**A WEB PORTAL FOR COUNSELLING AND GUIDANCE SYSTEM FOR STUDENT**

**(A CASE STUDY OF ATU COMPUTER SCIENCE STUDENTS)**

**BY**

**GAGBLEZU DIANA SEYRAM**

**(01171146D)**

**KUWORYE SAMPSON KOFI**

**(01171914D)**

**AND**

**SEME EMMANUEL**

**(01172337D)**

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**DECLARATION**

We hereby declare that the work in this project is our own except for quotations and references which have been duly acknowledged. The project has not been accepted for any HND or BSc award elsewhere.

Name Signature Date

GAGBLEZU DIANA SEYRAM ------------------------- -------------------------

(CANDIDATE)

KUWORYE SAMPSON KOFI ------------------------- --------------------------

(CANDIDATE)

SEME EMMANUEL ------------------------- --------------------------

(CANDIDATE)

DR NANA YAW ASABERE ------------------------- --------------------------

(SUPERVISOR)

DR NANA YAW ASABERE ------------------------- --------------------------

(HEAD OF DEPARTMENT)

**DEDICATION**

This work is solely dedicated to Almighty God. We also dedicate this work to our parents who supported us to this level of our education and also to our supervisor for his tireless efforts in guiding us through this project work.

We say thank you all for your unconditional support.

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**ABSTRACT**

Counseling of students in Accra Technical University (ATU) has been a big challenge, particularly to the lecturers when they want to educate or counsel the students on how to farewell in their various courses of study in every semester.

Online counseling works as a means of constant contact between the students and the counseling center or the counselor. It has proved its worth time and over again. Online counseling helps in facing, addressing and resolving the distress and challenges faced by students in their life. They are being counseled by licensed professional or a certified counselor. Sincere records of the facts discussed between the student and the counselor are being maintained for future purpose. Online counseling services have become increasingly popular. Students who are miles away from such assistance – or are not ready to face the spotlight – or the ones who are afraid of being confronted seek help through online counseling.

Counseling is a process to have a two-way communication with students and to find out their personal attributes. It is also an important aspect for the students of current technological generation as individual counselor may remain in contact with all individual students as well as parents. Here, students are allowed to speak whatever they think about their academic environment, the curriculum, and their learning progress. So, collecting all necessary information about the student and making their parent’s awareness about their life becomes essential nowadays. Student Counselling Management System (SCMS) will simplify the process and reduce manual paperwork. It is used to smoothen the work of each counselor who are facing problems currently, and making complete atomization of manual process to computerized system.

**Keywords:** Counselling, Education, Information, Environment, Computerize, Atomization, Transition, Record, Documents.

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**CHAPTER ONE**

**INTRODUCTION**

**1.1 BACKGROUND OF THE STUDY**

The current educational system of Ghana has three main transitional stages. The nation expects its citizenry to pass through at least one of the three stages in life. The first is the basic stage which is made up of six-year primary and three-year junior high education. The second stage is three-year senior high education. The final stage is three to four years’ tertiary education which comprises a number of different programmes and courses offered in the universities, polytechnics, colleges of education and other tertiary institutions. The students being the future leaders of tomorrow need to be guided and counselled by trained professional guidance coordinators as they move through these three main transitional stages. This will enable the students to identify their needs, interest, aspirations, strengths and weaknesses and be able to cope effectively with their problems. The students again need to be well equipped and trained to take on the mantle of the future. Correct information will assist them to be well equipped and guided to make wise decisions about the future not only for themselves but for their community and the society at large. Many of us adults would not have been 1 where we are today if we had not received guidance from our parents and teachers that enabled us to make wise decisions to overcome our own problems. Thus, before the 1960s when attempts were made to establish forms of guidance services, there existed some forms of guiding people (Essuman, 1999). According to Dankwa (1981) guidance during this era was administered in schools and colleges by heads of institutions, housemasters and mistresses, teachers and chaplains.

