Development and Implementation of a Digital Data Collection Method for Graduating Senior Exit Surveys

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Graduating senior exit surveys are valuable assessment tools and have an important role in quality assurance and improvement processes for higher education programs. Development and implementation of such surveys are often resource and time intensive and require detailed design to address accuracy and confidentiality issues. When paper based survey tools are used, the manual processing of the collected information also becomes a challenge. This paper describes the development and implementation of a non-web based digital data collection method that uses standards Microsoft Office programs. The development of the survey form, data processing, and analysis procedures are described in detail including a discussion of the important issues to be addressed in distribution of the forms and reporting of the results.

Keywords: construction education, outcome assessment, performance metrics, graduating senior exit surveys, academic quality plans

Introduction and Background

Quality assurance and continuous quality improvement have become dominant management emphases for universities and academic programs. National and regional accrediting bodies are emphasizing quality improvement, and outcome assessment programs have become routine for most universities. .For example, The American Council for Construction Education, the accrediting body for programs of construction higher education, defines quality assurance and improvement requirements under "Program Quality and Outcome Assessment" section of its standards as [ACCE, 2006]:

"The construction education unit must have an academic quality plan identifying the process used for the continuous improvement of the construction education program...The construction education unit's academic quality plan will form the basis of empirically assessing the stated outcomes of the program. Assessment input should be obtained from the unit's constituencies, including students, graduates, employers, benefactors, the construction industry, and the program planners (faculty, staff, and administrators). The plan/process should define the quality assessment cyclic process....The planning and evaluation process of the academic quality plan must contain measurable outcomes; a systematic means of collecting, quantifying, and analyzing data relevant to those outcomes; development of conclusions based on the data collected; and program modifications, when deemed appropriate to improve the program."

Given this requirement for an "Academic Quality Plan" and a systematic "Outcome Assessment" process, programs must utilize a set of data collection tools to enable gathering the data necessary which will lead to program improvement decisions and implementation. These may include tools such as alumni surveys, individual course instructor evaluations, advisory council feedback, graduating senior exit surveys, certification or competency examination, accreditation visit reports, faculty annual reviews, tenure and promotion procedures, student chapter feedback, career fair feedback, and college/program surveys (for facilities, space allocation, etc.).

This paper focuses on one of the Outcome Assessment tools; the graduating senior exit survey. In this paper, development and implementation of a digital data collection method is described and illustrated that uses a non-web-

based system with standard Microsoft Office programs. The development of the survey form, data processing, and analysis procedures are described in detail including a discussion of the important issues to be addressed in distribution of the forms and reporting of the results.

Graduating Seniors Exit Surveys

The graduating student exit surveys are valuable assessment tools, as they contain the views of students who are about to complete the program with their observations on curriculum, faculty, facilities and career placement fresh in their minds. For smaller programs, with modest numbers of graduating seniors, it is possible to conduct personal, face-to-face exit interviews in a very detailed manner. However, for larger programs, this becomes a resource intensive task and these programs may need to use a paper based survey tool or perhaps some combination of the two.

There are two special challenges that have to be considered and addressed carefully for any survey tool insuring accurate and meaningful responses and maintaining confidentiality of the responses and the survey tool. With graduation in sight, students tend to lose focus and often do not provide meaningful and complete responses. It may help improve the quality of responses if the exit surveys are implemented as a part of a graduation checklist or a requirement of a final class. At the same time, the students have to be comfortable that the information provided will be kept in strictest confidence such as the starting salaries, student loans and evaluation of faculty. Selection and design of the survey tools become very critical to address these issues properly.

The Department of Construction Science at Texas A&M University has been conducting exit surveys for graduating seniors for a decade. The data collection and analysis tools for the survey have been evolving over time from paper-based survey forms to digital files as an email attachment. In the last few years, blank survey forms were provided by email as a class assignment in a graduating senior seminar. Seniors were coached on the importance of the data provided and urged to provide a complete and thoughtful response. To establish an anonymous and confidential system, students filled out the survey forms using a word processor and provided a printout as their response without any personal information. The responses were then processed manually where spreadsheets were populated using the received data as accurate as possible. Several reports were generated based on these spreadsheets.

This method, however, is very labor intensive in terms of data processing. Since the survey forms are not fully controlled for input, the responses often lack the desired level of detail or include several errors. To address these problems and improve the accuracy, level of detail and speed of data collection and processing, a non-web based digital data collection method was developed and implemented in Spring 2006 semester.

