Analysis of Academic Advising in Nigerian Universities

S.C. Chiemeke and E. Nwelih
Department of Computer Science, Faculty of Physical Sciences,
University of Benin, Benin City, Nigeria

Abstract: The main objective of this research is to study the problems of the current student course advising process in Nigerian Universities and to investigate the feasibility of developing an Internet based system for advising undergraduate students on course selection in the Faculties/Departments. In the research methodology, a survey was used for data gathering and the results from the survey shows that students and lecturers are unsatisfied with the current process and will use an internet-based course advising, if implemented.

Key words: Internet based systems, course advising process, decision support system, Nigerian Universities

INTRODUCTION

Academic advising is a collaborative process between student and adviser, leading to the exchange of information that encourages the individual student to make responsible academic and career decisions. The process of advising students is an important and time-consuming task. Different tools and techniques can be employed to make it an effective and efficient process. Most of the academic advising process in Nigerian universities relies on personal interactions between students and lecturers which lead to problems such as:

- Inconsistencies among different course level advisers in the use of advising rules and procedures
- A good portion of the advisor's time is spent answering the same questions over and over again.
- There is always traffic in course adviser's office during critical periods such as registration of courses.
- Errors in the filling of the required forms online and
- Clashes in scheduling of class activities for the session

These problems, if not properly attended to could lead to frustration, dissatisfaction and delay in student graduation process. To this end, we are looking at the possibility of an internet-based course advising process using Decision Support Systems (DSSs), which is an interactive computer-based system that will aid users in judgment and choice activities. In order to examine the root causes of these problems, a survey was developed to gather more information regarding the problems.

However, with the advantage of advances in technology, the feasibility of developing an Internet-based Advising System as an alternative to the current advising process merits investigation. Such a system if implemented might help reduce the current constraints. Instead of consulting with a faculty/departmental adviser, students will be able to obtain advice on courses needed through the advising system. With Internet capability, students will be able to access the system on a constant and regular basis. Students should be more satisfied with the quality and convenience of results. Therefore, another survey was conducted to examine the opinions of both students and lecturers on the use of the system if implemented.

Background: Due to the rapid growth of a medium-size university in Nigeria over the past several years, there have been complaints regarding the student advising process. The ratio of students per advisor is high and increasing as the student population increases. This large ratio of students per advisor has resulted in inadequate and inappropriate advice to students. The advising process is a complex decision process that requires numerous qualitative judgments. Due to the large number of potential advices, it is not trivial and cannot be solved with common sense. This mix of objective and subjective inputs, along with its use of heuristic rules for determining the direct route of the courses required to take towards the graduation, makes advising decision support a prime candidate for this research study (Changchit et al., 2002).

Workload assignment to departmental academic staff is an important activity that is based on the number of

---

Correspondig Author: S.C. Chiemeke, Department of Computer Science, Faculty of Physical Sciences, University of Benin, Benin City, Nigeria

course groups necessary for a forthcoming semester. Knowledge of the number of students expected in each course is vital in determining the departmental teaching workload and achieving its planning and distribution.

This knowledge leads to good resource planning and prevents any last minute changes to workload assignment of staff or opened course groups (Deniz *et al.*, 2002). Academic decision-making is a necessary part of university administration. Accurate and timely information is of paramount importance for informed decision making. Too often, the information is not available to decision makers in a useful form or the available data has not been evaluated sufficiently to reveal hidden or crucial details. Universities need to have extensive analysis capabilities of student achievement levels in order to make appropriate academic decisions. Conversely, certain academic decisions will lead to changes in academic performance, necessitating periodic assessment for the determination of the effect of changes. The study of academic decision-making process, effective resource management, personnel administration, automation of student registration, factors determining retention, graduation and dismissal have always been of great interest to educationists (Deniz and Ersan, 2001).

Universities world-wide tend to have a hierarchical structure consisting of faculties, degrees and courses. (Vinnik and Scholl, 2005). In their research, they looked at the academic processes in terms of educational supply and demand relationships, with faculties as suppliers of educational services and students as their consumers. Kassicieh *et al.* (1986), discusses the political issues of allocation as set by policies or the informal organization and how the success of the design and implementation of systems depends on adherence to these policies but at the same time providing the decision-maker with the flexibility and information to effect changes when these changes become necessary.

