
The Office of Student Counseling offers academic and personal support to African American and Native American students attending a university in the southeastern United States. The primary objective is to promote academic excellence, increase retention, and improve the campus climate for diversity. The office currently uses a Microsoft Access database to track students' academic progress. The goal of this project was to replace the existing system with a Microsoft Access database linked from an Oracle 9i platform. The Oracle database was created in an earlier project. This project involved designing a user interface and conducting usability testing with the current end users.

Headings:

- Database -- Management -- Systems
- Systems Analysis
- User Interface -- Design
- User Interface -- Analysis
THE OFFICE OF STUDENT COUNSELING’S DATABASE PROJECT

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A Master's paper submitted to the faculty
of the School of Information and Library Science
of the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements
for the degree of Master of Science in
Information Science.

Chapel Hill, North Carolina

April, 2003

Approved by:

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Advisor
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Background

The Office for Student Counseling (OSC) is located at a public university in the southeastern United States. The office offers academic and personal support to all students attending the university. OSC's primary objective is to sponsor programs and activities that promote academic excellence, increase retention, and improve the campus climate for diversity among Native American and African American undergraduates. On average each year, about 450 students participate in the mentoring program. The OSC staff includes a Dean, Associate Dean, Assistant Dean, and Administrative Assistant who work with numerous graduate assistants (GAs) and student advisors to meet the needs of the University's students.

GAs report directly to the Dean of the OSC. The GAs' primary responsibilities include monitoring twelve Minority Advisors (MA) and responding to "Early Warning Reports". If a student receives a grade below a C in a course, a GA is issued an "Early Warning Report" (EWR) and schedules an advising meeting with the student (advisee). MAs are upper-class undergraduate students who act as advisee mentors. Each advisor meets with up to five advisees on a bi-weekly basis to monitor and facilitate their academic progress. Currently information from these meetings is recorded on a "Bi-Weekly Visitation Form". GAs and MAs may also decide to provide one-on-one tutoring for a specific course; these meetings known as "Scholastic Advancement Sessions" (SAS). Currently the office uses a Microsoft Access database that tracks Bi-Weekly Visitation Forms and Early Warning Reports. The database is currently

1 Appendix A contains a glossary of the acronyms used.
housed on OSC’s server.

**Problem Statement**

The Dean would like to start tracking additional information. This includes specific SAS information such as which individual sessions a student attended, which advisor taught the sessions, and what subjects they are qualified to teach. The system also fails to keep track of any extra-curricular activities that the student may be involved in.

All the reports are manually calculated and produced using Microsoft Word and Excel applications as opposed to query driven reports from Access. The database only allows end users to search students by student identification number (PID). This involves searching hard copies of the Bi-Weekly Visitation forms in order to match up the name with the PID. End users have also complained that no one has trained them to use the database properly. The developer no longer works in the OSC and did not provide a user manual.

**Statement of Need**

The Dean has requested the development of a database that will serve as an academic performance and monitoring system. This system will track the academic performance of freshman minority students and their participation in OSC programs and services such as the Minority Student Advisory Program and Scholastic Advancement Sessions (SAS). The Dean wants a database that will help justify these services, which hopefully will improve academic success.
through mentoring and tutoring. He wants to prove that students involved in OSC’s programs are performing at better rates based on GPAs than students that are not involved. He also wants to look at extra-curricular activities such as employment and campus activities to see how they affect student GPAs.

An Oracle database was designed in an earlier project. The requirements gathering process consisted of contextual interviews with both the Dean of OSC and end users of the current system. Artifacts were used to further explain the data needed in the newly designed system. From the interviews, an Entity Relationship Diagram and Data Dictionary were created, which are shown in Appendix B and C. The scope of the previous project did not include a graphical user interface, which prompted me to create a user interface for my master’s project, using MS Access linked from the Oracle 9i platform previously created.