It should be noted here that there are several web-based survey tools that can be utilized for this purpose (for example [Mak, Yoo, and Frezza, 2003] and [Zoomerang, 2006]). Although the web-based tools provide advantages in terms of data collection and analysis, they also present several application challenges for distribution, design and management. If a third party service provider is used, the survey design tools are limited to the service provider's portfolio and often are difficult to customize. The distribution may also be problematic since the email messages that request survey information could end up in "Junk Mail" directories. If an in-house system is used, dedicated resources are needed for maintaining the server system and creating user IDs and password for the students in addition to the distribution and design challenges. The digital data collection tool described in this paper utilizes standard Microsoft Office package programs (Word and Access) and the entire application can be handled on a regular personal computer.

Data Collection and Analysis Methodology

The non-web based digital method utilizes password protected Microsoft Words Forms for data collection and a Microsoft Access database for processing and analysis. Figure 1 illustrates the process flow for the graduating exit survey method.

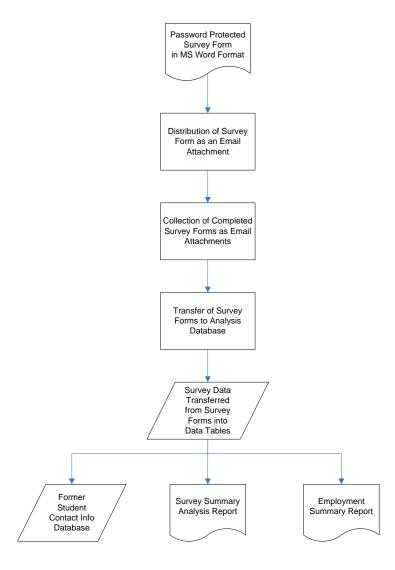


Figure 1. Graduating Senior Exit Survey Process Flow

The exit survey process starts with the development of the survey form. The forms are then emailed to the students using an anonymous email account (exitsurvey@*******edu) as an attachment. The students are asked to complete and email back their responses as an attachment to the same address. The attached files are then transferred into an access database for processing and analysis. The processed data is used to prepare two summary reports as well as a former student contact information database.

Survey Structure

The exit survey form is a dynamic document in terms of its contents and level of detail. The changes in the program structure, curriculum, strategic plan and academic quality plan dictate the modifications to the exit survey form to collect different data or to reformat the data for analysis. The current exit survey structure consists of five primary sections including:

- 1. Contact Information
- 2. Educational Experience
- 3. Work Experience and Financial Support
- 4. Job Placement
- 5. Additional Comments and Suggestions

The first section of the survey aims to create a database to maintain contact with the graduates. In the previous paper-based survey methods, this was a separate and challenging task since the survey forms were collected without any personal information because of the confidentiality reasons. In the new survey method, the personal information is separated from the response data automatically before the data is processed therefore creating an confidential environment.

The second section of the survey focuses on the educational experience including student GPA, program entry (important for recruiting and enrollment management), strengths and weaknesses of the program, feedback for the internship program, department administration, course evaluations for importance and effectiveness (critical comparative data for curriculum review), faculty evaluations for effectiveness (important data point for overall faculty evaluation), and student organizations.

The third section provides information about the work experience and financial support. The financial information is the focus of this section that has impact on class scheduling, scholarship generation, and work placement. It is also useful in soliciting monetary support from the industry and potential donors.

The fourth section includes the job placement information with specific feedback on interviews, job offers, placement and important factors in making their final decision. This information enables improvement to Career Fairs and other placement activities.

The students are also provided with an open comments and suggestion section. This section provides a platform for the students to express any feedback that may not be covered in any other section or a overall observation about the program.

It should be noted that the survey structure utilizes several formats for data input including specific questions, five-point scale ratings and comment sections to control the responses and the level of detail. A five-page sample survey form is included in Appendix A.

Development of Survey Form

Based on the five sections of the survey structure, the survey form is developed in Microsoft Word using the form field tools. The form tools in Microsoft Word includes textbox fields, checkbox fields, drop-down menu fields, labels, radio buttons, slider boxes, combo menus, push buttons and toggle buttons [Microsoft, 2006]. The form developed for the exit survey uses only two of these options; textbox and checkbox fields.