Unlike present systems in use in Nigeria Universities, the type of the system investigated for its feasibility in this study will provide an interactive advising experience. It will be developed as an Internet-based application with the advantage that it is appealing to course advisers and students, also constitutes the way they prefer to interact. The system will also give an open-enrollment atmosphere and the online feature allows students to consult with the system at their convenience-during the workday, at night, or on weekends.

MATERIALS AND METHODS

The research methodology involves surveying the present course advising system in Nigeria Universities to gather information regarding the problems with current advising processes as well as the likelihood that students would use the Internet-based advising system if designed and implemented. In order to encourage the responses from students, we distributed questionnaires to a randomly selected Nigerian Universities in three geo-political zones. There are six geo-political zones in Nigeria. These areas were selected because they have ICT departments and portals that enable the students to register online, as we are trying to get the perceptions of the course advising system from computer science students. It was decided that by focusing on one of the five departments in the Faculty of Physical Sciences in the University of Benin, we could get a clearer picture of the adequacy of the current system. Students will be asked a number of demographic questions and others relating to previous advising experiences at the University. Then a series of items will be included for respondents to rate their agreement/disagreement on a five-point Lickert scale, with 5 = strongly agree and 1 = strongly disagree. The responses for the survey will be summarized with results and discussion.

The aim of this questionnaire, is to verify the feasibility of using an internet-based advising system for advising undergraduate students on course selection in Nigeria Universities. And the likely hood that course advisers and student will prefer an intent-based course advising system if one was available.

RESULTS AND DISCUSSION

Finding from the respondents: The finding from the frequency in the Table 1-4, showed that: From Table 1, out of the 62 valid responses received, the mean of the respondents showed that 3.60 would use an alternative means of course advising if one were available, 4.15 agree that it will be beneficial to have the advising system on-line and 4.19 agree that if the internet-base advising system is available, they will use it. From Table 2, the statistics of course level advisers that would use an alternative means of course advising if one were available, showed that out of 62 responses received, 1.6% strongly disagrees, 11.3% disagrees, 29.0% undecided, 41.9% agrees, while 16.1% strongly agrees. From Table 3, the course level advisers' responses to the questions states that it will be beneficial to have the advising system on-line. The valid percent of the respondents showed that 1.6% strongly disagrees, 8.1% disagrees, 12.9% undecided, 29.0% agrees while 48.4% strongly agrees. From Table 4, the course level advisers responses to the question if the internet-base advising system is available and will use it. The valid percent of respondents showed

Table 1: Statistics of course level advisers respondent

Valid	I would use an alternative means of course advising if one were available	Will it be beneficial to have the advising system on-line	If the internet-base advising system is available, I will use it
N	62.00	62.00	62.00
Missing	0.00	0.00	0.00
Mean	3.60	4.15	4.19

Table 2: Statistics of course level advisers that would use an alternative means of course advising if one were available

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	1	1.6	1.6	1.6
Disagree	7	11.3	11.3	12.9
Undecided	18	29.0	29.0	41.9
Agree	26	41.9	41.9	83.9
Strongly agree	10	16.1	16.1	100.0
Total	62	100.0	100.0	

Table 3: Statistics of course level advisers responses to the question will it be beneficial to have the advising system on-line?

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	1	1.6	1.6	1.6
Disagree	5	8.1	8.1	9.7
Undecided	8	12.9	12.9	22.6
Agree	18	29.0	29.0	51.6
Strongly agree	30	48.4	48.4	100.0
Total	62	100.0	100.0	

Table 4: Statistics of course level advisers response to the question If the internet-base advising system is available, will you use it?

