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   - **OBJECTIVES**
   - **HYPOTHESES**
   - **RESEARCH METHODOLOGY**
   - **RESULTS & DISCUSSION**
   - **FINDINGS**
   - **RECOMMENDATIONS/SUGGESTIONS**
   - **CONCLUSIONS**
   - **SCOPE FOR FURTHER RESEARCH**
   - **ACKNOWLEDGMENTS**
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   - **APPENDIX/ANNEXURE**

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- Hunker, H.L. and A.J. Wright (1963), “Factors of Industrial Location in Ohio” Ohio State University, Nigeria.

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**WEBSITES**
In Ghana, Institutions of higher learning set up special counselling units to cater for the psychological needs of students. There are physical access to the units but preliminary investigations indicates that, most students are not comfortable having physical interaction with counselors or being seen visiting the unit for fear of stigmatization. It is therefore significant to find a way of maintaining high confidentiality, privacy and even allow students to receive counseling services on anonymity. This paper therefore looks at the requirements that could be used to develop an e-counseling system for institutions of higher learning in Ghana. Existing online counselling requirements were gathered through literature review and confirmed with interviews with counselors and questionnaires administered to students. The following requirements were elicited: Video conferencing capabilities, Stored History of Students and Sessions, Asynchronous and Synchronous Session mix, Anonymous Counseling capabilities, High Security and Ability to track the responses of students to treatment. These requirements were obtained from literature and confirmed empirically. Three new requirements were gathered from the study. These were: High internet availability, peer counseling capabilities and ability for the e-Counseling system to integrate with other student records systems.

**KEYWORDS**

e-Counseling, educational technology, Ghana, Online Counseling, requirements.

### 1.0 INTRODUCTION

In Ghana, Institutions of higher learning set up special units to cater for the needs of students. One of such units is the Counseling unit. The Counseling unit is responsible for meeting the psychological and mental needs of students. Counselors try to advise students on matters that can harm their studies and hamper their academic achievements. The realities on the ground, however is that, students seldom visit the unit. According to records from the counseling unit, about 90% of students who visit the unit for counseling sessions have been referred there for their involvement in some antisocial activities. There are a lot of students whose academic performance keep on getting worse from semester to semester. If these students have access to counseling, the trend could be reversed. Ineffective counseling, however, can lead to students making uninformned or incorrect academic choices, thus contributing to lower academic performance or even desertion (Soulby, 1999; Simpson, 2004; Kuitinen, et. al., 2001). There is physical access to the unit but preliminary investigations show that, most students are not comfortable having physical interaction with counselors or being seen visiting the unit for fear of stigmatization. It is therefore significant to find a way of increasing access to counseling services for students in Institutions of Higher Learning.

Institutions of higher learning are adopting various technologies to improve on the efficiency of their processes. Such systems include e-learning (Kever and Asiedu, 2010) online admission and registration, computerized accounting, etc. e-Counseling is the use of technology to administer counseling services to clients and it is one of the emerging technology aided services being adopted by various institutions. Online counseling is popular in the non-educational field like the mental health but less known in the educational field. This paper therefore looks at the requirements of an e-counseling system in institution of Higher Learning in Ghana.

### 2.0 REVIEW OF LITERATURE

e-Counseling is an emerging domain in the field of e-Services. It has other synonyms that include e-therapy (Manhal-Baugus, 2001), cybertherapy (Suler, 2000), online or Internet therapy (Rochlen, Zack & Speyer, 2004), e-mail therapy ( Shapiro & Schulman, 1996), Internet counseling (Pollock, 2006), web counseling (Urban Keys Young, 2002), cybercounseling (Maples and Han, 2008), and therap-e-mail (Murphy & Mitchell, 1998), internet supported interventions (Barak, Klein & Proudfoot, 2009) and online counseling (Shiller, 2009).