In 1971 the cumulative record cards were launched in elementary schools in some districts of five (5) regions in the country, namely Eastern, Volta, Western, Greater Accra and Central. The cards were also introduced to students in teacher training colleges, where students were taught how to use them (Dankwa, 1981). 2 By 1973, about six Ghanaian experts trained in the United Kingdom, the United States of America and Canada had arrived in the country to contribute to the guidance and counselling field (programme). Unfortunately, the political condition in the country did not allow them to work effectively as a result of the military coup in 1972 (Ackummey, 1988). Serious work in establishing guidance and counselling programmes began in 1976 when the Ghana government came out with a policy through a directive issued by the Ghana Education Service (GES) for the establishment of guidance and counselling programmes in the nation’s second cycle institutions. The policy stated that: The Ghana Education Service has decided to establish a systematic guidance and counselling programme in all second cycle institutions in the country i.e. secondary, technical, vocational, commercial and teacher training colleges (G.E.S, cited in Taylor & Buku, 2006).

As a step in the right direction, the Institute for Educational Planning and Administration (IEPA) of the University of Cape Coast was authorized to train some selected teachers from second cycle institutions as guidance coordinators (Essuman, 1999). By 1981, about two hundred coordinators had been trained and were working in second cycle schools or in regional and district offices of the Ghana Education Service. Currently, many Ghanaian senior high schools and colleges could now boast of guidance coordinators. There are also Regional and District coordinators in GES who coordinate guidance and counselling services in all the schools within the regions and districts.

At the Colleges of Education, students undertake courses in guidance and counselling to enable them make decisions on issues affecting their lives. Some of these decisions are either to continue their education after completing their course and serving for a number of years or to remain in the classroom as diploma holders without furthering their education. Guidance and counselling therefore play an important role by ensuring that the students take the right decision. According to Olayinka as cited in Oladele (2000) guidance and counselling in schools and colleges enable the country to identify her talented youth to nurture to the optimal level of social, educational and economic development. Many a time students have been caught in indiscipline acts such as drunkenness, promiscuity, smoking and insubordination against authority. Therefore, one might not be wrong attributing the recent indiscipline behavior of students in our educational institutions to poor administration of guidance and counselling services.

Again, some students spend their monthly allowances extravagantly on drinks instead of investing them profitably for the purchasing of books for their studies. Some female students also in the bid to acquire material things resort to taking male friends or engaging in casual sex. Female students and their male fiancée hide in dark places during prep hours to make love and this at times result in unwanted pregnancy, thereby cab using stress on both partners. These suggest that students have to be equipped socially, emotionally and psychologically so that they can adjust themselves well into the society and to prepare them for useful employment (Farrant, 1980). These and many others call for non-teaching programmes (activities) different from the normal classroom teaching to serve the emotional, social and the psychological needs of students in Colleges of Education.

**1.2 PROBLEM STATEMENT**

Education aims at the total development of individuals who will be useful to themselves and to the society at large. It is for this reason that there must be some programmes different from the classroom teaching in the school curriculum to augment what is taught in the classroom to ensure the total development of individuals. One of such programmes is guidance and counselling services.

Guidance and counselling therefore play an integral role in the total development of the individual. Guidance and counselling help students considering the complexity of our contemporary world to make wise and informed decisions on matters affecting their lives as well as educational and

vocational choices.

In recent times, Colleges of Education in Ghana are gradually attaining tertiary status; this transformation challenges the administrators of guidance and counselling to rise up to the task. The administration of guidance and counseling in these institutions therefore, need to be strengthened in order to help students make informed decisions to overcome some of the challenges this transition is likely to bring.

Accra Technical University is one of the Collages of Education in Ghana that administer guidance and counseling services to the people of the school. The guidance and counseling department does not have an automated way of storing students and staffs’ information, this makes keeping of records and searching of data very difficult and time consuming. Also many students are not aware of the guidance and counseling department in the school but the few who are aware do not visit the office regularly for the fear of being stigmatized by friends.