The intended users will be GAs and the Dean of OSC. With this in mind, user access to the database will be password-protected and accessible only to them. Specific information being tracked includes:

- Student contact information
- Student courses
- Student grades and SAT scores
- EWRs received from course instructors
- Student participation in Bi-Weekly Visitations
- Student participation in SA tutoring sessions
- Student contact with other advising agencies or individuals.
Resources Used

To complete my project, I used computer workstations with Windows 2000 installed as the Operating System and Oracle 8i client, which enabled me to connect to the Oracle 9i Server. I used Microsoft Access 2000 to design the user interface, which was linked from the Oracle 9i platform. The rationale for using Microsoft Access 2000 as the user interface was the end users' familiarity with the application. They also have Microsoft Access installed on all the staff workstations. Technical support and ongoing maintenance were also concerns. I knew that once the database was implemented I would no longer be available to support the application. After talking to the Dean, he said his staff feels comfortable using Microsoft Access since that is what they currently use. He also explained that the department has very little to no computer technical support, which eliminated the option of using Oracle forms and reports.

Connecting the User Interface (Access 2000) to the Oracle 9i Platform

In order to connect to the Oracle 9i server, an Oracle client must be installed on the workstation. After installing the Oracle client, one must add the Data Source Name (DSN) and ODBC driver to the workstation. Appendix D details the steps required to create an Oracle ODBC driver and DSN. Once the tables from the Oracle database were linked to Microsoft Access, I was able to start the design process for the interface.
Designing the User Interface

I used Microsoft Access 2000 forms to design the interface. The main objective was to create an intuitive design for the end user, which would permit easy navigation. My design philosophy was based on readings from Cooper & Reiman (2003), Nielsen (2000), and Rearrow (2000). Cooper and Reiman (2003) discuss the top-down design approach in which the developer defines the database objectives and user needs in order to create the interface (Cooper & Reiman, 2003, p.19). Nielsen (2000) emphasizes the importance of simplicity, while Rearrow (2000) stresses the importance of consistency in designing the interface (Neilson, 2000, p. 380; Rearrow 2000, p. 128).

The design strategy was based on Cooper & Reiman (2003) top down design technique in that, I first defined the major tasks of the system and then created forms based on the tasks. The tasks were defined through the contextual interviews with the Dean and end users of the current system. During the requirements gathering phase, artifacts were also used to determine attributes for data entry including Bi-weekly Visitation forms, Early Warning Report forms, and SAS forms.

Major Tasks

There are two types of tasks the system must support: data entry, and answering queries and generating reports.

Data Entry Tasks:

1) To enter student information:
first name, last name, address, email address, phone number, advisor’s name, enrolled courses.

This information is provided in electronic format from the University’s Registrar Office.

2) To use the search function to look up students in the database.

3) To enter student advisor information:

   first name, last name, email address, phone number, courses they tutor.

   This information is provided as advisors are hired.

4) To enter Bi-Weekly Visitation comments about each student, assessing their academic progress. This information is taken from the pager Bi-Weekly Visitation forms.

5) To enter any Early Warning Reports due to unsatisfactory grades.

   This information is taken from the Early Warning Report paper forms.

6) To enter all tutor sessions (SAS sessions) that students have attended.

   This information is taken from the SAS paper forms.

7) To add any extracurricular activities that the student is involved in.

   This is information provided by the student.

Information in hard copy format is entered into the database by hand.

Information in electronic format is currently printed as a hard copy and then manually entered into the database. The Dean has future plans to receive student information through electronic imports from the University’s Registrar Office.
Queries and Reports

1) A report listing all students and their GPAs.

2) A listing of student advisors, their respective students, email address, and phone number.

3) A listing of students with EWRs, their enrolled EWR course, estimated grade, and final grade.

4) A listing of students’ Bi-Weekly Visitation comments.

5) A count of advisor/instructor contact for each student, which include SAS and Bi-weekly Visitation comments and their respective GPAs.

6) A listing of students’ extra-curricular activities, average time spent a week, and their GPA.

