations Management	3.0	A	S 14
BUAD 3551	Management	3.0	A	F 13
BUAD 3361	Marketing	3.0	B	F 13
BUAD 3381	Management Information Systems	3.0	A	F 13
BUAD 3771	Financial Management	3.0	Z	F 14
BUAD 4559	Strategic Management	3.0	Z	F 14
ECON 2000	Markets & Resource Allocation	3.0	A	F 11
ECON 2100	Macroeconomics & Business Cycle	3.0	B	F 12

Need:

BUAD 4600 Senior Seminar: Business Administration 1.0

Management Emphasis:

✔ Required Courses:

ACCT 3118	Financial Statement Analysis	3.0	A	S 14
BUAD 4354	Organizational Behavior	3.0	A	S 14
BUAD 4456	Human Resources Management	3.0	Z	F 14

✖ Required Electives (4):

BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 4458	Entrepreneurship	3.0	A	S 14

Need (2):

ACCT 3301	Cost Accounting I	3.0
BUAD 3232	Business Statistics II	3.0
BUAD 3420	Employment Law	3.0
BUAD 3520	Business Ethics	3.0
BUAD 3678	Risk Managment and Insurance	3.0
BUAD 4387	Corporate Information Management	3.0
BUAD 4469	Small Business Case Analysis	3.0
BUAD 4750	International Management	3.0
ECON 3070	Labor Economics	3.0

Entrepreneurship Emphasis:

✖ Required Courses:

BUAD 4458	Entrepreneurship	3.0	A	S 14

Need:

BUAD 4469	Small Business Case Analysis	3.0

✔ Required Electives (4):

ACCT 3118	Financial Statement Analysis	3.0	A	S 14
BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 3384	Systems Analysis & Design	3.0	A	F 13
BUAD 4456	Human Resources Management	3.0	Z	F 14

Graduation Requirements:

Major: Business Administration

✔ Must complete a minimum of 120 semester credits, including transfer work, and earn a 2.00 overall GPA. Not to include courses numbered below 0900, but may include up to 4 credits of 0900.

✔ Students must complete 40 semester credits of courses taken at the 3-4000 level

✖ Required to complete the Senior Exam and Graduating Senior Survey prior to graduation. Please contact Dr. Joann Fredrickson, Accrediation Coordinator, (Decker Hall 120, 218-755-2755) for more details on where to take the Exam and Survey. It is recommended you fulfill this requirement during your last term on attendance. Failure to do so may delay your graduation.

Emphasis: Management

✖ Must complete all areas with a total of at least 61 semester credits and a 2.25 GPA.
Earned: 45.00
In Progress: 9.00
GPA: 3.70

Emphasis: Entrepreneurship

✖ Must complete all areas with a total of at least 58 semester credits and a 2.25 GPA.
Earned: 48.00
In Progress: 9.00
GPA: 3.70

Figure 4

One of the changes made to the system that was requested widely by students and advisors, was to display the entire class title for classes needed instead of only the course number. This makes it easier and more efficient for the user to know what classes are still required for graduation. An additional change that would be useful, but was not included in this revised system, is to include what semester(s) the courses are offered.

The Minor(s) page opens up to a minor(s) homepage, which can be seen in Figure 5. This is

because the sample student has two minors. Having different tabs within this DARS page allows

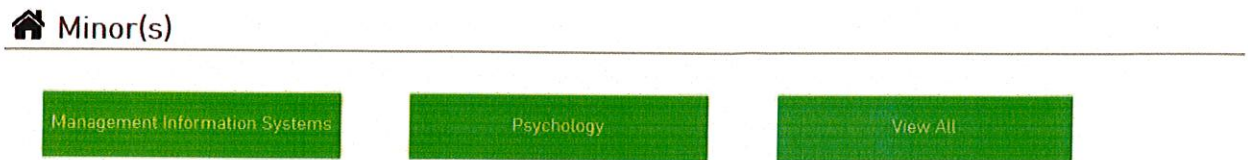for the user to view these minors separately or all at once.

🏠 Minor(s)

Management Information Systems	Psychology	View All

Figure 5

Once the user has selected a minor button, DARS opens to that page but maintains the three

buttons at the top so that the user can easily switch to a different minor. Seen in Figure 6, 7, and

8, the button that has been selected turns from green to gray in order for the user to quickly know

which page they are on. The graduation requirements for each minor are displayed on the right of

the page, just as in the Major(s) page.