The reason for this limited selection is two-fold. The first reason is to keep the fields visible at all times with a uniform structure throughout the survey. Using fields that require more than one click, such as the dropdown menus, often result in poor response from the survey participants. The second reason is to avoid any macros within the document. When certain elements, such as button structures, are included in the document, a macro is automatically created to define the action when the button is pressed. Under controlled network systems, macros are often disabled because of the security and virus protection reason and the user often do not have administrative privileges to overwrite this control.

Once the survey for is developed using textbox and checkbox fields, the document is password protected. The password protection option locks the entire document other than the defined fields. In other words, users can fill the survey form, save it to their computer as a word file but cannot change the structure, format or the wording of the textual information within the document. Figure 2 shows a screenshot of the survey form as it is opened in Microsoft Word.



Figure 2. Password Protected Survey Form Data Fields

The fields that are editable are marked with gray shades and the users can move from one field to another using the tab button. In Figure 2, the GPA field is created as a textbox using a numerical format with two decimals. The other textbox fields are formatted for "all caps" option with black fonts to distinguish between the labels and user input. The checkbox fields are marked with a single mouse click. Each form field is assigned a "bookmark" to identify the data field and transfer into a database.

Data Collection and Processing

The password protected survey form is emailed to graduating seniors as an attachment. A senior seminar class is utilized for the distribution of the survey which enables an additional control measure for higher percentage of response. The students complete the document, save it to their computers and email a copy to the address created for the survey. The Microsoft Outlook Exchange Server system maintained by the university is used for the collection of the email responses.

To process and analyze the responses, a Microsoft Access database is designed to retrieve and maintain the survey data. A Visual Basic macro within the database is developed to retrieve the survey data for the Microsoft Word files. The macro separates the personal information from the survey data to secure the confidentiality of the survey process. The macro uses Word.Application and doc.FormFields functions to open the document and transfer the data into data tables based on the "bookmarks" defined in the survey form. For example, to retrieve the data from Word field bookmarked as "gpa" into the Access data field "gpa" the following code can be used:

```
.AddNew
!gpa = doc.FormFields("gpa").Result
.Undate
```

Once the survey data is placed in tables, the information takes a flexible and portable format. There a several options for data analysis using the tables including defining report structures within the database, exporting data into spreadsheets or word documents. This survey method utilizes the export option because of the dynamic nature of the survey form. It is not practical to prepare structured reports within the database since the survey form and contents change every semester. A combination of spreadsheet and word export proved to be satisfactory for this application.

Summary Analysis and Documentation

The information retrieved from the survey forms are used for creating a contact information database and two analysis documents. The first document is an employment summary report that includes descriptive statistics on number of graduates and starting salaries. This report also includes the names of the companies and number of students hired by that company. Primary use for this report is providing information for companies willing to recruit our students as well as a comparative track of the job market. When this report is presented, the starting salary data is summarized for multiple years and simply making this data available to employers creates an adjustment for starting salaries offers; most companies choose to offer something better than the average starting salary from the previous semester. A sample employment summary report can be found in Appendix B.

The second summary report is a detailed analysis of all the information retrieved from the survey forms. This report is made available to program leadership which also serves as input to other assessment tools. It should be noted that this report includes all of the comments from the students without any modifications which creates a direct reflection of the responses. Although, not grouping or summarizing the comments result in a lengthy report, the emphasis of the feedback is preserved. For example, if the student answers the question for "four areas that the program can improve" as "1. More computer applications, 2. More computer applications, 3. More Computer Applications, 4. More Computer Applications", keeping the response without modification will have a more powerful effect than a simple statement of "More Computer Applications." A sample analysis summary report is shown in Appendix C.

Conclusion

Graduating senior exit surveys are powerful outcome assessment tools that need to be tailored to the program's needs and constantly revised and updated. Implementation of such surveys are challenging in terms of required resources and time, especially for larger programs with considerable number of students. The collection and processing of data also presents time consuming tasks. It becomes difficult to maintain the level of detail and accuracy of the information as well as the proving confidentiality. This paper describes a non-web based digital data collection method for exit surveys that automates the data collection and processing tasks.

There are several advantages of utilizing this method. First of all, the distribution and retrieval of the survey forms are done through a simple email communication using an anonymous address. Unlike the web based systems, this procedure does not require any server applications or assignment/maintenance of user IDs and passwords. The students can save the form to their computers and are able to edit and modify their responses over time. When they complete the survey, they send a copy back to the anonymous address.

The form is designed as a password protected Microsoft Word file which makes it possible to create compact and highly controlled surveys. With the fields defined the form the data input is minimized to simple point and click functions and basic typing. The survey information received from the students are then transferred into a database where the personal information is separated from the evaluations. Once the information is placed in data tables, there are several analysis options available including database reports and export functions.

