**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**

**LECTURER: DR RAYMOND ELIKPLIM KOFINTI**

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ASSIGNMENT QUESTIONS

* Outline six (6) Data quality performance indicators recommendable for meeting the vision of your institution. (One page)
* Identify and justify administrative data points your organization should prioritise for archiving for the next five years. (1 page)

**AKOSOMBO VRA JHS NO.2**

The vision statement of the school is to ensure academic excellence and bring out all round developed personalities capable of contributing their quota to the socio-economic development of the society and the nation at large.

* **DATA QUALITY PERFORMANCE INDICATORS FOR MEETING THE VISION**

In pursuit of academic excellence and the development of well-rounded personalities who contribute significantly to socio-economic growth, as a student of data curation and management planning, I recommend the following data quality indicators.

* **Accuracy:** Every student’s academic and personal records must be free from errors. This ensures correct assessment, placement and reporting, allowing the school to make well-informed decisions that uphold high standards of excellence. For example, ensuring that a student’s date of birth, subject scores are entered correctly in the FK report card software without typographical mistakes.
* **Completeness:** All requireddata fields such as student biodata, subject scores, teacher details must be fully captured. Incomplete records could hinder the school’s ability to track performance and provide targeted support. For example, leaving out a student’s continuous assessment scores could result in an inaccurate final grade calculation.
* **Consistency:** Information across various school systems (e.g., FK report card software, GES databases, manual registers) must match, preventing conflicts in student results and performance history. For instance, a student’s end-of-term average in the FK report card software should be identical to the figure recorded in both the GES database and the school’s manual record.
* **Timeliness:** Data such as exam results, attendance, disciplinary records) must be updated promptly to ensure decisions and interventions are based on the most current and relevant information available.
* **Relevance:** The data gathered should align directly with the school’s vision and mission, prioritizing academic performance, personal growth and leadership development while avoiding the collection of unnecessary or unrelated information. For example, recording a student’s favourite music genre adds no value to academic or developmental goals and therefore must not be collected.
* **Accessibility:** Authorized staff should have secure and seamless access to data, enabling timely decision-making without delays caused by inadequate storage systems or inefficient retrieval processes. For example, replacing outdated manual filing cabinets with a well-organized, password-protected digital database.
* **ADMINISTRATIVE DATA POINTS TO PRIORITISE FOR ARCHIVING (NEXT 5 YEARS)**

To maintain an effective record system and support long-term strategic goals, Akosombo VRA JHS No. 2 should prioritise the following data points:

* **Student Academic Performance Records:** Systematically tracking both termly and annual results provides a robust foundation for monitoring academic progress, identifying performance trends and refining teaching strategies to sustain excellence. For example, analyzing three consecutive years of mathematics scores can reveal whether a decline in results is linked to curriculum changes, teaching methods or resource availability, enabling timely and targeted interventions.
* **Attendance and Punctuality Records:** Maintaining accurate and well-structured attendance and punctuality records is critical, as consistent patterns often correlate with academic performance and discipline levels. Archiving this data over time enables early identification of at-risk students. For example, detecting a pattern where a student misses classes every Monday could prompt further investigation and timely support to address underlying issues before they affect academic outcomes.
* **Teacher Performance and Professional Development Records:** Systematically maintaining detailed records of teacher appraisals, professional training and achievements is essential for sustaining high-quality education. Well-curated datasets enable school leadership to monitor instructional effectiveness, plan targeted capacity-building and recognize excellence. For example, tracking a teacher’s participation in annual ICT integration workshops alongside their students’ improved digital literacy scores can demonstrate the direct impact of professional development on classroom outcomes.
* **Extracurricular and Leadership Participation Records:** Systematically recording students’ participation in clubs, sports, cultural activities, and leadership roles is vital to fulfilling the school’s vision of developing well-rounded individuals. Properly curated datasets allow the school to measure and promote holistic development beyond academics. For example, documenting a student’s role as a debate club president alongside their strong communication skills in class assessments can provide evidence of leadership growth and personal development.
* **Infrastructure and Resource Utilization Data:** Data on classroom usage, learning materials and ICT facilities helps in planning for future resource needs and ensuring an optimal learning environment.

REFERENCES

Borgman, C. L. (2015). Big Data, Little Data, No Data: *Scholarship in the Networked World*:

MIT Press.

English, L. P. (2009). Information Quality Applied: *Best Practices for Improving Business*

*Information, Processes and Systems*: Wiley.

Kahn, B. K., Strong, D. M., & Wang, R. Y. (2002). Information quality benchmarks: *Product*

*and service performance.* Communications of the ACM, 45(4), 184–192.

Otto, B. (2011). Quality management of business data: *An empirical investigation in the*

*context of product data management. Business & Information Systems Engineering*,

3(4), 241–250.

Wang, R. Y., & Strong, D. M. (1996). Beyond accuracy: *What data quality means to data*

*consumers*. Journal of Management Information Systems, 12(4), 5–33.