🏠 Minor(s)

Management Information Systems	Psychology	View All

Graduation Requirements:

Minor: Management Information Systems

✔ Must complete all areas with a total of at least 19 semester credits and a 2.00 GPA.
   Earned: 21.00
   In Progress: 3.00
   GPA: 3.09

Management Information Systems

✔**Required Courses:**

BUAD 2231	Business Statistics I	3.0	A	F 12
BUAD 2280	Computer Business Applications	3.0	A	F 13
BUAD 3381	Management Information Systems	3.0	A	F 13
ACCT 1101	Principles of Accounting I	3.0	B	F 11

✖**Required Electives (5, 3 of which must not be repeated in the major):**

BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 3283	E-Commerce Web Development	3.0	A	S 14
BUAD 3382	Advanced Application System Dvpt	3.0	Z	F 14
BUAD 3384	Systems Analysis & Design	3.0	A	F 13

Need (1):

BUAD 2381	Structured Application Development	3.0
BUAD 3383	Data Communications	3.0
BUAD 3385	User Analysis and Interface Design	3.0
BUAD 4283	Systems Integration and Web Services	3.0
BUAD 4385	Data Modeling and Design	3.0
BUAD 4386	Applied Software Development Project	3.0
BUAD 4387	Corporate Information Management	3.0

Figure 6

🏠 Minor(s)

Management Information Systems	Psychology	View All

Graduation Requirements:

Minor: Psychology

✖ Must complete all areas with a total of at least 19 semester credits and a 2.00 GPA.
   Earned: 11.00
   In Progress: 4.00
   GPA: 3.09

Psychology

✔**Required Courses:**

PSY 1005	Introduction to Psychology	4.0	TA	S 11

✖**Required Electives (15 Semester Credits):**

PSY 2217	Abnormal Psychology	4.0	A	S 14
PSY 2227	Learning and Cognition	4.0	Z	F 14
PSY 3487	Cognitive Psychology	3.0	B	S 14

Need (4 Credits):

PSY 2200	Human Sexuality	3.0
PSY 3210	Death and Culture	3.0
PSY 3237	Lifespan Development	4.0
PSY 3332	Counseling & Crisis Intervention	4.0
PSY 3337	Group Processes	3.0
PSY 3357	Indust/Organizational Psychology	3.0
PSY 3367	Social Psychology	3.0
PSY 3401	Basic Statistics for Research	4.0
PSY 3402	Research Methods	4.0
PSY 4328	Behavior/Cognitive Intervention	4.0
PSY 4347	Psychologic Measurement	3.0
PSY 4403	Advanced Statistics & Research Design	4.0
PSY 4447	Research Laboratory	2.0
PSY 4459	Psychophysiol/Perception	4.0
PSY 4467	Personality Theories	3.0
PSY 4487	History & Syst of Psychology	3.0
PSY 4587	Human/Animal Interaction	4.0
PSY 4588	Multicultural Pscyhology	3.0
PSY 4870	Pre-Internship Seminar	1.0

Figure 7

⌂ Minor(s)   🖶

[Management Information Systems]   [Psychology]   [View All]

Management Information Systems

✔ Required Courses:

BUAD 2231	Business Statistics I	3.0	A	F 12
BUAD 2280	Computer Business Applications	3.0	A	F 13
BUAD 3381	Management Information Systems	3.0	A	F 13
ACCT 1101	Principles of Accounting I	3.0	B	F 11

✖ Required Electives (5, 3 of which must not be repeated in the major):

BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 3283	E-Commerce Web Development	3.0	A	S 14
BUAD 3382	Advanced Application System Dvpt	3.0	Z	F 14
BUAD 3384	Systems Analysis & Design	3.0	A	F 13

Need (1):

BUAD 2381	Structured Application Development	3.0
BUAD 3383	Data Communications	3.0
BUAD 3385	User Analysis and Interface Design	3.0
BUAD 4283	Systems Integration and Web Services	3.0
BUAD 4385	Data Modeling and Design	3.0
BUAD 4386	Applied Software Development Project	3.0
BUAD 4387	Corporate Information Management	3.0

Psychology

✔ Required Courses:

PSY 1005	Introduction to Psychology	4.0	TA	S 11

✖ Required Electives (15 Semester Credits):

PSY 2217	Abnormal Psychology	4.0	A	S 14
PSY 2227	Learning and Cognition	4.0	Z	F 14
PSY 3487	Cognitive Psychology	3.0	B	S 14

Need (4 Credits):

PSY 2200	Human Sexuality	3.0
PSY 3210	Death and Culture	3.0
PSY 3237	Lifespan Development	4.0
PSY 3332	Counseling & Crisis Intervention	4.0
PSY 3337	Group Processes	3.0
PSY 3357	Indust/Organizational Psychology	3.0
PSY 3367	Social Psychology	3.0
PSY 3401	Basic Statistics for Research	4.0
PSY 3402	Research Methods	4.0
PSY 4328	Behavior/Cognitive Intervention	4.0
PSY 4347	Psychologic Measurement	3.0
PSY 4403	Advanced Statistics & Research Design	4.0
PSY 4447	Research Laboratory	2.0
PSY 4459	Psychophysiol/Perception	4.0
PSY 4467	Personality Theories	3.0
PSY 4487	History & Syst of Psychology	3.0
PSY 4587	Human/Animal Interaction	4.0

Figure 8

The Honors page is similar to the Major(s) page, where it displays all of the classes the

'Sample Student' has completed and still needs to take. The graduation requirements for the

Honors Program are listed on the right hand side of the page. This can be seen in Figure 9.