A number of definitions of e-Counseling and its related terms have been proposed, including the following. Bloom (1998) defines online counseling as “the practice of professional counseling that occurs when client and counselor are in separate or remote locations and utilize electronic media to communicate with each other” (p.53). Allemom (2002) refers to online counseling as “ongoing, interactive, text-based, electronic communication between a client and a mental health professional aimed at behavioral or mental health improvement” (p. 200). Mallen and Vogel (2005) define online counseling as: Any delivery of mental and behavioural health services, including but not limited to therapy, consultation, and psycho education, by a licensed practitioner to a client in a non-[face-to-face] setting through distance communication technologies such as the telephone, asynchronous e-mail, synchronous chat, and videoconferencing (p. 764). The above definitions have also been taken in the context of mental health therapies which is beyond the scope of this thesis. In our context, counseling is “a system of relationships and processes designed to help people make choices and solve problems,” (George & Cristiani, 1995) and its goals are “to facilitate behavior change, improve the client’s ability to establish and maintain relationships, enhance the client’s effectiveness and ability to cope, promote the decision-making process and facilitate client potential and development (Fujino, 2003).”

In the university environment, the client is the student. Even though, most implementations of e-Counseling have been outside the university environment, there is evidence to show that it can be successfully implemented in the university. The online counseling service appears to attract youth who are too shy or too scared to use other resources (Shiller, 2009) and most university students fall within this class.

e- Counseling in this paper refers to the use of Internet technologies to administer counseling services to students. e-Counseling implementation in most universities in Ghana and some part of Africa have rather been too slow. The websites of university of Lagos (Unilag), Ibadan (UI) and Benin (Uniben) in Nigeria were selected. In Ghana, University of Ghana (UG), Kwame Nkrumah University of Science and Technology (KNUST), University of Cape Coast (UCC), Ashesi and Central University College (CUC) were also analysed. University of Pretoria in South Africa was also looked at. Unilag, UI and Uniben, just like UG; KNUST and UCC, are traditional, public universities in Nigeria with large student populations and strong administrative structures. In Unilag, the official website gives information to both prospective and continuing students on upcoming and past events. There is no online counseling service, whether synchronous or asynchronous. The only online student services available were student records, transcripts and online admission. UI website had all the capabilities of Unilag. The website also has a page dedicated to the careers placement and counseling unit but the page was still under construction (as of 21st February 2013) and there is no indication of what form it is going to take. Most of their online services also work only within the campus of UI. Uniben has an online registration system besides the other capabilities offered by the websites of UI and Unilag. Uniben do not offer online counseling in any form. KNUST offer a number of online services to students which include registration, results checking, admission, forums and a social network known as holla! Even though it is possible to receive peer counseling through such a social network, there is no evidence to support its use for such a purpose. KNUST has also implemented e-Learning across several faculties. The page dedicated to counseling only gives information on the existence of such a unit, the period of contact and the direction to the physical location of the unit.

In PUCG, all students’ online services are developed in-house with open source tools. This is not the case with UG whose online services is outsourced to Integrated Tertiary Software (ITS) Pty Ltd., a South African company. The ITS package include online fee payment and registration, admission, results checking,
and provision of general information to both prospective and continuing students on financial aid acquisition. Financial aid acquisition may fall under a wider scope of counseling, but the mode in which it is administered cannot be considered to be online, since one still needs physical appearance to obtain the service. The KEWL system is used by UG as its e-Learning engine. Again conspicuously missing is the counseling module of the ITS. The UCC also has similar online services and solicits for other e-Counseling requirements from students and counselors. These requirements will become bases for future e-counseling development in institutions of higher learning.

