



Title: Higher Education Practice Standard for
The Data Value Chain

1. Preamble for the HEPS on *The Data Value Chain*

The Quality Assurance Framework (QAF) is focusing on innovation, as evidenced by its emphasis on the use of information and communications technology (ICT) and the generation of new knowledge, ideas and methodologies as integral to institutionalising quality in higher education (HE). In support of this higher education practice area, the primary purpose of HEPS on *The Data Value Chain* is to provide some guiding principles for consideration, in a reflective and generative way, when designing and developing an institutional data value chain management system in the HE sector. Due to its nature and focus, this HEPS is interlinked with all the other CoPs of the QAF and provides an overarching approach to the data and information management systems necessary to support quality assurance.

This standard recognises that each institution, whether public or private, is different in the level of maturity of its data governance, data systems and resources. As a result, this standard encourages each institution to reflect on and describe its internal arrangements regarding data governance, data systems and related resources based on its unique context. In this way, institutions will be able to ascertain the extent to which they are able to plan, make decisions and make improvements based on a reliable data value chain management system that promotes quality.

Further, the HEPS on *The Data Value Chain* invites institutions to not view data collection and application for statutory reporting and basic analysis only, but also to develop innovative

ways and ideas of sourcing and applying additional “non-traditional” data variables which will provide new insights for understanding the internal and external environments that impact higher education.

The HEPS on *The Data Value Chain* is thus providing space for institutions to reflect on their data value chain management systems, ranging from data governance, data systems, related data resources and data capabilities, to data collection and data application. This HEPS, therefore, allows institutions to ascertain how the various steps and phases of the data value chain management system within their context is influencing their quality, planning, decision-making, monitoring and evaluation processes.

2. Rationale for the HEPS on *The Data Value Chain*

The HEPS on *The Data Value Chain* plays a critical role in supporting and enabling institutions to generate and provide reliable information and data not only for their internal quality assurance systems and statutory reporting, but also for achieving transformational progress in the key aspects of higher education, namely, learning and teaching, research and community engagement.

In this context, the concept of a data value chain management system encompasses all policies, procedures, processes, infrastructure and responsibilities (including governance and leadership arrangements) necessary for data preparation, data analysis, data dissemination and data application (data outcomes and impact) at the various operation levels within each institution (see Figure 1). This HEPS invites institutions to reflect on their proficiency, as well as areas of improvement, in their data value chain management system.

The HEPS on *The Data Value Chain* is not a list of compliance requirements; rather, it is as a collection of guiding principles aimed at institutionalising a quality culture through the dissemination of accurate and reliable data and information.

Given that HEIs have an existing wealth of student and staff data (including other institutional datasets) that are reported regularly to internal and external stakeholders, and that HEIs are continuing to collect and analyse for various purposes, the data should be used by decision- and policy-makers to improve the student and staff experience, as well as the quality, effectiveness and efficiency of institutions. Data systems should be designed and used not only for efficiency but also for transformation—supporting disaggregated equity analyses, transparent reporting, and institutional accountability for redress.

This HEPS should be read in conjunction with all other HEPS, particularly those on *Student Administration*, *Institutional Identity and Agency*, *Programme Processes*, *Learning Environments*, and *Research and Innovation*, as robust data systems enable accountability, integration, and transformation across the higher education ecosystem.