I then created a top-level view (see Figure 1), which shows the navigational scheme of the interfaces. This diagram shows the organization of the interfaces and where they are launched. I created a form for each of the major tasks previously listed along with a main switchboard and a report form. A total of ten forms were created. I separated three major functions of the system by creating forms that are launched from the main switchboard; the student form, the student advisor form and the report form. Each of these forms have command buttons represented as boxes that navigate the user to the other forms.

Some common design features among the forms include arrow buttons allowing the user to go back and forth between records. I included a “Submit” and “Delete” button for submitting and deleting records. Aesthetically, I kept the
design fairly simple on all of the forms. I used Neilson’s design approach in striving for simplicity and consistency when creating the forms (Neilson, 2000, p. 380). I used gray as the background color and included the OSC’s logo, the mother of Africa symbol. All of the forms had consistent design features in that they had the same background color, font style, font color, font size, and the same logo. The forms are displayed in Appendix E.

Since the majority of the tasks are centered on the student, many forms are launched from this form. The student form prompts the user for the following attributes: Student PID, First name, Last name, MSAT, VSAT, Race, Birth date, Address, City, State, Zip Code, Phone, Email, and Student advisor. There is a “find record” function at the top of the form organized in alphabetical order, allowing the user to search for a particular student. Command buttons link to five separate subforms. These forms include: “Add enrolled courses,” “Add Bi-weekly Visitation Comments”, “Add SAS Session Comments”, “Add Early Warning Report Comments”, and “Add Other Advising/ Extra Curricular Activities”. These forms are synchronized with the student PID attribute from the Student form. If a user wants to add enrolled courses for a student, the “Add Enrolled Courses” form will go directly to the student displayed from the student form. This means the user does not have to do a student search on each individual subform.

Another major form created was the student advisor form, which allows the user to enter advisor information. This form prompts the user for the following attributes: Student PID, First name, Last name, Email address, and Advisor type (GA or MA). This form is similar to the student form in that it has the
Figure 1: Top Level View of Interfaces

Main Switchboard
- Add Student Information
- Add Advisor Information
- Get Reports

Student Information
- Enter Student Attribute:
  - first name, last name, address, email address, phone number, advisor’s name
- Add Enrolled Courses
- Add Bi Weekly Meeting Comments
- Add SAS Sessions
- Add Early Warning Report Comments
- Add Other Activities

Advisor Information
- Enter Advisor Attributes:
  - first name, last name, email address, phone number
- Add Subjects Tutored

Reports
- Student GPAs’
- Advisor’s Students
- Bi-Weekly Visitations
- Final Grades for Students With Early Warning Reports
- Report listing:
  - Student Names, phone #, email address sorted by their advisor
- Report Listing
  - Student Name, Bi-Weekly Visitation Comments
- Report listing:
  - Student Name, EW Report Grade, Final Grade
same “find function” at top of the form, allowing the user to search for a specific advisor. A command button links to a “Subjects tutored” subform allowing the user to add prospective courses that an advisor can tutor.

The third major form allows the user to obtain several different reports based on user input. This will enable the Dean and GAs to access the following reports: Student GPAs, a listing of advisor’s students, Bi-weekly Visitation comments for each student, and final grades from students receiving Early Warning Reports.

In order to centralize the three major forms, I created a main switchboard. This form launches once the database has been opened, and contains the command buttons that launch each respective form. It also includes an “Exit database” command button, which not only closes the database, but also closes Microsoft Access.

**User Evaluations**

I conducted user evaluations to test the usability of the database. I first obtained a list of all the GAs from the Dean. I sent them an email inviting them to participate in my study. The first couple of advisors that responded to my email were given further instruction about participation. I met with participants individually at the OSC in the office reserved for their graduate students. Participants were given a consent form (see Appendix F) discussing the scope and purpose of the project, any potential risks, and reassurance that their participation was strictly voluntary. These future users of the system were asked
to use the database to do several typical tasks using made-up data. Once the users completed the tasks, they completed a brief questionnaire that asked for their opinions of the database’s functionality and ease of use (see Appendix G). I took note of any problems they encountered during the study. The study took each participant roughly 30 minutes to complete.