Table 2.1 Literature Review of e-Counseling Requirements

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<td>Video Conferencing</td>
<td>Bouchard et al. (2004) studied the effectiveness of video conferencing against face-to-face sessions for certain types of counseling. Another study (Nelson, Barnard &amp; Cain, 2003) also confirms that video conferencing is as effective as face-to-face session. Day and Schneider (2002) also compared face-to-face, video conferencing and two way audio and concluded that differences in process and outcome among the three treatments were small and clinically promising in comparison with the untreated control group. Video conferencing enhances a two way audio session.</td>
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<td>Stored History of Clients and Sessions</td>
<td>Murphy and Mitchell, 1998 explains the importance of a permanent record as a tool for both counselor and client. Barak, 1999 suggest that, stored history of sessions can be used to remind both clients and therapists of things they had previously expressed and also to allow both the client and the therapist time to fully reflect on issues discussed in previous correspondence (Manhal-Baugus, 2001). Pollock, 2006 indicates that the value of online counseling is in its ability to store history of clients and sessions.</td>
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<td>ASynchronous/ Synchronous session mix</td>
<td>Suler, 2000 and Fenichel et al., 2002 points out the benefits and need for a synchronous communication, such as chats and instant messaging complementing asynchronous modes like emails.</td>
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<tr>
<td>Allow counseling by Anonymity</td>
<td>Suler, 2000 suggests that, allowing clients to receive online counseling as an &quot;invisible client&quot; can reduce or eliminate the stigma associated with receiving certain forms of counseling. Also Under anonymity, clients do not have to contend with the therapist’s immediate emotional feedback signals (Bailey, Yager, &amp; Jenson, 2002). According to Tate &amp; Zabinski (2004), anonymity may also make it easier for patients to disclose information about themselves via the computer since certain social markers such as age, gender and ethnicity are removed. Clients also become less defensive, more honest and candour (Maples &amp; Han, 2008).</td>
</tr>
<tr>
<td>High Security</td>
<td>It is suggested in Fisher &amp; Fried (2003) that threats to confidentiality must be mitigated.</td>
</tr>
<tr>
<td>Treatment tracking</td>
<td>Oravec, 2000 suggest a requirement for counselor to be able to explore the client’s progress at various stages in the course of treatment.</td>
</tr>
</tbody>
</table>

3.0 IMPORTANCE OF THE STUDY

Online counseling research and practice is not new in the field of mental health and other domains outside institutions of higher learning but less known in educational institutions. This paper attempts to open the study of online counseling in institutions of Higher learning by first identifying the requirements from students and counselors. e- Counseling is relevant especially as a compliment to e-learning which has enjoyed wide research. Institutions of Higher Learning who are offering degrees through Open Distance Learning will benefit from this research. Researchers in educational technology are looking at ways of integrating information systems into educational processes and looking at the efficiency and improvements such systems could bring. This research may also fall under broader topics like educational technologies. Most institutions of higher learning in Ghana have as part of their core values, the training of the whole individual which goes beyond academics. For such institutions, this research is also very relevant.

4.0 STATEMENT OF THE PROBLEM

The main research question being considered in this paper is:

What are the requirements for an e-counseling system for Institutions of Higher Learning in Ghana?

Institutions of higher learning train students to be successful to be able to fit into society. Students may have psychological problems which may retard their academic success. If these problems are noticed earlier, they may be rectified and may improve on students’ performance.

5.0 OBJECTIVES

The objectives of this research is to empirically test existing e-Counseling requirements obtained from literature of other domains in a higher educational setting and solicit for other e-Counseling requirements from students and counselors. These requirements will become bases for future e-counseling development in institutions of higher learning.

