

**PAPER REDUCTION IN THE UNIVERSITY OF EDUCATION, COLLEGE OF AGRICULTURE EDUCATION, MAMPONG-ASHANTI**

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**ABSTRACT**

*This article seeks to highlight the numerous ways through which work organisations can cut back on the use of paper, save money, increase efficiency and reduce green house gases. It analyses the quantity of paper used in the various offices of the College of Agriculture Education of the University Education, Winneba juxtaposed with the percentage cost constituent of the College's 2014 annual budget and the percentage of a fully grown tree consumed in the production of the papers. The paper also analyses the cost effectiveness of automating organisational workplace as opposed to the traditional system with the use of scenarios and tables. The study made suggestions on how institutions could cut down on the use of papers, make cost savings and sustain the environment.*

Keywords: ecology, green house gases, Automation,

**1.0 INTRODUCTION**

The use of paper as a means of communication at work place organisations is inevitable. However, it is observed that the cost of paper constitutes a large chunk of the budget of most organisations. It is also observed that one (1) fully grown tree could produce 16.67 reams of A-4 copy paper. The number is equivalent to 8,335 sheets. This implies that in the production of every ream of A-4 paper (500 sheets), approximately six (6) percent of a tree is required (conserveatree.org.)

Considering the expensive cost of the use of paper as a means of communication on the budget of most work place organisations and the impact on the ecology of the planet, it is about time work place organisations resorted to electronic forms of communication and filing systems. Electronic forms of communication have the added advantage of processing information at a much lesser time, aside of cutting down cost and protecting the environment.

The College of Agriculture Education of the University of Education, Winneba, is mandated to train teachers for all levels of education and to conduct research and disseminate research findings, in addition to contributing to public policy on education. In the execution of this mandate, the College will inevitably use paper as one of the means of communication. In these days of cuts on the budget of institutions of higher learning by national governments, the College should be technologically more abreast of tools that could help cut back on paper usage for effective communication. As an Agricultural institution, the College should be well informed of the environmental impact on the excessive use of paper. This article seeks to discuss the numerous ways through which the College can cut back on the use of paper, save money, increase efficiency and ultimately reduce green house gasses.

## **2.0 THE USE OF PAPER IN THE COLLEGE**

The College of Agricultural Education of the University of Education, Winneba is made up of two (2) faculties, seven (7) academic departments and twenty-two (22) offices. Each of these offices stated below is allocated papers for the execution of its work.

The College gravely relies on A-4 and other papers for effective communication, student assignments, quizzes/examinations, student registration, vouchers for payment of claims, receipts, posters and many other purposes.

The rate of consumption of papers per each office for the year 2014 in the College is shown in Table 1.

**Table 1: Rate of Consumption of papers**


<b>Offices</b>	<b>Rate of Consumption of papers for all Offices (Reams)</b>	<b>Total Cost (Gh¢)</b>
Agric. Engineering & Mechanization Education Edu.	20	340
Dept. of Animal Science Edu.	10	170
Dept. of Agric. Econs Edu.	14	238
Dept. of Crop and Soil Sciences Educ.	16	272
Dept of DIS	77	1309
Deans Office, FSEE	26	442
Library	10	170
Environmental Science Edu.	29	493
Internal Audit	8	136
Hall	18	306
Security Office	1	17
University Relations Office	1	17
Deans Office, FAE	33	561
EFPO	18	306
ICT	21	357
Grounds	1	17
Finance	34	578
Accounts	41	697
Registry	96	1632
Postgraduate Office	8	136
EduLink	50	850
Estate	14	238
Principal's Office	40	680
Examinations Office	293	4981
Farm	8	136
Vice Dean	6	102
Integrated Science	15	255
Transport	4	68
<b>TOTAL</b>	<b>912</b>	<b>15,504</b>

In entirety, an estimated 912 reams and 44,025 answer booklets of eight leaflets were used during the 2014 fiscal year constituting 1.5% of the 2014 annual budget of the College. It can be distilled from Table 1 that the College of Agriculture Education alone used approximately Ninety Seven ( $\approx 97$ ) trees in 2014 (if 500 sheets take approximately 6% of a tree to produce). As an agricultural institution in the country, these statistics question the role we are playing to make this planet habitable for years to come.