The retrieval and analysis of data only requires a few hours once the student responses are received through emails. Compared to a paper based survey method, this provides considerable advantages in terms of time and resources. The data storage and analysis are performed on a regular personal computer which is an important advantage for security reasons. Other than the email communication, the data set is exposed to any online platform that may be vulnerable.

References

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Appendix A

Sprii nfor	ng 06 graduat mation provide	e, please comp d will be held in	cience requires you plete this survey ar a strictest confidence dditional completion	nd email it as be. Summary	an attachm data, WITH	ent to exitsury NO LINK TO	ey@******* ANY INDIVI	edu before May DUAL, will be co	1, 06. The
co	NTACTIN	FORMATION	ON	(This inf	ormation v	vill be added	to our Fo	rmer Student D	Database)
lam	е	First:		MI:	Last:			Suffix	C:
dd	ress after	Street:							
graduati		City:		State:		Zip:			
		Phone:		Fax:		Email:			
	UCATION. What is your cu		IENCE						
	How did you be		I started as a	Construction Sci	ence Maior				
Construction Science Major?		cience Major?	H <u>=</u>	om another maj		Major:			
		I transferred from another school.			Major: School:				
	Please list four		a.						
	the Construction Science program:		b.						
			C.						
			d.						
	Please list four	areas where	a.						
	you would like Construction S		b.						
	program impro		C.						
			d.						
	What company internship with								
	What is your pe the internship i								
	Evaluate the De general activiti			VERY EFFECTIVE (5)	(4)	SOMEWHAT EFFECTIVE (3)	(2)	NOT EFFECTIVE (1)	NO OPINION
			Student Advising						
			Student Placement						
			Field Trips						
			Outside Speakers						
			Administrative Staff						
			Comments						

Figure 3. Sample Graduating Senior Exit Survey – Page 1 $\,$

8.			DID	VERY		PORTA		NOT	VERY		CTIVE		NC
	required courses. For each course, rate your perception		NOT TAKE	(5)	(4)	(3)	(2)	(1)	(5)	(4)	(3)	(2)	(1
	as to the importance of the course as it addresses your	COSC 153 INTRO											
	future goals, then rate the course as to its	COSC 253 M & M I											
	effectiveness.	COSC 254 M & M II											
		COSC 275 EST I											
		COSC 321 STRUCT I											
		COSC 323 SOILS											
		COSC 325 ENVI											
		COSC 326 ENV II											
		COSC 351 EQUIP											
		COSC 353 PROJ MAN											
		COSC 375 EST II											
		COSC 381 SEMINAR											
		COSC 421 STRUCT II											
		COSC 422 STRUCT III											
		COSC 440 CAPSTONE											
		COSC 441 CAPSTONE											
		COSC 442 CAPSTONE											
		COSC 444 CAPSTONE											
		COSC 446 CAPSTONE											
		COSC 455 ALT DEL											
		COSC 463 LAW											
		COSC 464 SAFETY											
		COSC 465 LAW											
		COSC 475 SCHED											
		COSC 477 CONTROLS											
		COSC 483 SEMINAR											
		COSC 484 INTERN											
		COSC 494 INTERN											
		Comments:											

Figure 4. Sample Graduating Senior Exit Survey – Page 2

Evaluate faculty / staff based			VERY EFFECTIVE		SOMEWHAT EFFECTIVE		NOT EFFECTIVE	DID N HAV
on your experience in the program.			(5)	(4)	(3)	(2)	(1)	ПА
	Dr. *****	*****						
Evaluate each faculty member NOT THE COURSES	Dr. *****	*****						
TAUGHT	Ms. ****	****						
	Ms. ****	******						
	Dr. *****	*****						Г
	Dr. *****	*****						
	Mr. ****	*****						

	100000000000000000000000000000000000000	******						
	170000000	******						

		******						[

	2002/1001	*****						
	Dr. *****	*****						L
	Dr. ****	*****						
		Comments:						
Evaluate the quality of student organizations.		DUES PAYING	EXCELLENT		QUALITY OF OF SATISFACTORY	RGANIZ	ATION UNSATISFACTORY	NO
student organizations.		MEMBER	(5)	(4)	(3)	(2)	(1)	OPIN
	ABC							
	AGC							
	AIC							
	DBIA							
	MCA							
	MECA							
	NAHB							
	SWIC							
	SLX							
		Comments:						