Honors Program

✔ **I. Written and Oral Communication**

ENGL 1151	Composition I	4.0	TA	S 11
ENGL 2152	Argument and Exposition	3.0	A	S 12

✔ **II. Science (Area III of Lib Ed)**

SCI 2108	Concepts of Astronomy	4.0	TB	S 11
PHYS 101	Famous People of Science	3.0	TB	F 09

✔ **III. Honors Core Courses**

ENGL 2250	Understanding Literature	3.0	A	S 12
PSY 1005	Introduction to Psychology	4.0	TA	S 11
PSY 2217	Abnormal Psychology	4.0	A	S 14
PSY 2227	Learning and Cognition	4.0	B	F 14
ECON 2000	Markets & Resource Allocation	3.0	A	F 11
ECON 2100	Macroeconomics & Business Cycle	3.0	B	F 12
SOC 1104	Introduction to Sociology	3.0	B	F 11
HST 1304	World History I, Prehistory-1500	3.0	B	F 11
MATH 1170	College Algebra	4.0	A	S 12
GEOG 1400	World Regional Geography	3.0	B	F 12

✘ **IV. Required Honors Courses**

HOPR 1104	Unity/Diversity of KNowledge	2.0	A	F 11
HOPR 1105	Influence, Power, & Values	2.0	A	S 12
HOPR 2106	Studies in Literature & The Arts	2.0	A	F 12
HOPR 2107	Studies in Social Sciences & History	2.0	B	S 12
HOPR 3899	Pre-Thesis Seminar	1.0	A	F 13
HOPR 4889	Integrative Seminar	2.0	A	S 14

<u>Need:</u>

HOPR 4899	Honors Thesis	2.0

Graduation Requirements:

Honors Program

✔ Must complete all areas with a total of at least 40 semester credits.
   Earned: 59.00 credits
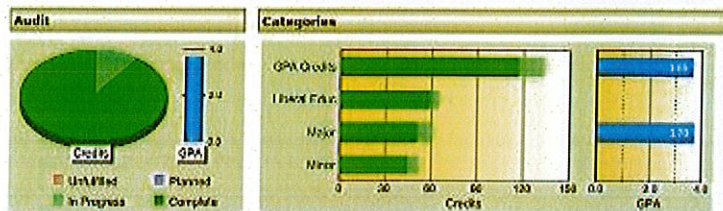   In Progress: 0.00 Credits

Figure 9

Seen in Figure 10, is the View All page. If the user wishes to see all classes in one page for Major(s), Minor(s), and Honors, this option allows them to do so.

View All

Business Administration Major

✗ Required Courses:

ACCT 1101	Principles of Accounting I	3.0	B	F 11
ACCT 1102	Principles of Accounting II	3.0	B	S 12
BUAD 2220	Legal Environment	3.0	A	F 12
BUAD 2231	Business Statistics I	3.0	A	F 12
BUAD 2280	Computer Business Applications	3.0	A	F 13
BUAD 3223	Operations Management	3.0	A	S 14
BUAD 3551	Management	3.0	A	F 13
BUAD 3361	Marketing	3.0	B	F 13
BUAD 3381	Management Information Systems	3.0	A	F 13
BUAD 3771	Financial Management	3.0	Z	F 14
BUAD 4559	Strategic Management	3.0	Z	F 14
ECON 2000	Markets & Resource Allocation	3.0	A	F 11
ECON 2100	Macroeconomics & Business Cycle	3.0	B	F 12

Need:

BUAD 4600 Senior Seminar: Business Administration 1.0

Management Emphasis:

✓ Required Courses:

ACCT 3116	Financial Statement Analysis	3.0	A	S 14
BUAD 4354	Organizational Behavior	3.0	A	S 14
BUAD 4456	Human Resources Management	3.0	Z	F 14

✗ Required Electives (4):

BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 4458	Entrepreneurship	3.0	A	S 14

Need (2):

ACCT 3301	Cost Accounting I	3.0
BUAD 3232	Business Statistics II	3.0
BUAD 3420	Employment Law	3.0
BUAD 3520	Business Ethics	3.0
BUAD 3678	Risk Managment and Insurance	3.0
BUAD 4387	Corporate Information Management	3.0
BUAD 4469	Small Business Case Analysis	3.0
BUAD 4750	International Management	3.0
ECON 3070	Labor Economics	3.0

Entrepreneurship Emphasis:

✗ Required Courses:

BUAD 4458	Entrepreneurship	3.0	A	S 14

Need:

BUAD 4469	Small Business Case Analysis	3.0

✓ Required Electives (4):

ACCT 3116	Financial Statement Analysis	3.0	A	S 14
BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 3384	Systems Analysis & Design	3.0	A	F 13
BUAD 4456	Human Resources Management	3.0	Z	F 14

Management Information Systems Minor

✓ Required Courses:

BUAD 2231	Business Statistics I	3.0	A	F 12
BUAD 2280	Computer Business Applications	3.0	A	F 13
BUAD 3381	Management Information Systems	3.0	A	F 13
ACCT 1101	Principles of Accounting I	3.0	B	F 11

✗ Required Electives (5, 3 of which must not be repeated in the major):

