Data Quality and Data Archiving

ASSINGMENT 2 – DATA CURATION AND MANAGEMENT (DMA820)

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1. Six Data Quality Performance Indicators for NaSIA

Introduction

The National Schools Inspectorate Authority (NaSIA), mandated under the Education Regulatory Bodies Act, 2020 (Act 1023), oversees quality assurance in Ghana's pre-tertiary education sector. To meet its mandate of ensuring high standards in school inspection, licensing, and compliance monitoring, NaSIA requires robust data quality performance indicators (DQIs) to guarantee that decisions and policies are based on reliable information.

Six Recommended Data Quality Performance Indicators:

No.	Indicator	Definition	Relevance to NaSIA
1	Accuracy	The degree to which data correctly describes the real-world entity or event it represents.	Inaccurate inspection scores or license details can mislead regulatory actions. Ensuring data accuracy protects the integrity of inspection outcomes and policy recommendations.
2	Completeness	The extent to which all required data is available without omissions.	
3	Timeliness	The degree to which data is up-to-date and available when needed.	NaSIA's decisions on school licensing or sanctions require current data from inspections and licensing activities to be effective and legally defensible.
4	Consistency	The uniformity of data across different datasets and over time.	Inconsistent school names, license numbers, or inspection formats across NaSIA's database and reports can cause duplication, regulatory errors, and inefficiency.
5	Validity	The degree to which data conforms to the defined formats, standards, or rules.	Ensuring license numbers follow the approved alphanumeric pattern prevents fraudulent entries and supports database integrity.
6	Accessibility	The ease with which authorized stakeholders can retrieve and use the data.	Timely access for inspectors, policymakers, and legal officers supports swift regulatory interventions and public reporting obligations.

Conclusion

Adopting these six DQIs will enable NaSIA to maintain a credible, authoritative database that strengthens its capacity to monitor compliance, enforce regulations, and provide data-driven insights to the Ministry of Education and other stakeholders.

2. Five Administrative Data Points NaSIA Should Prioritize for Archiving

Introduction

NaSIA's operational and strategic effectiveness depends on its ability to maintain historical records for trend analysis, compliance tracking, and policy evaluation. Prioritizing critical administrative data for archiving over the next five years ensures regulatory continuity and supports the Authority's legal mandate.

No.	Data Point	Description	Justification
1	School Licensing Records	Includes license number, issue date, expiry date, and renewal history.	Enables tracking of licensing compliance, facilitates legal enforcement, and supports annual reporting to the Ministry of Education.
2	Inspection Reports and Ratings	Detailed findings from regular and special inspections, including compliance scores and recommendations.	Provides an evidence base for regulatory decisions, trend analysis of school quality, and public accountability reports.
3	Sanctions and Compliance Actions	Records of warnings, fines, license suspensions, closures, and follow-up actions.	Essential for legal defense, monitoring repeated offenders, and evaluating the effectiveness of enforcement measures.
4	School Infrastructure and Resource Data	Information on classroom facilities, laboratories, ICT resources, sanitation, and safety compliance.	Supports planning for infrastructural improvement programs and informs collaboration with development partners.
5	Staffing and Qualification Records	Teacher qualifications, headteacher credentials, professional development records.	Enables analysis of the relationship between teacher quality and school performance and supports capacity-building strategies.

Conclusion

Archiving these five administrative data points will position NaSIA to deliver on its mandate with efficiency, transparency, and accountability. Over the next five years, maintaining these datasets will also enhance longitudinal studies, policy adjustments, and operational planning in Ghana's pre-tertiary education sector.