**UNIVERSITY OF CAPE COAST**

**SCHOOL OF ECONOMICS**

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**DEPARTMENT OF DATA SCIENCE AND ECONOMIC POLICY**

**COURSE: DATA CURATION AND MANAGEMENT**

**COURSE TITLE: DMA820**

**ASSIGNMENT**

**LECTURER: DR RAYMOND ELIKPLIM KOFINTI**

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| NAME:  CLEMENT KWAKU BOADU | INDEX NUMBER  SE/DMD/24/0021 |

# ASSIGNMENT QUESTIONS

1. Produce two two-page commentary on data policy of your respective organization covering the following areas

* Structure of data dissemination
* Format of data dissemination
* Data sharing protocols and procedures
* Data visibility

1. Suggest ways by which the mentioned areas of data curation can be improved/ implemented in your organisation.

**LEDZOKUKU MUNICIPAL EDUCATION DIRECTORATE: DATA POLICY COMMENTARY**

**CURRENT DATA POLICY**

1. Structure of data dissemination
2. **Hierarchical Flow:** Data is prepared by the head teacher with assistance from a tech-savvy staff, preferably IT/Computing teachers at the school level. This data is then transmitted to the scheduled officers who collate the data for the directorate at the municipal level after cleaning the data and seek the approval of the deputy director of one of the seven units, followed by final approval from the municipal director before it is finally submitted to the regional schedule officer, who manages the data at the regional level and then transmits it to the GES headquarters or the Ministry of Education.
3. **Internal silos:** academic data, financial data, human resources development data, and statistics and planning data are managed separately by units (e.g., HRMD, Planning and Statistics, Accounts).
4. **Frequency:** termly or annual aggregation (enrolment, BECE results, programme/intervention reporting (e.g., Galop, Safe School Reporting).
5. Format of data dissemination

* Primary formats

Physical: handwritten school attendance registers prepared by teachers,

Monthly reports by headteachers and School Improvement Support Officers

Digital: Excel sheets, Google Forms, ODK, kobo collect

Limitations: Inadequate tech-savvy school heads have limited knowledge of using digital data (paperless forms),

1. Data sharing protocols

* Formal procedure

*Internal:* Municipal education data request requires the approval from the head of unit,

*External:* NGOs/researchers' data requests are approved by the municipal director of education with the notice of the head of the appropriate unit. Data anonymisation for school data requests is advised in compliance with the Ghana Data Protection Act 2012.

* Gaps; there is no standardised data request form, requests are mainly from regional officers and the municipal assembly, as well as other government agencies and departments.

1. Data visibility

Channels:

Active; Annual education sector review report on pre-tertiary education in Ledzokuku municipal; via Facebook and WhatsApp channels

Inactive: LekMED lens, a digital monthly newsletter is rarely published, this this handled by the community liaison unit.

Transparency issues: Financial allocation data is often delayed or not reported.

1. **IMPROVEMENT AND RECOMMENDATIONS**
2. Structure of dissemination

* Centralised web-based data hub: create a municipal education directorate interactive dashboard integrating school statistics, finance, infrastructure data, as well as on -ongoing programmes and intervention reports.
* Automated workflows; build capacity of schools and offices to roll out the implementation of digital data collection tools such as Kobo Collect for real-time school data collection. This is to minimise the manual aggregation

1. Format standardisation

* Adoption of open formats; a gradual shift to CSV for datasets and publishing reports as PDF, which is searchable
* API integration; synchronising live EMIS national data with school-level data validation.

1. Data sharing protocols.

* Digital request system: implement an online portal for data requests with automated approval for workflows
* Compliances: mandatory training of planning and statistics staff on data protection and management, Ghana Data Commission Certification
* Anonymisation guidelines for student-related research work and reporting.

1. Enhanced visibility

* Digital platform; develop a municipal education portal that encompasses interactive dashboards (eg power BI) for enrolment, academic performance, teacher deployment and student admission.
* Social media strategy: monthly bulletins on Facebook and WhatsApp
* SMS alerts on exam updates and PTA alerts, levies.

1. Cross-cutting initiatives

* Capacity building; train staff in data curation and management
* Stakeholder feedback; ADEOP (Annual District Education Operation Plan) reporting and reviews to identify community data needs
* Cost efficiency; utilize the free tools to enhance data management and to minimise expenses