The following evaluation measures were assessed during and after the study.

1) The number of participants who successfully completed each task. Successfully completing a task was described as completion without any problems or questions.

2) The number of fatal, major, and minor errors made. **Fatal errors** prevented the participant from completing the task or resulted in faulty data being entered into the database. A **major error** was one that caused enough confusion that users would be compelled to ask me how to complete the task. A **minor error** was one that they could recognize and recover from.

3) Observations from the researcher if the participant was having any problems.

4) Observations from the participant, such as:
   - ways they would improve the system
   - their likes and dislikes about the system
   - their ability to navigate through the database intuitively.
Testing Location/Equipment

The equipment used to complete the study included, a desk for the computer, a chair for the participant, another chair for the researcher, a PC workstation with MS Access installed, the actual database, the worksheet with tasks and test data, the questionnaire, and a pen or pencil for the questionnaire.

Results

According to the questionnaire, both participants found the interface easy to use and easy to navigate between interfaces. The participants liked the organization of the database and told me that it would definitely make their jobs much easier. There were no minor or major errors for either of the participants, however there was one fatal error that occurred for both, which stopped them from completing one of the tasks. When asked to enter “Subjects Tutored” for the student advisor form, the “Submit” button would not work. The “Submit” command button was not programmed to add a new record. I have since then corrected the error.

They liked the “find record” feature on the student form, which allowed them to search students in alphabetical order. With the current system, they must search students by student PIDs, but first they must search hard copies of student Bi-weekly Visitation forms to match up the name with the PID. They also liked the idea of tracking student advisors and prospective courses that they can tutor. This was a new feature lacking in the current system.

One concern from one participant was, “Where is the big picture?” She
wanted to know where all of the data was going and if they could see everything on one page. I then showed her print previews of all of the reports and she was satisfied. The current system does not have any reports; they have to manually calculate everything and produce a report on Microsoft Word or Excel. After hearing how the reports work she said that a lot of time will be saved because of this.

I thought the usability testing went well with the exception of the one fatal error. The participants provided no negative feedback or any suggestions for improvement. I also showed the system to the Dean. In general he was very pleased but he had a few suggestions. He wanted a report giving the racial breakdown of all of the participants in the mentoring program and a report showing the average SAT scores by race with current GPAs. He also wanted the mother of Africa symbol replaced with the University logo. His reasoning was that as the program has expanded over the years, it has welcomed other races outside of African Americans. Those changes will be incorporated.

Problems Encountered

One of the biggest problems encountered on this project was staying connected to the Oracle 9i server. This became extremely frustrating. There was no rhyme or reason as to when or why the connection would drop. I received very little help from the Oracle administrators on campus and made the decision to only use Microsoft Access. My main concern was to create a reliable product that required little or no technical support. I knew that once the system was deployed, I would not available to provide support. With this in mind, I
decided the best option would be to create a new Microsoft Access database, using all of the same tables, relationships, and data types used on the Oracle database. The main difference is that the database will be stored on OSC’s server rather the designated Oracle space on the campus wide server.

Another problem I encountered was the shortage of participants for my user evaluation study. My goal was to get three participants, however I was only able to get two out of the nine GAs. I felt that both volunteers were extremely thorough with their feedback, which outweighed the lack of participation from the other advisors.

**Final Comments**

I learned a great deal from this project that will benefit me in the future. Although the database is not linked to the Oracle platform, I now know what steps are involved in creating the DSN and the ODBC driver allowing connectivity from Access. Luckily the scope of this project can allow Microsoft Access as a sufficient platform. I also learned how to interact with both management and end users to complete a functional database system. I think overall this was a great experience, however I would probably say that I was not as disciplined as I should have been in sticking to my timeline.

My next steps are to incorporate the feedback from the Dean, which involves adding two more reports and replacing the existing logo with the University logo. Once this is completed, I will move the database over to the department’s server. According to the Dean, his staff will start using the system starting in the Fall of 2003. He plans on using the same data management
strategies he used with the current system. Data is removed from the database at the end of each academic year. This approach should keep the database from getting too large.