BUAD 3281	Decision Support Systems	3.0	A	F 13
BUAD 3283	E-Commerce Web Development	3.0	A	S 14
BUAD 3382	Advanced Application System Dvpt	3.0	Z	F 14
BUAD 3384	Systems Analysis & Design	3.0	A	F 13

Need (1):

BUAD 2381	Structured Application Development	3.0
BUAD 3383	Data Communications	3.0
BUAD 3385	User Analysis and Interface Design	3.0
BUAD 4283	Systems Integration and Web Services	3.0
BUAD 4385	Data Modeling and Design	3.0
BUAD 4386	Applied Software Development Project	3.0
BUAD 4387	Corporate Information Management	3.0

Emphasis: Management
✗ Must complete all areas with a total of at least 61 semester credits and a 2.25 GPA.
Earned: 45.00
In Progress: 9.00
GPA: 3.70

Emphasis: Entrepreneurship
✗ Must complete all areas with a total of at least 58 semester credits and a 2.25 GPA.
Earned: 48.00
In Progress: 9.00
GPA: 3.70

Minor: Management Information Systems
✓ Must complete all areas with a total of at least 19 semester credits and a 2.00 GPA.
Earned: 21.00
In Progress: 3.00
GPA: 3.09

Minor: Psychology
✗ Must complete all areas with a total of at least 19 semester credits and a 2.00 GPA.
Earned: 11.00
In Progress: 4.00
GPA: 3.09

Honors Program
✓ Must complete all areas with a total of at least 40 semester credits.
Earned: 59.00 credits
In Progress: 0.00 Credits

Psychology Minor

✔ Required Courses:

PSY 1005	Introduction to Psychology	4.0	TA	S 11

✗ Required Electives (15 Semester Credits):

PSY 2217	Abnormal Psychology	4.0	A	S 14
PSY 2227	Learning and Cognition	4.0	Z	F 14
PSY 3487	Cognitive Psychology	3.0	B	S 14

Need (4 Credits):

PSY 2200	Human Sexuality	3.0
PSY 3210	Death and Culture	3.0
PSY 3237	Lifespan Development	4.0
PSY 3332	Counseling & Crisis Intervention	4.0
PSY 3337	Group Processes	3.0
PSY 3357	Indust/Organizational Psychology	3.0
PSY 3367	Social Psychology	3.0
PSY 3401	Basic Statistics for Research	4.0
PSY 3402	Research Methods	4.0
PSY 4328	Behavior/Cognitive Intervention	4.0
PSY 4347	Psychologic Measurement	3.0
PSY 4403	Advanced Statistics & Research Design	4.0
PSY 4447	Research Laboratory	2.0
PSY 4459	Psychophysiol/Perception	4.0
PSY 4467	Personality Theories	3.0
PSY 4487	History & Syst of Psychology	3.0
PSY 4587	Human/Animal Interaction	4.0
PSY 4588	Multicultural Pscyhology	3.0
PSY 4670	Pre-Internship Seminar	1.0

Honors Program

✔ I. Written and Oral Communication

ENGL 1151	4.0	TA	S 11
ENGL 2152	3.0	A	S 12

✔ II. Science (Area III of Lib Ed)

SCI 2108	Concepts of Astronomy	4.0	TB	S 11
PHYS 101	Famous People of Science	3.0	TB	F 09

✔ III. Honors Core Courses

ENGL 2250	Understanding Literature	3.0	A	S 12
PSY 1005	Introduction to Psychology	4.0	TA	S 11
PSY 2217	Abnormal Psychology	4.0	A	S 14
PSY 2227	Learning and Cognition	4.0	B	F 14
ECON 2000	Markets & Resource Allocation	3.0	A	F 11
ECON 2100	Macroeconomics & Business Cycle	3.0	B	F 12
SOC 1104	Introduction to Sociology	3.0	B	F 11
HST 1304	World History I, Prehistory-1500	3.0	B	F 11
MATH 1170	College Algebra	4.0	A	S 12
GEOG 1400	World Regional Geography	3.0	B	F 12

✗ IV. Required Honors Courses

HOPR 1104	Unity/Diversity of Knowledge	2.0	A	F 11
HOPR 1105	Influence, Power, & Values	2.0	A	S 12
HOPR 2106	Studies in Literature & The Arts	2.0	A	F 12
HOPR 2107	Studies in Social Sciences & History	2.0	B	S 12
HOPR 3699	Pre-Thesis Seminar	1.0	A	F 13
HOPR 4669	Integrative Seminar	2.0	A	S 14

Need:

HOPR 4699	Honors Thesis	2.0

Figure 10

Also available on the Homepage is an icon to select Forms. As seen in Figure 11 popular

forms used by the students have been included for easy access. These forms include those asked

on the questionnaire, [On-line] 'Course Work Only,' 'Substitute/Transfer Equivalency,'

'Graduation Planning,' and 'Advisor Change,' as well as others found to be used frequently such

as 'Arranged Course Request,' 'Course Work Only,' 'Graduation Application Revision,' and

'Internship Agreement.' Upon selecting one of the form links, the form opens in a new tab for

the user to print and complete.