Figure 5. Sample Graduating Senior Exit Survey – Page 3

WORK EXPERIENCE AND	FIN	ANCIAL	SUPPO	PRT							
11. Work experience during school.		I have worke	d outside in n	ny last two	years	Н	lours pe	er week:			
		It was in a co	onstruction-rel	lated area							
12. Student Loans & Grants.		I took out stu	dent loans to	help finan	ce my e	ducation	n				
		I received stu	udent grants (other than	scholar	ships) to	o help f	inance my	educati	on?	
	,	After graduati	on, what is th	e estimate	ed amou	nt of stu	ident lo	ans that y		\$	
13. Student Scholarships.		NAME								AMOL	JNT
Please list the scholarships you	a.									\$	
were awarded during your last three years at TAMU.	b.									\$	
three years at TAMO.	C.									\$	
	d.									\$	
JOB PLACEMENT											
14. How many 1st job interviews did you have (approx)?				Of those	e, how	many v	vere th	nrough	? Car	eer Fair: Other:	
15. How many 2nd interviews did you have (approx)?											
16. How many written job offers did you receive?											
17. Please list the companies that		COMPAN	IY NAME						BASE	SALA	RY OFFER
gave you a written offer.	a.								\$		
	b.								\$		
	C.								\$		
	d.								\$		
18. Who are you going to work for:	Comp	any Name:									
	Locati	ion:				P	osition:				
		completed r	my internship	with this c	ompany						
19. What is your initial salary?	Base	Salary:			\$						
	Initial	Bonus (signi	ng, relocation	, etc):	\$		F	or:			
	Other	(truck allowa	nce, phone,	etc.):							
20. Which sector of the industry will you be working?	R	esidential	Commerc	ial 🔲 I	ndustria		Heavy/	Highway	☐ Sp	ecialty (I	Elec/Mech etc.
you be working.	OTHER (Specify):										
21. Evaluate the importance of the	91111	(ор ссу).				VER	Y	S	OMEWH.	ΔΤ	NOT
following reasons for taking						IMPOR	TANT	10	PORTA	NT	IMPORTANT
employment with the company you chose.	Locati	on of the cor	mnany/ ioh			(5)	1	(4)	(3)	(2)	(1)
		y package I r					1				
		100									
	Signing bonus I received. Potential for advancement within the company.										
	-		- Sinerit Willing		- J						30 30 30
							-				
	- 10	of the compar									
	_	-	any offered m	ie.							
			ompany perfo				4				

