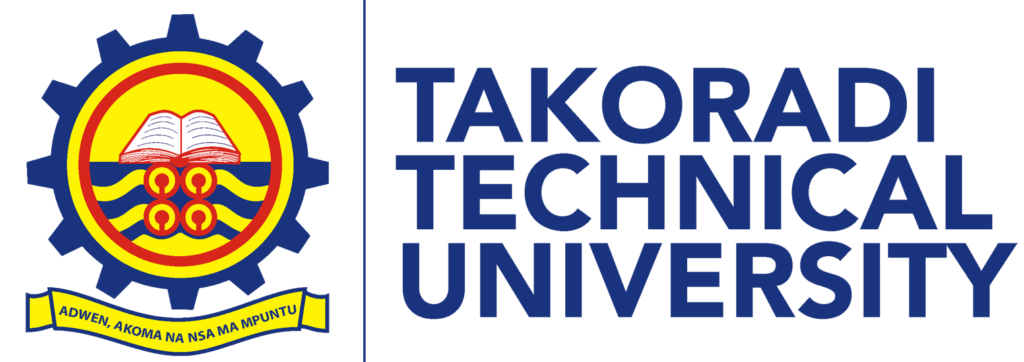
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**FACULTY OF APPLIED SCIENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

**BACHELOR OF TECHNOLOGY IN INFORMATION TECHNOLOGY (300)**

**RESEARCH PROPOSAL FOR THE INFLUENCE OF ONLINE LEARNING ON ACADEMIC PERFORMANCE**

**GROUP TWO MEMBERS**

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| **NAME** | **INDEX NUMBER** |
| ANGELA TENKORANG | BCICT20067 |
| ASANTE NYARKO DAVIS | BCICT20106 |
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1. **TITLE : THE INFLUENCE OF ONLINE LEARNING ON ACADEMIC PERFORMANCE**
2. **INTRODUCTION**

Higher education institutions have shifted from traditional face to face to online teachings. However the online teaching/learning constitutes a serious challenge that both university teachers and students have to face, as it necessarily requires the adoption of different new teaching/learning strategies to attain effective academic outcomes, imposing a virtual learning world which involves from the students’ part an online access to lectures and information, and on the teacher’s side the adoption of a new teaching approach to deliver the curriculum content, new means of evaluation of students’ personal skills and learning experience. This chapter explores and assesses the online teaching and learning impact on students’ academic achievement.

Research focuses on the students’ main source of information through library online consultation and the collaboration with their peers. To reach this end, descriptive and parametric analyses are conducted in order to identify the impact of these new factors on students’ academic performance. The findings of the study shows the extent’ online learning has or has not led to any remarkable improvements in the students’ academic achievements and any changes in their e-learning competence

1. **SOURCES OF DATA**

Data sources is any location where researchers can obtain relevant information and data related. Below are some sources where data was collected to work on the topic:

* Schools, colleges, universities, and online learning platforms can provide academic records, grades, attendance data, and other metrics relevant to students' online learning experiences and academic outcomes. These records can provide valuable insights into students' academic achievements and progress over time.
* Surveys and questionnaires can be used to capture data on various aspects related to online learning, such as student satisfaction, engagement levels, study habits, technology usage, and perceived impact on academic performance. Surveys help researchers obtain self-reported data and opinions from participants, allowing them to explore the subjective experiences and attitudes towards online learning.
* Researchers can review existing academic literature and studies related to online learning and its influence on academic performance. This meta-analysis approach can provide insights and data from various studies conducted by other researchers.
* Using data from Massive Open Online Courses (MOOCs) and other online learning platforms. These platforms have aggregated data on user engagement, course completion rates, and learner performance which can greatly help researchers to make good decisions and analysis.

1. **DATA COLLECTION PROCEDURE**

* Designing Surveys and Questionnaires: Researchers can create structured surveys and questionnaires to gather data directly from students, educators, and parents. These surveys should include questions about online learning experiences, academic performance, study habits, technology access, engagement levels, and other relevant factors.
* Accessing Educational Institution Data: If the research involves analyzing academic performance data from educational institutions, researchers should seek permission from the respective authorities and comply with data privacy regulation
* If the research aims to observe the long-term impact of online learning on academic performance, researchers may need to follow a cohort of students over an extended period. Longitudinal studies require careful planning and continuous data collection over time.

1. **DATA ANALYSIS PROCEDURES**

* T-tests and Analysis of Variance (ANOVA) are useful when comparing the means of two or more groups. A t-test was used to compare the academic performance of students in online learning against those in traditional in-person learning.
* Propensity Score Matching (PSM): PSM is a method used to reduce bias in observational studies. It attempts to match individuals from the online learning group with similar characteristics to individuals in the in-person learning group. This helps to approximate the effects of online learning on academic performance more accurately.
* Meta-analysis was used to combine the results of multiple studies quantitatively, providing a more comprehensive overview of the overall effect.
* Regression analysis allows you to examine the relationship between one or more predictor variables (online vs. in-person learning) and the outcome variable (academic performance). You can perform simple linear regression or multiple regression, considering other relevant factors that might influence academic performance.