⌂ Forms

Advisor Change
Arranged Course Request
Arranged Course- Honors Thesis
Course Work Only
Graduation Summary and Application
Graduation Application Revision
Internship Agreement
Substitute/Transfer Equivalency

Figure 11

The Create Your Schedule page is an interactive section of DARS that allows for the users to

select which classes they still need to take and assign those classes to a particular semester using

drag n' drop. The Schedule Homepage shown in Figure 12 displays the three tabs that apply to

'Sample Student:' Major(s), Minor(s), and Honors.

Create Your Schedule

Drag n' drop classes into your semester schedule pages.

| Major(s) | Minor(s) | Honors |

Search catalog with class ID or class title.

Q Course Search

Fall ▼   2015 ▼

Spring ▼   2016 ▼

➕ Add Schedule Page   💾 Save Schedule

Figure 12

There is also an option for the student to search the catalog using the class ID or class title. Once a tab has been selected or class has been searched for, the list of classes available will be displayed. This can be seen in Figure 13, 14, and 15 for the three separate tabs.

Create Your Schedule

Drag n' drop classes into your semester schedule pages.

| Major(s) | Minor(s) | Honors |

Search catalog with class ID or class title.

Q Course Search

Fall ▼   2015 ▼

Business Administration

BUAD 4600 Senior Seminar: Business Administration 1.0

Management Emphasis:

Required Electives (Need 2):

ACCT 3301	Cost Accounting I	3.0
BUAD 3232	Business Statistics II	3.0
BUAD 3420	Employment Law	3.0
BUAD 3520	Business Ethics	3.0
BUAD 3678	Risk Managment and Insurance	3.0
BUAD 4387	Corporate Information Management	3.0
BUAD 4469	Small Business Case Analysis	3.0
BUAD 4750	International Management	3.0
ECON 3070	Labor Economics	3.0

Entrepreneurship Emphasis:

BUAD 4469 Small Business Case Analysis 3.0

Spring ▼   2016 ▼

➕ Add Schedule Page   💾 Save Schedule

Figure 13

🏠 Create Your Schedule

Drag n' drop classes into your semester schedule pages.

[Major(s)]   [Minor(s)]   [Honors]

Search catalog with
class ID or class title.

🔍 Course Search

Fall ▾ 2015 ▾

Management Information Systems

Required Electives (Need 1):

BUAD 2381	Structured Application Development	3.0
BUAD 3383	Data Communications	3.0
BUAD 3385	User Analysis and Interface Design	3.0
BUAD 4283	Systems Integration and Web Services	3.0
BUAD 4385	Data Modeling and Design	3.0
BUAD 4386	Applied Software Development Project	3.0
BUAD 4387	Corporate Information Management	3.0

Psychology

Required Electives (Need 4 Semester Credits):

PSY 2200	Human Sexuality	3.0
PSY 3210	Death and Culture	3.0
PSY 3237	Lifespan Development	4.0
PSY 3332	Counseling & Crisis Intervention	4.0
PSY 3337	Group Processes	3.0
PSY 3357	Indust/Organizational Psychology	3.0
PSY 3367	Social Psychology	3.0
PSY 3401	Basic Statistics for Research	4.0
PSY 3402	Research Methods	4.0
PSY 4328	Behavior/Cognitive Intervention	4.0
PSY 4347	Psychologic Measurement	3.0
PSY 4403	Advanced Statistics & Research Design	4.0
PSY 4447	Research Laboratory	2.0
PSY 4459	Psychophysiol/Perception	4.0
PSY 4467	Personality Theories	3.0
PSY 4487	History & Syst of Psychology	3.0
PSY 4587	Human/Animal Interaction	4.0
PSY 4588	Multicultural Psychology	3.0
PSY 4870	Pre-Internship Seminar	1.0

Spring ▾ 2016 ▾

➕ Add Schedule Page   💾 Save Schedule

Figure 14

🏠 Create Your Schedule

Drag n' drop classes into your semester schedule pages.

[Major(s)]   [Minor(s)]   [Honors]   ✖ Create a WiX site!

Search catalog with
class ID or class title.

🔍 Course Search

Fall ▾ 2015 ▾

Honors Program

HOPR 4899 Honors Thesis   2.0

Spring ▾ 2016 ▾

➕ Add Schedule Page   💾 Save Schedule

Figure 15

The student can then select the class they desire and drag n' drop it into the semester schedule page they plan to take it during. Show in Figure 16, a student selects BUAD 4469 Small Business Case Analysis and drags it into the Fall 2015 semester schedule page. The class will then disappear from the list of Management and Entrepreneurship Emphasis classes.

Figure 16

Students are able to add as many schedule pages as they need and can select from the dropdown if the semester is fall, spring, or summer as well as choose the year. Once they have created a schedule, they can save it and come back to view the schedule later. This will improve planning semester schedules for registration. It would also be helpful if the semester that the course is offered was able to be displayed next to the course title.