It can be argued that if the same numbers of papers are used every day in organisations in Ghana then a way must be found out so that the excessive use of paper may not contribute immensely to deforestation, reduce the event of rainfall and oxygen for effective respiration. A way must also be found so that the use of paper alone does not take a chunk of the budget of such organisations.

The example below on the use of paper in the College would suffice to state that there is an excessive use of paper in communicating one piece of information from one level of authority to the other.

## Scenario 1:

<b>UNIVERSITY OF EDUCATION, WINNEBA</b> <b>COLLEGE OF AGRICULTURE EDUCATION</b>  <b>MAMPONG-ASHANTI</b>	
	
<b>MEMORANDUM</b>	
FROM	: Mr. Kankam Boadi
TO	: Principal
THRO	: HOD, CSSE
CC	: Dean, FAE
DATE	: 27 <sup>th</sup> August, 2013
SUBJECT	: <u>PERMISSION TO PRESENT RESEARCH PAPER</u>
Mr. Kankam Boadi	

Flow Diagram to the Scenario 1Permission to Present Research Paper

**Applicant writes to the HOD** (HOD makes a copy for filing)



**Letter is Forwarded to Dean, FAE** (Minutes to Principal and makes a copy for filing)



**Principal** (minutes to VC & makes a copy for filing)



**Vice-Chancellor** (Refers to Research & Conference Committee, makes a copy for filing)



**Research & Conference Committee** (Acts and advice the VC for managerial decision on the application. Retain a copy of full document)



**Vice-Chancellor** (Decides to approve or otherwise)

From the above scenario, it is observed that the application together with its supporting documents, including evidence to present the research findings, abstract of research, and type of transportation may constitute a total of eight (8) sheets. It can also be observed that sixty-four (64) sheets of A-4 paper would be required for this single transaction. It is worth noting that this is just one of the few transactions that occur in the University daily.

It is further observed that paper purchasing is not getting any cheaper, especially in the economy in which we find ourselves. The College must be spending tons of money on replenishing papers for the Campus and the expensive demands will not get any cheaper. It is about time the College designed and implemented measures to reduce high expenditure in the usage of paper.

Many authors have asserted that paper work is inevitable and forms an integral part of the management of the University. It has been agreed that lecturers need to hand out assignments and students need to complete assignments and hand them in. However, there is a need for paper reduction strategies such as WebCT and Moodle; an interactive virtual learning software currently being used in higher institutions of learning in most advanced countries. Thus, it is about time the University catches up with the way universities in developing countries have incorporated softwares that enable cutting back on the use of paper.

For this to be successful the support of top management in the College is crucial. The upsurge of electronic gadgets and sophisticated equipment makes this quest intriguingly assuring. Employees in some private organisations can boast of receiving their pay slips electronically, which demonstrates good start to paper reduction.

### **3.0 REDUCTION IN COST**

Cost savings and the provision of cost reduction opportunities, or “cost avoidance” are not new concepts in university administration. For some time, universities have been conducting cost analysis and cost savings activities to infuse best practices in their administrative procedures in respect of the use of papers. Paper continues to dominate in all activities since it deals with knowledge work, reading and collaboration. Paper has, therefore, become a display medium for human collaboration and its consumption is still on the increase.

The College of Agriculture Education could cut down cost if some measures are taken to reduce the usage of paper in the various offices. For instance, the College consumed 912 reams of A-4 paper. This quantity cost the College an amount of One Thousand, Eight Hundred and Twenty-Four Ghana Cedis (GH¢ 1,824).

Automating about 80% of our transactions would constitute 0.3% which is less 1.2% of the total amount spent on paper in 2014. It is observed that paper takes chunk of the College’s budgeted resource and the expansive demand would not get any cheaper.

Reduction in cost of paper would also reduce the amount of time spent on writings and typing memoranda, printing of papers, buying of cabinets for filing and the number of human resource personnel needed for an organisation to achieve high productivity and efficiency.

### **4.0 INCREASES IN EFFICIENCY**

Reduction in paper use and turning toward technology will increase efficiency because it saves time, costs and increase learning. As a cutting-edge institution, less paper usage

coupled with technology will require employees to learn modern technology through processing documents electronically, for instance electronic filing which opens up the opportunity for employees to work effectively thus improving efficiency and employee morale.