Figure 6. Sample Graduating Senior Exit Survey – Page 4

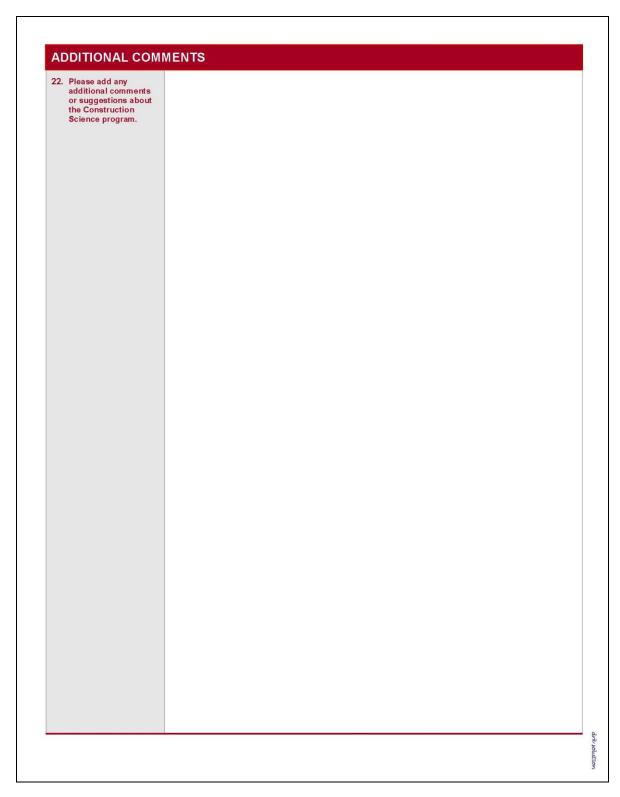


Figure 7. Sample Graduating Senior Exit Survey – Page 5

Appendix B

2006 Summary Statistics: SPRING 06 SUMMER 06 FALL 06 TOTAL NUMBER OF GRADUATES 51 (25*) 33 (11*) 64 (9*) 148 (45*) NUMBER OF GRADUATES PROVIDING DATA 51 (15*) 33 (6*) 64 (2*) 148 (23*) Going to Graduate School 2 1 3 Going into the Military 5 1 6 Pursuing "Other" Careers 10 Undecided STARTING BASE SALARY** \$ 45,000.00 \$ 45,000.00 \$ 45,000.00 \$ 45,000.00 Min Max \$ 59,760.00 \$ 59,760.00 \$ 59,760.00 \$ 59,760.00 Average \$ 49,527.00 \$ 49,527.00 \$ 49,527.00 \$ 49,527.00 *Graduate Students **Undergraduates only. Does not include hiring bonus or allowances of any kind. Excludes military and those on sales commission. ■ Companies Hiring Our Graduates (BOLD – CIAC Members): • ************ • ************ - 2 -3 - 2 -2 - 4 - 2 • ******** • ********* • ******** . ************* • ********* • ********

Figure 8. Sample Employment Summary Report

Appendix C

CONFIDENTIAL **Undergraduate Student Exit Survey** Summary Analysis - Spring 2006 This information is summarized from the exit surveys completed by graduating seniors during their final month of school. No effort is made to validate this data independently. 71 students are expected to graduate in Spring 2006 semester and this analysis includes responses from 65 students enrolled in **** 483 seminar course (92% of the graduating students). The information is collected through a protected digital survey form that is automatically compiled in an access database. The students fill out the survey form in MS Word format and email it to exitsurvey@*****.edu address as an attachment. SECTION I - EDUCATIONAL EXPERIENCE 1. CUMULATIVE GPA OF OUR GRADUATES. Мах 3.96 / 4.00 Mode 3.00 / 4.00 Median 3.20 / 4.00 Std. Dev 0.34 2. HOW DID OUR GRADUATES BECOME CONSTRUCTION SCIENCE MAJORS? 22% (14) of our graduates started as a Construction Science Major 57% (37) of our graduates transferred from another major at TAMU including: i. Agricultural Development - 1 2 Students did not report their previous major. ■ 25% (16) of our graduate transferred from another school, including: I Student did not report his/her previous school. 2 Students transferred form another school to a department at ******** other than Construction *********** 3. FOUR STRENGTHS OF THE CONSTRUCTION SCIENCE PROGRAM. (VERBATIM) 4. FOUR AREAS WHERE CONSTRUCTION SCIENCE PROGRAM CAN IMPROVE (VERBATIM) 5. INTERNSHIP PROGRAM. The following companies provided internship for our graduates: CONFIDENTIAL 1