One complaint about the current system was that no one trained the GAs on how to use the database. To resolve this problem, I plan on giving the Dean a user manual that can be used for training his staff for years to come. I also plan on providing the Dean with my email address in case he needs remote assistance next fall.
References


Appendix A: Glossary of Terms

**DSN** – Data Name Source.

**EWR** – Early Warning Reports, which are reports giving to the Graduate Advisors when the student receives below a "C" from an instructor.

**GA** - Graduate Advisors, who monitor minority advisors and at times are referred to freshman students when they receive an Early Warning Report. Graduate advisors work directly under the Dean of the Office of Student Counseling.

**MA** - Minority Advisors, who are upper-class undergraduate students. They are responsible for mentoring and tutoring freshman students.

**ODBC** – Open Database Connectivity.

**OSC** - The Office of Student Counseling.

**PID** – Personal Identification.

**SAS** - Scholastic Advancement Sessions, which are one-on-one tutoring sessions between the minority advisors and freshman students.
Appendix B: OSC ER Diagram
## Appendix C: OSC Data Dictionary

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<td></td>
<td>Required</td>
</tr>
<tr>
<td>SAFName</td>
<td>Student Advisor's first name</td>
<td>Var Char</td>
<td>50</td>
<td>Required</td>
</tr>
<tr>
<td>SALName</td>
<td>Minority Advisor's last name</td>
<td>Var Char</td>
<td>50</td>
<td>Required</td>
</tr>
<tr>
<td>SAPID</td>
<td>Minority Advisor's identification number</td>
<td>Char</td>
<td>9</td>
<td>PK</td>
</tr>
<tr>
<td>SAType</td>
<td>Type of SA (GA, MA)</td>
<td>Char</td>
<td>Default = MA, 2</td>
<td>Check Required</td>
</tr>
<tr>
<td>SAEEmail</td>
<td>Minority Advisor's e-mail address</td>
<td>Var Char</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>SUPERVISES</td>
<td>Table name for recursive student advisors MA to GA relationship</td>
<td>Var Char</td>
<td></td>
<td>CPK= FKS MgrID, EmpID</td>
</tr>
<tr>
<td>MgrID</td>
<td>References student advisor who is a supervisor</td>
<td>Char</td>
<td>9</td>
<td>Required</td>
</tr>
<tr>
<td>EmpID</td>
<td>References student advisor whois supervised</td>
<td>Char</td>
<td>9</td>
<td>Required</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Format</td>
<td>Range/Value</td>
<td>Constraints</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-------------</td>
<td>--------------------</td>
</tr>
<tr>
<td><strong>SUBJ_TUTORED</strong></td>
<td>Table name for subjects taught by SAS</td>
<td></td>
<td>25</td>
<td>PK=FK</td>
</tr>
<tr>
<td>CourseName</td>
<td>Name of a course subject taught by an SA</td>
<td>Var Char</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td><strong>SA_SESSION</strong></td>
<td>Table name for Scholastic Advancement Session (SAS)</td>
<td></td>
<td></td>
<td>FKS= SPID, SAPID,</td>
</tr>
<tr>
<td>SASID</td>
<td>Automatically generated ID for a SAS</td>
<td>AutoNum</td>
<td>9</td>
<td>PK</td>
</tr>
<tr>
<td>SASDate</td>
<td>Date of a specific SA session</td>
<td>Date</td>
<td>mm/dd/yyyy</td>
<td>Required</td>
</tr>
<tr>
<td>CourseName</td>
<td>Course name that is the subject of a SA Session</td>
<td>Var Char</td>
<td>100</td>
<td>Required</td>
</tr>
<tr>
<td>ReferralID</td>
<td>References referring Bi-Weekly Meeting ID</td>
<td>Integer</td>
<td>9</td>
<td>FK</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Advisor's evaluation of a Student after a SA tutoring session</td>
<td>Var Char</td>
<td>250</td>
<td>Required</td>
</tr>
<tr>
<td><strong>BI_WEEKLY_MTG</strong></td>
<td>Table name for Bi-Weekly Visitation Sessions</td>
<td></td>
<td></td>
<td>FKS= SPID, SAPID</td>
</tr>
<tr>
<td>BMID</td>
<td>Automatically generated ID for an advising sessions</td>
<td>AutoNum</td>
<td>9</td>
<td>PK</td>
</tr>
<tr>
<td>BMDDate</td>
<td>Date of a specific Bi-Weekly Meeting</td>
<td>Date</td>
<td>mm/dd/yyyy</td>
<td>Required</td>
</tr>
<tr>
<td>Observations</td>
<td>Observations about student's behavior or circumstances</td>
<td>Var Char</td>
<td>3500</td>
<td>Required</td>
</tr>
<tr>
<td>Result</td>
<td>Action or referral taken as a result of a counseling session (SAS referral,</td>
<td>Var Char</td>
<td>20</td>
<td>Check Required</td>
</tr>
<tr>
<td></td>
<td>further advising, GA referral, no further counseling)</td>
<td></td>
<td></td>
<td>Required</td>
</tr>
</tbody>
</table>
Appendix D: Creating an ODBC Driver and Data Source Name

