
FACULTY OF SCIENCE AND EDUCATION

DEPARTMENT OF COMPUTER SCIENCE

TITLE: AN ONLINE FEEDBACK SYSTEM

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A research report submitted to the faculty of science education in partial fulfillment of the requirements for the award of the degree of Bachelor of Science in computer science at Busitema University.

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DECLARATION

I, Tibitondwa Jane declare that the work presented in this research report is my original work and has not been submitted to any university or institution of higher learning for any academic award. Each contribution to, and quotation in, this Report from the work of other people has been attributed, cited and referenced.

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APPROVAL

This report has been submitted for Examination with the approval of the following supervisor.

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DEDICATION

I would like to take this opportunity to dedicate this report to the staff at Busitema University and the persons that were very helpful, extended their valuable guidance and help whenever required for the project which I worked on. I also dedicate this report to my Supervisor Dr. Lukyamuzi Andrew for his valuable guidance and training during this project. Finally, I dedicate this report to my beloved parents Mr. Basuta David and Ms. Nakasango Florence.

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ABSTRACT

Until recently, creating and conducting an online survey was a time-consuming task requiring familiarity with web authoring programs, HTML code, and scripting programs (Wright, 2005). Today, survey authoring software packages and online survey services make online survey research much easier and faster. (Mertler, 2002) observes that while online data collection is currently little used to get feedback, it is an efficient and convenient alternative to the more traditional method of gathering information from students, teachers and parents. , (Schleyer & Forrest, 2000) reports that researchers across disciplines were realizing the benefits of data collection using the internet. As a natural progression of that trend they observed that journals were also widely publishing research papers based on data that had been collected online. According to my research, studies have shown that most students suffer from miss communication during verbal communication, high costs while printing, communication not being effective since it involves physical reach out of students, a lot of time spent during communication, and communication can be altered in some cases. I have developed an online feedback system that will enable staff to post information, students to view information, and students to give feedback in comments in an easy and effective way.

I used RAD and prototype methods of development because the system was developed in modules and reviews were made per module with respective stake holders hence favors modular development. MySQL is the database that I used, the core IDE for development was VScode, server side scripting language was PHP 7.2 and client scripting was JQuery 3. The system can be accessed via web browser by the secure URI.

This report uncovers the details relating to the development and implementation of an online feedback system applied at Busitema University. The online feedback system uses an online data collection format to return data that is analyzed to provide information about the evaluation of courses, teaching, results, and security, among others that take place at the University. This OFS will deliver the university administration from the arduous work of physically reaching out to students in order to retrieve their views.

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ACRONYMS

| | |
|--------|---------------------------------------|
| SDLC | Software Development Life Cycle |
| BU | Busitema University |
| ERD | Entity Relationship Diagram |
| DFD | Data Flow Diagram |
| SQL | Structured Query Language |
| PDF | Portable Document Format |
| GB | Giga Bytes |
| DB | Data Base |
| MYSQLi | My Structured Query Language Improved |
| OFS | Online Feedback System |
| FSE | Faculty of Science and Education |

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CHAPTER ONE

This is the first chapter that consists or covers the introduction, background, problem statement, objectives, significance of the study, and the case study of my research. This chapter elaborates more on how communication is performed in the day-today life, the problems that are faced during communication and feedback of the communication, and how I solved the problems facing feedback during communication specifically in Busitema University, Nagongera campus. The case study of my research was Busitema University, specifically Nagongera campus.

1.0 Introduction

In the communication world today, there is what we call Communication process, and in this type of process, it consists of mediums through which you can send a message to its intended audience. There are key components in this communication process and these include: encoding medium, transmission, decoding, and feedback. These components enable transmission of a message, where one can send a message to the intended recipient and then this person replies to the message (this is called feedback) through the communication medium.

However, due to challenges faced by Communication Process in Busitema University forexample: high costs, a lot of time spent, miscommunication, the communication not being effective, I have developed a software(Online Feedback System) that will support review platforms and effective communication in Busitema University.

1.1 Background

Students' feedback is considered a necessary tool for quality assurance. The information obtained can then be used to make necessary adjustments in the school's programs as a criterion for better service delivery. In the existing feedback system used at Busitema University, students are provided with forms that are filled usually after an examination since this is one of the few times that college students can collectively be accessed. The forms are then manually entered into the database for further analysis. This whole process is strenuous and time-consuming as compared to an online feedback system. Also information is communicated verbally to the coordinators or it is posted on the notice board physically. This process is tiresome and most students miss out on the information because they are lazy to reach the notice board or the coordinator communicated to a few people.

REFERENCES

1. Berry, L., & Parasuraman, A. (1997). Listening to the customer--the concept of a service-quality information system. *MIT Sloan Management Review*,38(3), 65.
2. Bosnjak, M. (2001). Participation in non-restricted Web-surveys. A typology and explanatory model for item-nonresponse. In U.-D. R. Bosnjak, *Dimensions of Internet Science* (pp. 193-208). Lengerich:: Pabst Science Publishers.
3. Defranzo, S. E. (2015). Snapsurveys:5 reasons why feedback is important. *retrieved from <https://www.snapsurveys.com/blog/5-reasons-feedback-important/>*.
4. Dillman, D. (2000). *Mail and Internet Surveys:The Tailored Design Method*. New York: John Wiley & SOns.
5. Granello, D. H., & Joe, E. W. (2004). *Journal of Counselling and Development* vol 82.
6. Lefever, S., Dal, M., & Mathiasdottir, A. (2007). *British Educational Communications and Technology Agency*. Oxford: Blackwell Publishing,OX4 2DQ,UK.
7. Llieva, J., Baron, S., & Healey, N. M. (2002). Online surveys in marketing research:Pros and cons. *International Journal of Market Research*,44(3), 361-367.
8. Mertler, C. (2002). Demonstrating the potential for web-based surveys methodology with a case study. *American Secondary Education*,30,2, 49-62.
9. Møller, C., & Barlow, J. (1996). *A complaint is a gift: using customer feedback as a strategic tool*. Berrett-koehler publishers.
10. Nonnecke, B., Preece, J., & Andrews, D. (2003). Electronic survey methodology:A case study in reaching hard-to-involve internet users. *International Journal of Human Computer Interaction* 16(2), 185-210.
11. Stanton, M. J. (1998). An empirical assessment of data collection using the Internet. *Personnel Psychology* 51(3), 709-725.
12. Wirtz, J., Tambyah, K., & Mattila, A. S. (2010). Organizational learning from customer feedback received by service employees:A social capital perspective. *Journal of Service Management* 21(3), 363-387.
13. Wright, K. (2005). Researching Internet-based populations:Advantages and disadvantages of online survey research,online questionnaire authoring software packages. *Journal of computer-mediated communication*,10(3),JCMC1034.
14. Zairi, M. (1992). The art of benchmarking:using customer feedback to establish a performance gap. *Total Quality Management* 3(2), 177-188.