It is assumed that trained teachers can serve as providers of guidance and counselling service in schools. However, the question that arises is whether these teachers have the prerequisite professional training in guidance and counselling to enable them effectively provide this vital service. Further, it is important to establish whether there are other challenges that teacher counsellors encounter in their duty of guiding and counselling students. It was thus hypothesized that inadequate training of guidance and counselling personnel, lack of resources, lukewarm support to guidance and counselling programmes and negative attitude to guidance and counselling services will not significantly influence the quality of guidance and counselling services provided to high school students.

**1.2.1 RESEARCH QUESTIONS**

In order to achieve the purpose of the study, the following questions were formulated.

1. What is the nature of guidance and counselling services in Accra Technical University?
2. How is information stored with the current system?
3. What are the types of guidance and counselling services in Accra Technical University?
4. What are the challenges of guidance and counselling services administering in Accra Technical University?

**1.3 AIM**

To design and implement robust guidance and counseling web portal for Accra Technical University.

**1.4 OBJECTIVES OF THE STUDY**

The following are the specific objectives that are to be achieved.

1. To investigate and analyze the current system in Accra Technical University.
2. To create a database that will store and manage the records of students and lecturer’s psychological data.
3. To create a web portal where students can request for guidance and counselling.
4. To model the proposed web portal to create a link between students and counsellors.
5. To create a reporting system that will manage the psychological needs of students.

**1.5 SIGNIFICANCE OF THE STUDY**

Professional school counselors meet the needs of student in three basic domains: academic development, career development, and personal/social development (Dahir & Campbell, 1997; ASCA, 2005) with an increased emphasis on college access. Knowledge, understanding and skill in these domains are developed through classroom instruction, appraisal consultation, counseling, coordination, and collaboration. For example, in appraisal, school counselors may use a variety of personality and career assessment methods to help students explore career and college needs and interests. School counselor interventions include individual and group counseling for some students. For example, if a student's behavior is interfering with his or her achievement, the school counselor may observe that student in a class, provide consultation to teachers and other stakeholders to develop (with the student) a plan to address the behavioral issue(s), and then collaborate to implement and evaluate the plan. They also provide consultation services to family members such as college access, career development, parenting skills, study skills, child and adolescent development, and help with school-home transitions. School counselor interventions for all students include annual academic/career/college access planning K-12 and leading classroom developmental lessons on academic, career/college, and personal/social topics. The topics of character education, diversity and multiculturalism (Portman, 2009), and school safety are important areas of focus for school counselors. Often school counselors will coordinate outside groups that wish to help with student needs such as academics, or coordinate a program that teaches about child abuse or drugs, through on-stage drama (Poulou, 2005).

According to (Anho, 2018) the administrative impact of guidance and counselling student’s personnel support services in high educational institutions in Delta State in the period of economic recession. It is therefore very useful for higher institution’s management, administrative staff (academic and non-academic) students and parents. Management of higher institutions i.e. the vice-chancellors/provost/Rectors and their team, will understand better, or reinforce their knowledge of the administrative impact of guidance and counselling student’s personnel support services on students, thereby giving it its desired and expected place in their institutions. Guidance and counselling student’s personnel support services are capable of assisting students to understand the variety, depth and breadth of personal, inter and intra-personal experiences and relationships available in these institutions. Those staff and students who discover the expected administrative impact of the services, will not only be very much willing to seek, but use the services to resolve their seemly insummatable, socio-psychological, economic and educational problems. Ministry of education officers will find the findings from the study very useful in planning education programmes, in recruitment, and in deployment of staff, thus making sure every institution of higher learning has a guidance counselor. Other researchers in school administration and management, including guidance and counselling will benefit immensely from this research as a solution to personal and institutional administrative crises often experienced in the higher institutions constitute administrative problems.