1) Log onto the workstation as the local administrator.

2) From the start menu, select Administrative Tools and click on Data Sources (ODBC).

3) From the ODBC Data Source Administrator window, click on “Add” and select the “Oracle ODBC Driver”.

4) A dialog box comes up to specify the Data Source Name, Username, and Server Name.


6) From the File menu, select “Get External Data”, and click on “Link Tables”.

7) Change the file type to “ODBC databases” and a dialog box will launch. Select the “Machine Data Source” tab.

8) Select the Data Source Name created earlier and click “ok”.

9) At the prompt, enter username, password, and server name.

10) Once connected to the Oracle 9i server, select the tables that need to be linked.
Appendix E: Database Interfaces

Student Form

THE OFFICE OF STUDENT COUNSELING

Student Information

Find Student

Student PID: 123456789
Firstname: Tung
Lastname: Morris
MSAT: 500
VSAT: 450
Race: African American
Birthday: 07/03/1993

Address: 123 Hinton James Dorm
City: Chapel Hill
State: NC
Zip: 27701
Phone: (919) 345-9294
Email: test@email.com
Advisor: Ruley, Tonya

Submit
Close Form
Student Forms with Sub Forms
Student Advisor Form

**Advisor Information**

- **Find Advisor:**

- **PID:** 123545644
- **Firstname:** Tonya
- **Lastname:** Ruley
- **Email:** ruley@test.com
- **GA or MA:** MA

**Subjects Tutored**

- **CourseID:**
  - ENGL 11
  - MATH 18

**Record:** 1

Submit
Close Form
THE OFFICE OF
STUDENT COUNSELING

REPORTS

- Student GPA's
- Advisor's Students
- Bi Weekly Mtg Comments
- Final Grades for Students w/ EW Reports
- Go Back to Switchboard

Close Form

THE OFFICE OF
STUDENT COUNSELING

MAIN SWITCHBOARD

- Add/View Student Information
- Add/View Advisor Information
- Get Reports
- Exit Database

Main Switchboard
Enrolled Courses Forms

Bi-Weekly Visitation Form
Extra Curricular Activities Form

[Image of a form with fields for name, contact information, and purpose]
Appendix E: Email Recruitment

Subject: OSC Database Evaluation Study

Dear Participant’s name:

My name is Obire “Obi” Mojuetan and I’m currently developing a database prototype for the Office of Student Counseling. I’m a graduate student in the School of Information and Library Science. For my Master’s project, I need your help in evaluating the database by participating in my study. Dean Woodard passed your name to me as a future end user of the database. From your feedback I will be able to refine the database prototype to fit your needs better.