Figure 9. Sample Survey Summary Analysis Report - Page 1

	INTERNSHIP PROGRAM (VERBATIM).	
	*******	***************************************	
UATION OF ADMINISTRATI	VE AND EVERACIIPPICII	I A D. ACTIVITIES	
UATION OF ADMINISTRATI	VE AND EXTRACORRICO	LAK ACTIVITIES.	
Evaluation:			
		EFFECTIVENESS	
	Student Advising	3.59 / 5.00	
	Student Placement	3.67 / 5.00	
	Field Trips	3.03 / 5.00	
	Outside Speakers	3.73 / 5.00	
	Administrative Staff	3.64 / 5.00	
(Very	effective – 5.00; Somew	hat effective – 3.00; Not effec	ctive -1.00)
Comments (Verbatim):			
Comments (verballin).			
•	***************************************	•	
UATION OF REQUIRED CO	URSES.		
Students were asked to evaluat	te the required courses. For each	n course, students rate their per	ception as to the importance of the co
	they rate the course as to its effe		
	DID NOT TAKE	IMPORTANCE	EFFECTIVENESS
COSC 153 INTRO	12%	3.32 / 5.00	3.02 / 5.00
COSC 253 M & M I	0%	3.82 / 5.00	3.40 / 5.00
COSC 254 M & M II	0%	4.57 / 5.00	4.45 / 5.00
COSC 275 EST I	0%	4.56 / 5.00	3.97 / 5.00
COSC 321 STRUCT I	2%	2.66 / 5.00	2.49 / 5.00
COSC 323 SOILS	0%	3.00 / 5.00	2.44 / 5.00
COSC 325 ENV I	2%	3.86 / 5.00	3.47 / 5.00
COSC 326 ENV II COSC 351 EQUIP	14%	3.95 / 5.00 3.57 / 5.00	3.67 / 5.00
COSC 353 PROJ MAN	5%	4.43 / 5.00	3.68 / 5.00
COSC 375 EST II	0%	4.86 / 5.00	4.59 / 5.00
COSC 381 SEMINAR	8%	2.67 / 5.00	2.60 / 5.00
COSC 421 STRUCT II	0%	3.22 / 5.00	3.52 / 5.00
COSC 422 STRUCT III	0%	3.28 / 5.00	3.66 / 5.00
COSC 440 CAPSTONE	28%	4.28 / 5.00	3.70 / 5.00
COSC 441 CAPSTONE COSC 442 CAPSTONE	88% 89%	4.20 / 5.00 3.75 / 5.00	4.20 / 5.00 3.75 / 5.00
COSC 444 CAPSTONE	94%	3.00 / 5.00	3.00 / 5.00
COSC 446 CAPSTONE	94%	3.00 / 5.00	3.00 / 5.00
COSC 455 ALT DEL	88%	3.00 / 5.00	3.25 / 5.00
COSC 463 LAW	3%	4.34 / 5.00	4.05 / 5.00
COSC 464 SAFETY	3%	4.17 / 5.00	3.16 / 5.00
COSC 465 LAW	2%	4.44 / 5.00	4.32 / 5.00
COSC 475 SCHED	0%	4.68 / 5.00	4.31 / 5.00
COSC 477 CONTROLS COSC 483 SEMINAR	3%	3.64 / 5.00 2.62 / 5.00	3.05 / 5.00 2.33 / 5.00
COSC 484 INTERN	51%	4.81 / 5.00	4.70 / 5.00
COSC 494 INTERN	28%	4.89 / 5.00	4.81 / 5.00
			1 1000000000000000000000000000000000000
	(Very – 5.00; Sor	mewhat – 3.00; Not -1.00)	
Comments (Verbatim):			
minor no (rondomin)			

Figure 10. Sample Survey Summary Analysis Report – Page 2

9. EVALUATION OF FACULTY.

Students were asked to evaluate faculty / staff based on their experience in the program. They were specifically asked to evaluate each faculty member NOT THE COURSES TAUGHT.

	DID NOT HAVE	EFFECTIVENESS
Dr. ************	26%	2.75 / 5.00
Dr. *********	49%	3.45 / 5.00
Ms. ********	38%	1.77 / 5,00
Ms. *********	91%	3.60 / 5.00
Dr. ********	5%	3.30 / 5.00
Dr. *********	9%	4.08 / 5.00
Mr. *********	0%	4.25 / 5.00
Dr. *********	3%	4.41 / 5.00
Mr. *********	89%	4.00 / 5.00
Dr. **********	14%	2.73 / 5.00
Dr. *********	88%	3.29 / 5.00
Dr. ***********	2%	4.25 / 5.00
Dr. ************************************	40%	2.00 / 5.00
Dr. ********	2%	4.61 / 5.00
Mr. ********	97%	3.00 / 5.00
Mr. *********	65%	287 / 5.00
Mr. ********	42%	4.24 / 5.00
Mr. *********	97%	3.00 / 5.00
Mr. *********	2%	3.26 / 5.00
Ms. ****	72%	3.24 / 5.00
Dr. ***********	0%	4.49 / 5.00
Dr. *********	3%	2.63 / 5.00
Dr. ************************************	26%	3.02 / 5.00
Dr. *********	83%	2.91 / 5.00
Dr. **********	17%	4.65 / 5.00

(Very effective – 5.00; Somewhat effective – 3.00; Not effective -1.00)

■ Comments (Verbatim):

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10. EVALUATION OF STUDENT ORGANIZATIONS.

 $\,\blacksquare\,$ Students were asked to evaluate quality of the student organizations.

	DUES PAYING MEMBER	NO OPINION	QUALITY
ABC	25%	62%	4.04 / 5.00
AGC	32%	60%	4.20 / 5.00
AIC	32%	75%	3.92 / 5.00
DBIA	12%	80%	3.08 / 5.00
MCA	11%	78%	2.91 / 5.00
NAHB	28%	58%	4.31 / 5.00
SWIC	11%	77%	3.33 / 5.00
SLX	11%	89%	1.50 / 5.00

(Excellent - 5.00; Satisfactory - 3.00; Unsatisfactory - 1.00)

Comments (Verbatim):

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3

Figure 11. Sample Survey Summary Analysis Report – Page 3

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SECTION II - WORK EXPERIENCE AND FINANCIAL SUPPORT

WORK EXPERIENCE AND FINANCIAL SUPPORT.