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	4	6.5	6.5	6.5
Undecided	8	12.9	12.9	19.4
Agree	18	29.0	29.0	48.4
Strongly agree	32	51.6	51.6	100.0
Total	62	100.0	100.0	

Table 5: Statistics of students' respondent

Valid	I would use an alternative means of course selection advising if one were available	It is beneficial to have the advising system on the internet	If the internet-base advising system is available, i will use it
N	188.00	188.00	188.00
Missing	0.00	0.00	0.00
Mean	3.87	4.26	4.46

Table 6: Statistics of students who would use an alternative means of course selection advising if one were available

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	11	5.9	5.9	5.9
Disagree	12	6.4	6.4	12.2
Undecided	30	16.0	16.0	28.2
Agree	73	38.8	38.8	67.0
Strongly agree	62	33.0	33.0	100.0
Total	188	100.0	100.0	

Table 7: Statistics of students that says it is beneficial to have the advising system on the internet

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	5	2.7	2.7	2.7
Disagree	4	2.1	2.1	4.8
Undecided	19	10.1	10.1	14.9
Agree	69	36.7	36.7	51.6
Strongly agree	91	48.4	48.4	100.0
Total	188	100.0	100.0	

Table 8: Statistics of students that says if the internet-base advising system is available, I will use it

Valid	Frequency	(%)	Valid (%)	Cumulative (%)
Strongly disagree	1	0.5	0.5	0.5
Disagree	4	2.1	2.1	2.7
Undecided	14	7.4	7.4	10.1
Agree	57	30.3	30.3	40.4
Strongly agree	112	59.6	59.6	100.0
Total	188	100.0	100.0	

that 6.5% strongly disagrees, 0.0% disagrees, 12.9% undecided, 29.0% agrees while 51.6% strongly agrees.

The finding from the frequency in the Table 5-8, show that: from Table 5 out of the 188 valid responses received, the mean of the respondents showed that 3.87 would use an alternative means of course advising if one were available, 4.26 agree that it is beneficial to have the advising system on the internet and 4.46 agree that if the internet-base advising system is available they will use it. From Table 6, the valid percent of the respondents showed that 5.9% strongly disagrees, 6.4% disagrees, 16.0% undecided 38.8% agrees while 33.0% strongly agrees. From Table 7, the responses received from the question if it will be beneficial to have the advising system on-line and the valid percent of respondents showed that 2.7% strongly disagrees, 2.1% disagrees, 10.1% undecided, 36.7% agrees while 48.4% strongly agrees. From Table 8, the response received from the question if the internet-base advising system is available will you use it? The valid percent of the respondents showed that 0.5% strongly disagrees, 2.1% disagrees, 7.4% undecided, 30.3% agrees while 59.6% strongly

agrees. The findings from both frequency Table 1-8 showed that course advisers and students will use the internet-base advising system if one is available.

CONCLUSION

In this research, we looked at the findings from both students and course level advisers; the frequency Table 1-8 showed the problems with the current student course advising processes. Most of the course level advisers and student seem to be dissatisfied with the current system. About 58.0% of the course level advisers say they would use an alternative means of course advising if one were available, 77.4% agree that it will be beneficial to have the advising system on-line and 80.6% say that if the internet-base advising system is available they will use it. About 71.8% of the students say they would use an alternative means of course advising if one were available, 85.1% agree that it will be beneficial to have the advising system on-line and 89.9% say that if the

internet-base advising system is available they will use it. This study correlates positively with the study of Changchit *et al.* (2002).

REFERENCES

Changchit, C., R.J. Vokurka and I. Burda, 2002. The Student Advising Process: Problems and Opportunities. www.isedj.org/isecon/2002/254d/ISECON.2002.Changchit.txt.

Deniz, D.Z. and I. Ersan, 2001. Using an Academic DSS for Student, Course and Program Assessment. The international Conference on Engineering Education, Session 6B8, Oslo, Norway. www.ineer.org/Events/ICEE 2001/Proceedings/Papers/264.pdf.

Deniz, D.Z., M. Uyguroglu and H. Yavuz, 2002. Departmental workload administration using group forecasting in universities. International Conference on Engineering Education. Manchester, U.K. www.ineer.org/Events/icee2002/programme/default.asp.

Kassicieh, S.D. Burleson and R.J. Lievand, 1986. Design and Implementation of a Decision Support System for Academic Scheduling. Inform. Manage., 11 (2): 57-64.

Vinnik, S. and M.H. Scholl, 2005. Decision support system for managing educational capacity utilization in universities. Proceeding of the TED Conference on e-Government (TCGOV2005), Bozen-Bolzano, Italy. www.inf.uni-konstanz.de/cgip/bib/files/ViSc05b.pdf.