The study will take approximately 30 minutes of your time. You will be asked to perform five major tasks:

- Enter new student information such as first name, last name, advisors, courses, etc.
- Search for a specific student.
- Enter minority advisor information such as first name, last name, phone number, etc.
- Add enrolled courses for a specific student
- Add course taught by a specific advisor.
- Create a report that lists all freshman students' GPA’s.

After completing these tasks, you’ll be given a questionnaire that asks for your opinions about the ease of use and functionality of the system, and any suggestions that you think would improve the system.

I hope that you agree to participate in my study. Your responses will be summarized and will only be used to refine the database prototype. In no way will your responses in the final write up be attributable to you. In addition, at no point will Dean Woodard be informed if you choose not to participate.

In order to participate, please email me m_obire@hotmail.com or call me at (919) 638-0758 by March 3, 2003.

Thank you.
Appendix F – Consent Form

You're invited to take part in the Office of Student Counseling’s (OSC) database study. As you already know, the Office for Student Counseling (OSC) offers academic and personal support to all UNC students. OSC’s primary objective is to sponsor programs and activities that promote academic excellence, increase retention, and improve the campus climate for diversity among Native American and African American undergraduates. The Dean of OSC has requested the development of a database that will serve as an academic performance and monitoring system. This system will track the academic performance of freshman minority students and their participation in OSC programs and services. Obire Mojuetan, a Master’s Degree candidate from UNC's School of Information and Library Science, will be conducting the study.

Purpose:

The main purpose of this study is to evaluate the user interface of OSC’s database for functionality and ease of use. The evaluations will be used to refine the database prototype for deployment.

What Will Happen During the Study:

This is what will happen during the study.

1. I will ask you to complete 5 tasks.

2. These tasks will include:

   - Enter new student information such as first name, last name, advisors, courses, etc.
   - Search for a specific student.
   - Enter minority advisor information such as first name, last name, phone number, etc.
   - Add enrolled courses for a specific student
   - Add course taught by a specific advisor.
   - Create a report that lists all freshman students’ GPA’s.

3. I will watch you while you take part in your activities during the study and take notes about any problems you encounter.

4. I will ask you to complete a brief questionnaire asking for your opinion on the functionality and ease of use of the database.

I expect our session to take approximately 30 minutes.
If you have any questions or concerns about being in this study, you should contact Obire Mojuetan (919) 638-0758 or at obi@email.unc.edu.
Your Privacy is Important:

- I will make every effort to protect your privacy.
- I will not use your name in any of the information we get from this study or in any of the research reports.

Risks and Discomforts:

I do not know of any personal risk or discomfort you will have from being in this study.

Your Rights:

- You decide on your own whether or not you want to be in this study.
- You will not be treated any differently if you decide not to be in the study.
- If you decide to be in the study, you will have the right to stop being in the study at any time.
- If you decide not to be in the study or to stop being in the study, you will not be penalized in any way.

Institutional Review Board Approval:

- The Academic Affairs Institutional Review Board (AA-IRB) at The University of North Carolina at Chapel Hill has approved this study.
- If you have any concerns about your rights as a participant in this study, you may contact the AA-IRB at (919) 962-7761 or at aa-irb@unc.edu. You may also contact my advisor, Stephanie W. Haas at 919-962-8360 or stephani@ils.unc.edu

I have had the chance to ask any questions I have about this study, and they have been answered for me.

I have read the information in this consent form, and I agree to be in the study. There are two copies of this form. I will keep one copy and return the other to the investigator.

_________________________                     _________________________
(Signature of Participant)                                            (DATE)
Appendix G: OSC Database Questionnaire

1) Is the interface easy to use?

Very easy_____ Somewhat easy_____ Somewhat difficult_____ Very difficult _____

2) Is the database easy to navigate between interfaces?

Very easy_____ Somewhat easy_____ Somewhat difficult_____ Very difficult _____

3) What do you like about the interface?

4) What do you dislike about the interface?

5) What changes to the interface would make your job easier?

6) What is needed that the database doesn't provide?

7) Please provide any other comments about the database below.