In offices where paper use is less, electronic faxes and email replace the need to print, this lowers the College' investment in reams of paper and the chances of losing important documents is lowered. If such a measure is adopted, the College is likely to use less physical space (<http://smallbusiness.chron.com>). In this sense, an up-to-date computer hardware and software is essential for the College to encourage less paper use in the various offices where systems always need to be upgraded. This offers strategic opportunities for increased efficiency

## **5.0 REDUCTION IN GREEN HOUSE EFFECT**

Another advantage of cutting back on the use papers in offices is the reduction in green house gases. This is because green house gases are compounds in the atmosphere that is capable of absorbing infrared radiation by trapping and holding heat in the atmosphere which ultimately leads to global warming. Trees on the other hand, absorb these green house gases such as carbon dioxide into their cells through the process of photosynthesis. They then store the carbon dioxide for the life of the plant, helping to reduce emissions ([livescience.com](http://livescience.com)).

With the automation of most workplace organisations and the enactment of laws such as the Paper Reduction Act of 1980 by the United States Government, the Forestry Division was able to store the equivalent of hundred (100) million tons of carbon dioxide through absorption by trees thereby reducing emissions and ultimately limiting the impact of global warming (<https://www.epa.gov/>)

It is observed that huge quantities of used papers left at landfill sites also gradually decays and releases methane into the atmosphere which is capable of displacing the atmospheric oxygen needed for respiration. It is therefore imperative that we adopt a more eco-friendly approach to make our planet habitable.

## 6.0 RECOMMENDATION

Measures to be adopted to help paper reduction in the College

### I. Encourage Online Use

Most Colleges in the developing world are now doing courses and assignments online and this has limited the use of papers. Hence, a drastic reduction in the cost of paper use. This proposal would encourage students to become more computer savvy.

### II. Free Software Platforms

Various free software platforms are the technological norms in universities today in a bid to cut back on the use of papers. Moodle is one such software that can be considered. According to Douglas (2010), Moodle is a virtual learning experience which is based on students being able to get, do and learn through this software online. Besides, Moodle is recognised as a secure medium through which students and Faculty can interact. Therefore, it is recommended that it should be adopted and used by students and faculty of the College.

### III. Use of Drop Box

Drop box has become the en vogue technological tool being used in a lot of departments and offices these days. In addition to being cheap, Drop box is user-friendly software. It functions as a mail box created in an extranet space that can be accessed on certain computers, only by people who have access to it (White, 2002). This means that Faculty or Departments can access mail, assignments and memos through these boxes, regardless of which part of campus they are located.

### IV. Electronic Data Interchange

Web-based secure transfer sites are forms of technology that most organisations have adopted for their operations. It is on the same score, many Universities are now using interchangeable data tools like faxes and electronic memos through which departmental members can stay in communication and work hand in hand. Consequently, it is appropriate that the College of Agriculture Education avail itself of this technological innovation.

### V. Recycling Projects.

Recycling papers is regarded as a very sophisticated way of dealing with paper waste. University officials can strike up partnerships with companies that recycle papers to help save the trees and keep the environment safe.

This recommendation is being made because one of the main tools implemented in Colleges in the developed world, have been the placement of



simple bins at vantage points on university campuses, from where the waste papers are collected and recycled.

#### VI. Paper Shredders

This may be a slightly expensive task, but one that stands a grave chance of eliminating loads of papers that will be tossed around the College. Shredders should be kept in the computer labs and areas where students study the most and have the papers shredded to avoid the littering of the Campus.

### CONCLUSION

In an era where practically everything is being computerised, it is imperative that work place organisations followed modern trends so as to be abreast of tools that help cut back on the use of paper thereby improving efficiency, productivity and ultimately reduce cost. Also, with the continuous deterioration of the ozone layer, more trees are needed to prevent the build-up of carbon dioxide in the atmosphere and protect the planet we live on. It is, therefore, important that the College of Agriculture Education should take measures to protect the planet by using less paper.

The measures highlighted in this paper have the potential to help the College not only financially, but also ecologically to keep the College of Agriculture Education of the University Education, Winneba, technologically up to speed.

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