6.0 RESEARCH METHODOLOGY

The study started with literature review of requirements for e-counseling systems in general. Six main requirements were identified. These requirements were largely obtained from the non-educational domain. Questionnaires were then developed to test the requirements in institutions of higher learning. The Presbyterian University College, Ghana (PUCG) was selected as a case study. The PUCG is a typical institution of higher learning in Ghana with traditional counseling facilities. Hundred students who had previous experience with the traditional face to face counseling were selected randomly from the records of the Life Values Promotion Center (LVPC), the counseling center, of PUCG. These students were contacted through email to respond to the questionnaire. On a 1 to 5 likert scale, students were asked to respond to the extent of agreement (5=strongly agree, 4=agree, 3=neutral, 2=disagree and 1=strongly disagree) of requirement issues relating to video conferencing, synchronous and asynchronous session mix, anonymous counseling and security. There was also an open question for students to indicate what they need in an e-Counseling system. In all, 78 valid responses were received. The means and standard deviations were computed and used to analyze the closed questions whiles categorization and proportions were used to analyze the open questions. Three Counselors from the LVPC were also interviewed on issues relating to treatment tracking and stored history of clients and sessions.

7.0 RESULTS, FINDINGS AND DISCUSSIONS

From Table 4.1, students agree that all the identified requirements of e-Counseling in institutions of higher learning are valid. More importantly, they consider video conferencing and security as a stronger requirement than the others. The findings also suggest that students may prefer synchronous sessions to asynchronous sessions but prefer both to any one of the sessions alone.
1. None of the requirements were disputed by the students. Some suggested the use of forums or some social networking capabilities. Fifty-eight students (representing 89.23%) suggested the high availability of the internet so that the system runs on internet. Other suggestions were made by less than 30% of the students and were therefore ignored. Based on interviews held with 3 counselors, they independently confirmed that, it was necessary to be able to track how students were responding to counseling treatment. It was also important to store the history of students and sessions held by a particular counselor with a student. Apart from these two requirements which confirm existing literature, a third requirement also ran through the views of the counselors. There was the need for an e-Counseling system to integrate with other systems that generate student data. A counselor should for example, be able to access a student’s academic record or financial record from the e-Counseling platform to enable him take certain decisions on the student.

2. From the results from the open questions, two new requirements were suggested by the students. These were the need for peer counseling and the need for high availability of internet. In all, 65 students responded to the open question: what else will you need in an e-Counseling System? Out of the 65 students, 51 (representing 78.46%) said they required some form of a peer counseling system or its related systems which they can use to access support from their colleagues and students. Some suggested the use of forums or some social networking capabilities. Fifty-eight students (representing 89.23%) suggested the high availability of the internet since the system runs on internet. Other suggestions were made by less than 30% of the students and were therefore ignored. Based on interviews held with 3 counselors, they independently confirmed that, it was necessary to be able to track how students were responding to counseling treatment. It was also important to store the history of students and sessions held by a particular counselor with a student. Apart from these two requirements which confirm existing literature, a third requirement also ran through the views of the counselors. There was the need for an e-Counseling system to integrate with other systems that generate student data. A counselor should for example, be able to access a student’s academic record or financial record from the e-Counseling platform to enable him take certain decisions on the student.

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8. CONCLUSIONS AND RECOMMENDATIONS

This paper sought to find the requirements of an e-Counseling System for institutions of Higher Learning in Ghana. From the studies, the following requirements were elicited:

- Video conferencing capabilities, Stored History of Students and Sessions, Asynchronous and Synchronous Session mix, Anonymous Counseling capabilities, High Security, Ability to track the responses of students to treatment. These requirements were obtained from literature and confirmed empirically. Three new requirements were gathered from the study. These were: High internet availability, peer counseling capabilities and ability for the e-Counseling system to integrate with other student records systems. These requirements could be prototyped into a web based system.

9. LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

This research is limited to institutions of Higher Learning in Ghana and the requirements identified are constrained by the practice of counseling in Ghana as required by Law. These individual requirements have also been claimed to be efficacious by various authors in the literature reviewed. The three new requirements elicited through the empirical study can be implemented. In future, the requirements gathered in this paper can be collectively implemented in an institution of Higher Learning. Researchers can also use the Technology Acceptance Model (TAM) to assess the acceptability of such a technology from both students and counselors perspectives. Future research can also look at whether e-Counseling in institutions of higher learning is as efficacious as face-to-face counseling.

10. REFERENCES


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