V. Conclusion

In conclusion, students and advisors of Bemidji State University recognize that DARS is a helpful tool that has many good qualities but also has the potential for revisions to further improve the system. By creating a more streamlined DARS that includes separating out the

categories and including class title names, students will be able to more easily view what classes they need to graduate. Additionally, the interactive Create Your Schedule component will aid students in planning ahead for future semesters.

A change that would be beneficial to DARS but was not included in this revised system is the ability to display which semester(s) that the classes are available. Also, participants of the study noted that DARS needs to be updated more frequently and should be easier to locate on E-Services. These additional changes would be valuable to the users.

Overall, the proposed DARS will create a more effective and efficient system for the students and advisors of MnSCU.

Appendices

Appendix I: DARS Student Questionnaire

Overview

1. What year are you at Bemidji State University?

   ☐ Freshman   ☐ Sophomore   ☐ Junior   ☐ Senior   ☐ Super Senior

2. What is your major?

3. Do you review your DARS before registering for classes?   ☐ Yes   ☐ No

   Additional Comments:

4. When meeting with your advisor, do you print out a copy of DARS?   ☐ Yes   ☐ No

5. When meeting with your advisor, does he/she review the printed copy or the online version of DARS?

   ☐ Printed Copy   ☐ Online   ☐ Both   ☐ Neither

   Additional Comments:

6. On a scale of 1-5, how satisfied are you with the usefulness of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

On a scale of 1-5, how satisfied are you with the format of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

8. On a scale of 1-5, how satisfied are you with the user-friendliness of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

9. Which of the following best describes DARS? Please select all that apply.

   ☐ Organized   ☐ Cluttered   ☐ Helpful   ☐ Confusing   ☐ Easy to Read

Categories of DARS

10. How useful are the charts that can be found on the top of your DARS? See example below:
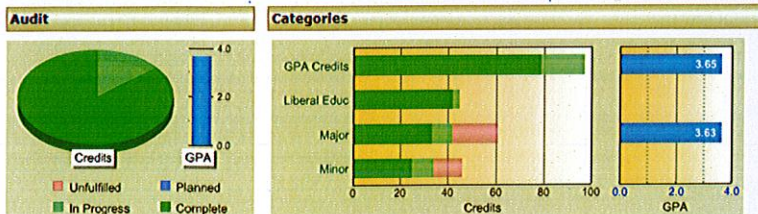
1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

   Additional Comments:
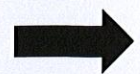
11. Do you have more than one major/emphasis/concentration? ☐ Yes ☐ No

12. Currently, DARS divides these majors/emphases/concentrations into separate windows to view. Would it be more beneficial to you, as a student, for them to all be combined into one DARS page? ☐ Yes ☐ No
    Please explain your answer:

Potential Changes to DARS

13. On a scale of 1-5, how would you rate the usefulness of the red X's/green checkmarks to indicate an incomplete/completed category in the current DARS?

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

14. What, if anything, do you find useful in the current DARS?

15. On a scale of 1-5, how would you rate the usefulness of the following potential changes to the format of DARS?
    a. Currently, only a class' course number is listed under 'Classes Needed.' The change would be to display the entire class title.

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

    b. A change in the overall format so that there is a greater distinction between the different categories.

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

    c. Display your advisor contact information.

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

16. What, if anything, would you change in the current DARS?

Forms

17. What, if any, of the following forms would you take advantage of having access to via DARS?
    ☐ On-line Course Work Only Form   ☐ Graduation Planning Form
    ☐ Substitute/Transfer Course Equivalency Form   ☐ Advisor Change Form

18. Please list any other forms that would be helpful to include on your DARS page:

Appendix II: DARS Advisor Questionnaire

Overview

19. How many years have you been advising at Bemidji State University?

☐ 1-4   ☐ 5-9   ☐ 10-14   ☐ 15+

20. What is your department?

21. Do you find DARS helpful when aiding your advisees in planning their course schedule?

☐ Yes   ☐ No

Additional Comments:

22. When meeting with your advisees, do the majority of them print out a copy of DARS for you to review?

☐ Yes   ☐ No

23. When meeting with an advisee, do you more often review the printed copy or the online version of DARS?

☐ Printed Copy   ☐ Online   ☐ Both   ☐ Neither

Additional Comments:

24. On a scale of 1-5, how satisfied are you with the usefulness of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

25. On a scale of 1-5, how satisfied are you with the format of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

26. On a scale of 1-5, how satisfied are you with the user-friendliness of DARS?

1	2	3	4	5
Not Satisfied	Somewhat Satisfied	Neutral	Satisfied	Very Satisfied

27. Which of the following best describes DARS? Please select all that apply.

☐ Organized   ☐ Helpful   ☐ Easy to Read
☐ Cluttered   ☐ Confusing

Categories of DARS

28. Currently, DARS divides a student's majors/emphases/concentrations into separate windows to view. Would it be more beneficial to you, as an advisor, for them to all be combined into one DARS page?   ☐ Yes   ☐ No

29. Currently, DARS includes a student's ACT/SAT scores on the top of the page. Have you, as an advisor, ever had the need to view these scores?   ☐ Never   ☐ Occasionally   ☐ Always

Please explain your answer:

Potential Changes to DARS

). On a scale of 1-5, how would you rate the usefulness of the red X's/green checkmarks to indicate an incomplete/completed category in the current DARS?

