**UNIVERSITY OF CAPE COAST**



**COLLEGE OF HUMANITIES AND LEGAL STUDIES**

**SCHOOL OF ECONOMICS**

**DEPARTMENT OF DATA SCIENCE AND ECONOMIC POLICY**

**2024/2025 ACADEMIC YEAR**

**COURSE TITLE: DATA CURATION AND MANAGEMENT PLANS**

**COURSE CODE: DMA820**

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**REGISTRATION NUMBER: SE/DMD/24/0012**

1. **Data quality performance indicators recommendable for meeting the the mission of Ghana Education Service(GES)**

* **Accuracy**

The degree to which data correctly describes the real world object or event it represents. Inaccurate data can lead to wrong decisions, poor planning, and reputational damage.

Ensuring education data correctly reflects the real situation in schools, districts, and regions is very vital.

In GES, Student enrolment figures, teacher qualifications, and examination results must be recorded exactly as they are in reality.

*Impact on Vision*:This Supports evidence-based policy decisions that improve teaching and learning outcomes.

* **Consistency**

The extent to which the same data is the same across different datasets and systems.

Education data must remain uniform across all reporting platforms and databases.

For example: A school’s enrolment figure in the District Education Office database should match the one in the National Education Management Information System (EMIS).

*Impact on Vision*: This prevents conflicting statistics that could undermine trust in GES reports.

* **Completeness**

The extent to which all required data is available. Missing values can distort analysis and affect service delivery.

All essential education-related data must be captured with no missing information. For example every school’s annual report should include full data on attendance, infrastructure, staffing, and resources.

*Impact on Vision*: Ensures fair allocation of resources and effective monitoring of school performance.

* **Timeliness**

Data must be up-to-date and available when needed for planning, monitoring, and evaluation.

In GES updating teacher deployment and student enrolment data before the start of each academic term.

*Impact on Vision*: Enables quick, informed responses to emerging challenges in the education sector.

* **Validity (Conformance)**

Education data must follow approved formats, definitions, and standards.

School codes, teacher ID formats, and gender categories must conform to GES and EMIS guidelines.

*Impact on Vision*: Enhances data comparability across districts and regions for national reporting.

* **Uniqueness**

Each record in the education database must be distinct and non-duplicated.

Each student and teacher must have one unique ID to prevent double counting in reports.

*Impact on Vision*: Ensures accuracy in statistical indicators like pupil–teacher ratio and literacy rates.

1. **Administrative data points Ghana Education Service should Prioritize for the next 5 years**

* **Student Enrolment Data**

What to Archive: Annual enrolment figures by school, district, gender, age, and grade.

Justification:Student enrolment data helps tracks trends in access to education and progress toward universal basic education.

Supports resource allocation, school infrastructure planning, and targeted interventions for under-served areas.

* **Teacher Records and Deployment Data**

What to Archive: Teacher personal data, qualifications, postings, transfers, and professional development history(promotions).

Justification: Critical for addressing teacher shortages and ensuring equitable distribution across rural and urban schools.

Facilitates long-term workforce planning and policy evaluation on teacher quality.

* **Examination and Assessment Results**

What to Archive: BECE, WASSCE, and internal assessment results, dis-aggregated by school and subject.

Justification:

Helps monitor learning outcomes and evaluate curriculum effectiveness.

Identifies achievement gaps between regions, genders, and school types to inform remedial policies.

* **School Infrastructure and Facilities Data**

What to Archive: Data on classrooms, laboratories, libraries, sanitation facilities, and teaching/learning resources.

Justification:

Guides capital investment planning and maintenance priorities.

Allows GES to monitor compliance with minimum school facility standards.

* **Attendance and Dropout Records**

What to Archive: Annual student and teacher attendance rates, dropout counts, and reasons for dropout.

Justification: Informs interventions to reduce absenteeism and improve retention, especially in vulnerable communities.

Enables early detection of school disengagement trends