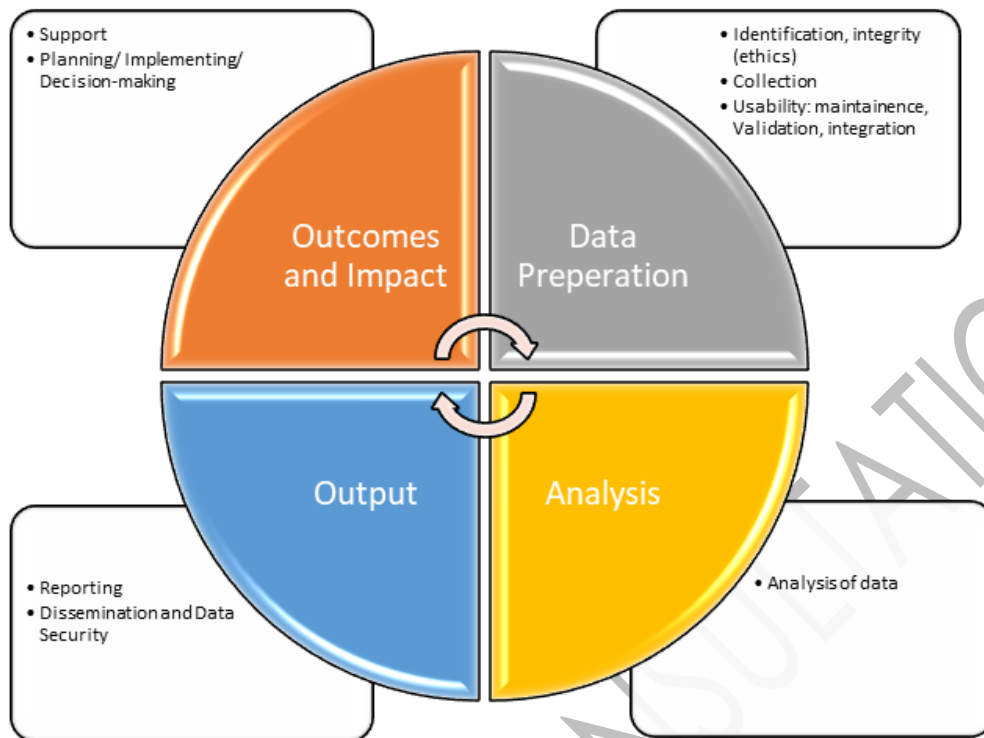


Figure 1: Conceptual framework for the HEPS on *The Data Value Chain*

3. Statement for the HEPS on *The Data Value Chain*

Institutions should ensure that data is collected and used by HEIs and their stakeholders and is of the highest quality, adheres to ethical principles, is secured and confidential, serves its intended purpose and leads to informed decision-making.

4. Guidelines for the HEPS on *The Data Value Chain*

THEME 1: DATA PREPARATION

Data Identification & Integrity	Are there effective and efficient planning processes in the institution for data identification?
	How are the governance and management structures of the institution involved in planning of the data identification?
	To what extent are ethical considerations included in the planning of data identification by the institution?
	Describe the mechanisms that the institution has for data collection and data storage?
	To what extent is the transformation agenda incorporated into the data identification by the institution?
Data Collection	Are there effective and efficient planning processes in the institution for data collection?
	To what extent are ethical considerations, as well as compliance to the POPI Act, included in the planning of data collection by the institution?
	What considerations has the institution put in place to ensure that the collected data is representative of the sample population (institutional context)?
	How does the institution ensure that participants give consent for data collection?
Data Usability	What mechanisms does the institution have for ensuring data quality (accuracy, completeness, consistency, reliability, etc.)?
	How does the institution ensure that appropriate hardware and software are in place for maintenance and integration of data?
	How does the institution ensure easy, effective and efficient access to data to enable decision making? Is it experienced as such by users?

THEME 2: DATA ANALYSIS

Quantitative, Qualitative & Mixed methods Analysis	Are the planning processes in the institution for data analysis (including the types of analysis) efficient and effective?
	How does the institution ensure that the analysts have the appropriate skills and that these are developed continuously?
	How does the institution ensure that analysts are provided appropriate access to the relevant datasets?

THEME 3: DATA OUTPUTS

Reporting & Dissemination	Are the planning processes that the institution has for data reporting (i.e. to ensure transparency and accuracy) effective and efficient?
	Are the mechanisms that the institution has for ensuring access to presentations, dashboards and technical reports effective and efficient? Are they experienced as such by the users?
	How does the institution ensure that the analysts have the appropriate skills for data reporting?

THEME 4: DATA OUTCOMES AND IMPACT

Support Mechanisms, Planning, Implementation, M&E, Decision-Making, & Impact	What arrangements (policies and procedures) are used by the institution to ensure that the institutional planning processes are based on data?
	What governance and management structures of the institution are responsible for incorporation of data insights into institutional decision-making processes?
	What monitoring and evaluation (M&E) processes are used to assess transformational progress and improvements at the various levels of the institution?
	What types of data and information are readily available to both internal and external stakeholders for decision-making?
	What arrangements (policies and procedures) are used by the institution to ensure that their transformation plans are based on and informed by data?
	Are the M&E processes that the institution has in place to ensure the effective use of data in improving institutional performance and transformation, effective and efficient?

5. Criteria

Criteria are the instruments to determine whether the standard is being met or not. They are benchmarks for evaluation and for making quality judgements about higher education activities based on the standards and guidelines agreed upon by the Higher Education (HE) sector. The Criteria depend closely on the purpose of the quality judgement that it is meant to be used for.

Criteria are not included in the standard description. This is because the criteria will be developed to be relevant to the specific quality assurance exercise that is being conducted. This could be an internal quality assurance exercise conducted by an institution, or a specific external quality assurance activity to be conducted by the CHE. Criteria are therefore activity, time and context specific. Some criteria, for example the criteria for accreditation, will be in place for a longer period.

Whenever an External Quality Assurance (EQA) activity is to be undertaken, the CHE will reconvene the Community of Practice to develop the relevant criteria for the exercise.

6. Review of the HEPS

It is understood that the HEPS will be regularly reviewed and revised in an iterative way to account for change. The HEPS on *The Data Value Chain* will be in place for the first iteration of the QAF, which is for 7 years. However, because the data value chain is heavily reliant on developments in ICT, software development and Artificial Intelligence, this HEPS will be reviewed in 3 years.

7. References

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