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

31. What if anything, do you find useful in the current DARS when advising?

32. On a scale of 1-5, how would you rate the usefulness of the following potential changes to the format of DARS?

d. Currently, only a class' course number is listed under 'Classes Needed.' The change would be to display the entire class title.

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

e. A change in the overall format so that there is a greater distinction between the different categories.

1	2	3	4	5
Not Useful	Somewhat Useful	Neutral	Useful	Very Useful

33. What, if anything, would you change in the current DARS to better aid in advising?

Forms

34. What, if any, of the following forms would be helpful to have access to via DARS during advising meetings?
   □ On-line Course Work Only Form   □ Graduation Planning Form
   □ Substitute/Transfer Course Equivalency Form   □ Advisor Change Form

35. Please list any other forms that would be helpful to have in DARS:

Appendix III: Informed Consent Form

<u>Informed Consent Form</u>

You are invited to participate in a study of the Degree Auditing Reporting System (DARS) used by Minnesota colleges and universities. I hope to learn of any changes that can be made to the current system in order for DARS to be better enhanced and more beneficial to the students and advisors. You were selected as a possible participant in this study because you are a student or advisor of Bemidji State University.

All responses to this questionnaire will be kept confidential.

Your participation is voluntary and you may refuse to participate, or may discontinue at any time. No associated risks are expected while taking the survey.

If you have any questions about this study, please contact Amanda Wick at amanda.wick@live.bemidjistate.edu.
Advisors: Please return this questionnaire by <u>March 31st</u>.
*

By signing your name and by completing the attached questionnaire, you are giving consent to participate in this study.

_____   _____
            Signature   *Date*

Appendix IV: Debriefing Statement

Debriefing Statement

Thank you for participating in this study! The purpose of this study is to determine what the students and advisors of Bemidji State University do and do not find helpful in the current Degree Auditing Reporting System (DARS). This information will be used to aid in my research for my Honors Thesis about changes that can be made to produce a more effective and efficient DARS system. If you wish to view the results from this study, you may access the thesis in the spring of 2015 through the Honors Office located in HS 357.

If you have any questions or you would like more information about this study, please contact Amanda Wick at amanda.wick@live.bemidjistate.edu. It is not expected that you will suffer any adverse effects from this study. If that should happen, BSU students are encouraged to contact the BSU Counseling Center and all others should contact their health care provider.

Thank you again for your participation!

Appendix V: On Campus Students

Review DARS before meeting with advisor:

Y/N	Participants	Percentage
Y	265	89.23%
N	32	10.77%
Total	297	100.00%

Print a copy of DARS:

Y/N	Participants	Percentage
Y	140	47.46%
N	155	52.54%
Total	295	100.00%

Advisor review method:

Method	Partipants	Percentage
Printed	54	18.18%
Online	123	41.41%
Both	70	23.57%
Neither	50	16.84%
Total	297	100.00%

Usefulness of DARS:

Scale	Participants	Percentage
5	59	19.87%
4	166	55.89%
3	56	18.86%
2	15	5.05%
1	1	0.34%
Total	297	100.00%

Format of DARS:

Scale	Participants	Percentage
5	36	12.12%
4	113	38.05%
3	106	35.69%
2	34	11.45%
1	8	2.69%
Total	297	100.00%

User-Friendliness of DARS:

Scale	Participants	Percentage
5	40	13.47%
4	133	44.78%
3	80	26.94%
2	38	12.79%
1	6	2.02%
Total	297	100.00%

Words that describe DARS:

Words	Participants	Percentage
Organized	80	17.32%
Cluttered	78	16.88%
Helpful	191	41.34%
Confusing	52	11.26%
Easy to Read	61	13.20%
Total	462	100.00%

Usefulness of Charts:

Scale	Participants	Percentage
5	73	25.17%
4	143	49.31%
3	37	12.76%
2	29	10.00%
1	8	2.76%
Total	290	100.00%

Multiple Majors/Emphases/Concentrations:

Y/N	Participants	Percentage
Y	81	30.00%
N	189	70.00%
Total	270	100.00%

Combine DARS into one page:

Y/N	Participants	Percentage
Y	157	65.42%
N	83	34.58%
Total	240	100.00%

Usefulness of X's/Checkmarks:

Scale	Participants	Percentage
5	102	37.78%
4	126	46.67%
3	31	11.48%
2	11	4.07%
1	0	0.00%
Total	270	100.00%

Display Class Title:

Scale	Participants	Percentage
5	121	44.81%
4	99	36.67%
3	41	15.19%
2	6	2.22%
1	3	1.11%
Total	270	100.00%

Greater Category Distinction:

Scale	Participants	Percentage
5	63	23.42%
4	129	47.96%
3	65	24.16%
2	6	2.23%
1	6	2.23%
Total	269	100.00%

Display Advisor Contact Information:

Scale	Participants	Percentage
5	95	35.19%
4	108	40.00%
3	55	20.37%
2	8	2.96%
1	4	1.48%
Total	270	100.00%

