**UNIVERSITY OF CAPE COAST**

**SCHOOL OF ECONOMICS**

****

**DEPARTMENT OF DATA SCIENCE AND ECONOMIC POLICY**

**COURSE: DATA CURATION AND MANAGEMENT**

**COURSE TITLE: DMA820**

**ASSIGNMENT**

**LECTURER: DR RAYMOND ELIKPLIM KOFINTI**

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

# ASSIGNMENT QUESTIONS

1. Outline six (6) data quality performance indicators recommendable for meeting the vision of your institution (one page)
2. Identify and justify five administrative data points your organisation should prioritise for achieving for the next five years (1 page)

**Here are six data performance indicators aligned with the Ledzokuku Municipal Education Office vision (improved access, quality, equity, and efficiency), specifically recommended**

1. **GROSS ENROLMENT RATIO (GER):** Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school year. This is Crucial for identifying gaps in enrolment (by circuit, gender, socio-economic status) and targeting interventions.
2. **TRANSITION RATE (TR):** The number of pupils (or students) admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils (or students) enrolled in the final grade of the lower level of education in the previous year. This is relevant to convey information on the degree of access or transition from one cycle or level of education to a higher one.
3. **OUT-OF-SCHOOL CHILDREN-PRIMARY (OOS):** Children in the official primary school age range who are not enrolled in either primary or secondary schools. It identifies the size of the population in the official primary school age range who should be targeted for policies and efforts in achieving universal primary education.
4. **DROPOUT RATE BY GRADE (DR):** Proportion of pupils from a cohort enrolled in a given grade at a given school year who are no longer enrolled in the following school year.Its vitalin measuring the phenomenon of pupils from a cohort leaving school without completion, and its effect on the internal efficiency of educational systems
5. **PERCENTAGE OF TRAINED TEACHERS:** Number of teachers who have received the minimum organised teacher training (pre-service or in-service) required for teaching at the specified level of education in the given country, expressed as a percentage of the total number of teachers at the same level of education. It is used to measure the proportion of teachers trained in pedagogical skills, according to national standards, to effectively teach and use the available instructional materials.
6. **GENDER PARITY INDEX (GPI):** Ratio of female to male values of a given indicator. The GPI measures progress towards gender parity in education participation and/or learning opportunities available for girls concerning those available to boys. It also reflects the level of girl’s empowerment in society.

**Based on SDG 4’s core targets (inclusive access, quality learning, equity, relevant skills, and safe learning environments), here are five critical administrative data points that should be prioritised, along with justifications:**

**1**. **Out-of-School Children (OOSC) by Age, Gender, and Geographic Location (Circuit/Zone):**

**Justification:** This is the fundamental data point for achieving inclusive and equitable quality education (SDG 4.1, 4.5). Identifying exactly which children are not enrolled (and, importantly, why, through linked surveys or community data) allows for targeted interventions.

**2. Pupil-Teacher Ratio (PTR) Disaggregated by School Level (KG, Primary, JHS) and School Location (circuit):**

**Justification:** PTR is a critical proxy indicator for learning quality and conditions (SDG 4.1, 4.c). Disaggregating by level and location reveals stark inequities often masked by municipal averages. A high PTR in specific JHS schools or remote circuits directly impacts the quality of instruction, individual attention, and classroom management, hindering learning outcomes.

**3. Textbook-to-Pupil Ratio (Core Subjects: English, Mathematics, Science) by School:**

**Justification:** Access to adequate learning materials is fundamental for achieving effective learning outcomes (SDG 4.1). This data point provides a tangible measure of resource adequacy at the classroom level. Consistently low ratios (e.g., 1 textbook per 4+ pupils) severely hamper teaching effectiveness and independent study

**4**. **Primary to JHS Transition Rate (Disaggregated by Gender and Sending School/circuit):**

**Justification:** This measures retention and progression (SDG 4.1), a key indicator of system effectiveness and relevance. A significant drop-off between Primary 6 and JHS Form 1 signals problems (cost barriers, perceived irrelevance of JHS, lack of nearby JHS, early marriage, child labour).

1. Proportion **of Schools with Access to Basic, Functional WASH Facilities (Sex-Separated Toilets, Potable Water, Handwashing Stations) Meeting Minimum Standards:**

**Justification:** This is essential for safe, inclusive, and conducive learning environments (SDG 4.a). Poor WASH directly impacts health (causing illness and absenteeism), dignity (especially for menstruating girls), inclusion (children with disabilities), and overall well-being.

In conclusion, by rigorously prioritising and utilising these five administrative data points, the Ledzokuku Municipal Education Directorate can move decisively from broad SDG 4 aspirations to concrete, targeted actions that address the most critical barriers to inclusive, equitable, quality education within its jurisdiction.