- a 65% (42) of our graduates worked outside in their last two years for an average of 24.39 hrs per week, 57% (24) of these were construction related jobs.
- 42% (27) of our graduates took out student loans.
- 26% (17) of our graduates received grants (other than scholarships) to help finance their education.
- The average estimated amount that they have to pay back after graduation is \$ 21,888.46

12. SCHOLARSHIPS RECEIVED IN LAST THREE YEARS.

- 42% (27) of our graduates received at least one scholarship in their last three years.
- 60 scholarships were awarded totaling \$ 127,250,00. This amounts to an average of \$ 2,129,83 per scholarship.
- The following scholarships were awarded to our students:

DONOR	AMOUNT	DONOR	AMOUNT
*******	\$ 2,000.00	**************	\$ 1,000.00
******	\$ 5,000,00	********	\$ 1,000,00

TOTAL: \$ 127,250.00

SECTION III - JOB PLACEMENT

13. INTERVIEWS AND JOB OFFERS.

- Students received a total of 455 first interviews. (Average= 7.00 per student, Min=0, Max=30), 85% (386) of these interviews were through our career fair.
- Students received a total of 227 second interviews. (Average= 3.49 per student, Min=0, Max=16).
- Students received a total of 167 written offers. (Average= 2.57 per student, Min=0, Max=15).
- Students reported to receive the following written job offers:

COMPANY	OFFER	COMPANY	OFFER
*********	\$45,500.00	***************************************	\$48,000.00
********	\$47,000.00	***********	\$60,580.00

14. ACCEPTED POSITIONS.

- At the time of this survey:
 - i. 78% (51) of the students accepted job offers in construction industry.
 - ii. 8% (5) of the students were still considering offers.
 - iii. 8% (5) of the students reported to go into military service (US and Korean) .
 - iv. 2% (1) of the students decided to go to graduate school.
 - v. 5% (3) of the students did not have a written job offer.
- Base salary for the students going into construction industry (Average= \$47,214.12, Min= \$29,999.00, Max= \$67,000.00).
- Initial bonus for the students going into construction industry (Average= \$1,685.00, Min= \$0.00, Max=\$12,000.00). All initial bonuses were for signing and/or relocation expenses.
- Other perks for the students going into construction industry includes:
 - i. One time/annual monetary bonus (up to \$ 10,000.00).
 - $ii. \quad \hbox{Phone, blackberry, computer, etc.}$
 - iii. Truck allowance, Gas card, Expense account, etc.
 - iv. Housing, food, home internet, gym membership, etc.

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4

Figure 12. Sample Survey Summary Analysis Report - Page 4

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- The distribution of the construction industry sectors were:
 - i. Residential 9% (6)
 ii. Commercial 58% (88)
 iii. Industrial 6% (4)
 iv. Heavy/Highway 0%(0)
 - v. Other 5% (3) including Construction Liftgation Consulting, Embassy Work, Green Building Commissioning, and Water/Wastewater.
- 23% (13) of our graduates accepted offers from the companies that they interned with.
- Students reported to accept the following positions in construction industry:

COMPANY	LOCATION	POSITION	BASE SALARY	INITIAL BONUS
*********	XXXXXXXXXX	ESTIMATOR .	\$52,000.00	\$ 1,000.00
*****	********	PROJECT ENGINEER	\$43,500.00	\$ 500.00

AVERAGE BASE SALARY: \$ 47,214.12

15. REASONS FOR ACCEPTING THE POSITION.

■ Students were asked to evaluate the importance of the reasons for taking employment with the company they chose:

	IMPORTANCE
Location of the company/ job.	4.18 / 5.00
Salary package I received.	3.72 / 5.00
Signing bonus I received.	2.23 / 5.00
Potential for advancement within the company.	4.58 / 5.00
Company culture.	4.50 / 5.00
Entry level position I was offered.	3.37 / 5.00
Size of the company.	3.35 / 5.00
Training the company offered me.	3.95 / 5.00
Type of work the company performs.	4.43 / 5.00

(Very important – 5.00; Somewhat important – 3.00; Not important -1.00)

SECTION IV - ADDITIONAL COMMENTS

	ADDITIONAL COMMENTS FROM OUR GRADUAT	ES (VERBATIM).
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5

Figure 13. Sample Survey Summary Analysis Report – Page 5