Forms via DARS:

Forms	Participants	Percentage
On-line	83	15.12%
Substitute	137	24.95%
Grad Plans	195	35.52%
Advisor Change	134	24.41%
Total	549	100.00%

Appendix VI: Online Students

Review DARS before meeting with advisor:

Y/N	Participants	Percentage
Y	6	66.67%
N	3	33.33%
Total	9	100.00%

Print a copy of DARS:

Y/N	Participants	Percentage
Y	2	22.22%
N	6	66.67%
N/A	1	11.11%
Total	9	100.00%

Advisor review method:

Method	Participants	Percentage
Printed	1	12.50%
Online	2	25.00%
Both	1	12.50%
N/A	4	50.00%
Total	8	100.00%

Usefulness of DARS:

Scale	Participants	Percentage
5	1	11.11%
4	6	66.67%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Format of DARS:

Scale	Participants	Percentage
5	3	33.33%
4	4	44.44%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

User-Friendliness of DARS:

Scale	Participants	Percentage
5	2	22.22%
4	6	66.67%
3	1	11.11%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Words that describe DARS:

Words	Participants	Percentage
Organized	2	18.18%
Cluttered	0	0.00%
Helpful	5	45.45%
Confusing	2	18.18%
Easy to Read	2	18.18%
Total	11	100.00%

Usefulness of Charts:

Scale	Participants	Percentage
5	4	44.44%
4	3	33.33%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Multiple Majors/Emphases/Concentrations:

Y/N	Participants	Percentage
Y	6	66.67%
N	3	33.33%
Total	9	100.00%

Combine DARS into one page:

Y/N	Participants	Percentage
Y	6	66.67%
N	3	33.33%
Total	9	100.00%

Usefulness of X's/Checkmarks:

Scale	Participants	Percentage
5	8	88.89%
4	1	11.11%
3	0	0.00%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Display Class Title:

Scale	Participants	Percentage
5	5	55.56%
4	3	33.33%
3	0	0.00%
2	1	11.11%
1	0	0.00%
Total	9	100.00%

Greater Category Distinction:

Scale	Participants	Percentage
5	2	25.00%
4	5	62.50%
3	0	0.00%
2	0	0.00%
1	1	12.50%
Total	8	100.00%

Display Advisor Contact Information:

Scale	Participants	Percentage
5	3	33.33%
4	4	44.44%
3	2	22.22%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Forms via DARS:

Forms	Participants	Percentage
On-line	3	15.79%
Substitute	4	21.05%
Grad Plans	8	42.11%
Advisor Change	4	21.05%
Total	19	100.00%

Appendix VII: Advisors

Is DARS helpful when advising:

Y/N	Participants	Percentage
Y	8	80.00%
N	2	20.00%
Total	10	100.00%

Advisees print DARS:

Y/N	Participants	Percentage
Y	6	54.55%
N	5	45.45%
Total	11	100.00%

Review method:

Method	Participants	Percentage
Printed	4	36.36%
Online	1	9.09%
Both	5	45.45%
Neither	1	9.09%
Total	11	100.00%

Usefulness of DARS:

Scale	Participants	Percentage
5	2	18.18%
4	5	45.45%
3	1	9.09%
2	3	27.27%
1	0	0.00%
Total	11	100.00%

Format of DARS:

Scale	Participants	Percentage
5	2	18.18%
4	4	36.36%
3	0	0.00%
2	3	27.27%
1	2	18.18%
Total	11	100.00%

User-Friendliness of DARS:

Scale	Participants	Percentage
5	1	9.09%
4	5	45.45%
3	1	9.09%
2	2	18.18%
1	2	18.18%
Total	11	100.00%

Words that describe DARS:

Words	Participants	Percentage
Organized	5	22.73%
Cluttered	3	13.64%
Helpful	7	31.82%
Confusing	5	22.73%
Easy to Re	2	9.09%
Total	22	100.00%

Combine DARS into one page:

Y/N	Partcipants	Percentage
Y	6	66.67%
N	3	33.33%
Total	9	100.00%

View ACT scores on DARS:

Freque	Participants	Percentage
Always	3	27.27%
Occasiona	5	45.45%
Never	3	27.27%
Total	11	100.00%

Usefulness of X's/Checkmarks:

Scale	Participants	Percentage
5	6	66.67%
4	1	11.11%
3	1	11.11%
2	1	11.11%
1	0	0.00%
Total	9	100.00%

Display Class Title:

Scale	Participants	Percentage
5	2	22.22%
4	4	44.44%
3	1	11.11%
2	2	22.22%
1	0	0.00%
Total	9	100.00%

Greater Category Distinction:

Scale	Participants	Percentage
5	2	22.22%
4	3	33.33%
3	4	44.44%
2	0	0.00%
1	0	0.00%
Total	9	100.00%

Forms via DARS:

Forms	Participants	Percentage
On-line	3	13.64%
Substitut	6	27.27%
Grad Plar	7	31.82%
Advisor (	6	27.27%
Total	22	100.00%

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