In past guidance was not formal, systematic and planned one. In the form of advices, the guidance was offered to the children informally and randomly by the parents, teachers or experienced well-wishers. But in course of time due to rapid human explosion, influence of rapid industrialization, impact of science and tech­nological development, entrance of modernity and social changes the human life became more complex which compelled him take the help of guidance always or occasionally.

Now a day’s guidance occupies an important place in the human life as it helped in­dividual student in paying individual attention, giving special help and instruction to exceptional children, providing scope to choose suitable subjects of study, helping in the development of study habits, selecting proper occupation, solving personal problems and so on.

Besides this the importance of guidance service provided in the school is clearly known from its needs and helps which is previously elaborated. However, in the present century the importance of guidance is highly realized due to its various needs and demands by every Indians and as well as the people of entire humanity.

**1.7 SCOPE OF THE STUDY**

This study covers Counseling management system for Accra Technical University. It is limited to counseling based on the choice of career (Science or Arts).

**1.7 ORGANIZATION OF THE STUDY**

This research work is organized into five chapters to give a vivid explanation of each chapters: **Chapter One** is concerned with the introduction of the research study and it presents the preliminaries, theoretical background, statement of the problem, aim and objectives of the study, significance of the study, scope of the study, organization of the research and definition of terms.

**Chapter Two** presents a review of related work or existing work that has been carried out previously by other researchers. Starts with an introduction after which both academic and technical research is reviewed.

**Chapter Three** presents the methodology used in performing the research. Every step is discussed to ensure all set objectives of the research are achieved, to fulfill the aims of the research. It also talks about how data was collected and analyzed based on the objectives of the project.

**Chapter Four** discusses the proposed system and its implementation. This chapter explains how the system was developed and how it works. It provides a much-detailed outline of the process of building and implementing the system.

**Chapter Five** emphasizes on conclusion and recommendations. It summarizes the work done and touches on all the major highlights of the research project.

REFRENCES

Essuman, J. K. (1999). *The History of Guidance and Counselling in Ghana*. Ife

Psychology. *2*(2), 72-88.

Essuman, J. K. (2001). *A Review of Educational Studies (1983-1997) in*

*Guidance and Counselling in Schools in Ghana.* Ghana Journal of

Psychology, *1*(1), 2-88.

Dankwa, D. O. K. (1981). *Guidance and Counselling in Ghana Education*

*Service: History and Policy.* An Unpublished master’s thesis. University

of Cape Coast, Ghana.

Ackummey, M. A. (1988). *An Evaluation of the Guidance and Counselling*

*Course of the Bachelor of Education Degree Programmes at the*

*University of Cape Coast.* Unpublished master’s thesis, University of

Cape Coast Ghana.

Taylor, A. I., & Buku, D. K. (2006). *Basics in Guidance and Counselling* (2nd

ed.). Winneba, Ghana: Department of Psychology & Education.

Aidoo, J. (2011). *Administration of Guidance and Counseling in the Colleges of Education in Ghana.*  University of Cape Coast Ghana.

C.A. Dahir& C.B. Stone Accountability a measure of the impact school counselors have on student achievement Professional School Counseling, 6(3), 214-220(2003).

M.Portman, Educational psychology and the education of teachers: a reaction. Educational Psychologist, 31, 1, 23-28(2009)

M.Poulou , Educational psychology within teacher education. Teachers and Teaching: Theory and Practice, 11,6, 555-574(2005).

C. A, Campbell., & C. A, Dahir. The national standards for school counseling programs. Alexandria, VA: American School Counselor Association (1997).

Anho, J.E. (2018). The *Administrative Impact of Guidance and Counselling Student’s Personnel Support Services on Higher Educational Institutions in Delta State in the Period of Economic Recession.* Department of Educational Administration and Policy Studies, Faculty of Education, Delta State University, Abraka.