

XJTLU Undergraduate Program Teaching Data Platform

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1. Background

Prior to the establishment of the Undergraduate Program Teaching Data Platform, the Education Quality Assurance (EQA) department was responsible for evaluating whether each academic program met the requirements of the "National Teaching Quality Standards for Undergraduate Programs" based on specified teaching indicators, combined with data on dedicated faculty and students for each program. The complex logic for calculating these indicators, coupled with manual computation that was time-consuming and prone to error, made it difficult to efficiently respond to the quality assessment requirements of educational authorities. Data was presented in scattered raw tables, making it challenging for management to intuitively grasp program quality, which affected decision-making.

2. Solutions

1. **Unified Data Collection Standards:** Based on the undergraduate program teaching indicator requirements provided by the EQA department, EQA Program Data Collection Specifications were established. The Data Middle Platform clarified the statistical definitions, data import points, and update cycles for corresponding indicators, standardizing data source formats and the calculation logic for indicators, thereby replacing manual operations.
2. **Optimized Data Visualization:** The X-Report platform was equipped with multi-dimensional data filtering capabilities. User permissions were allocated by school/department, supporting the visual display of core indicators. Unmet indicators were flagged with warnings, with clear explanations provided for special circumstances, thereby improving interpretation efficiency.

3. Outcomes and Benefits

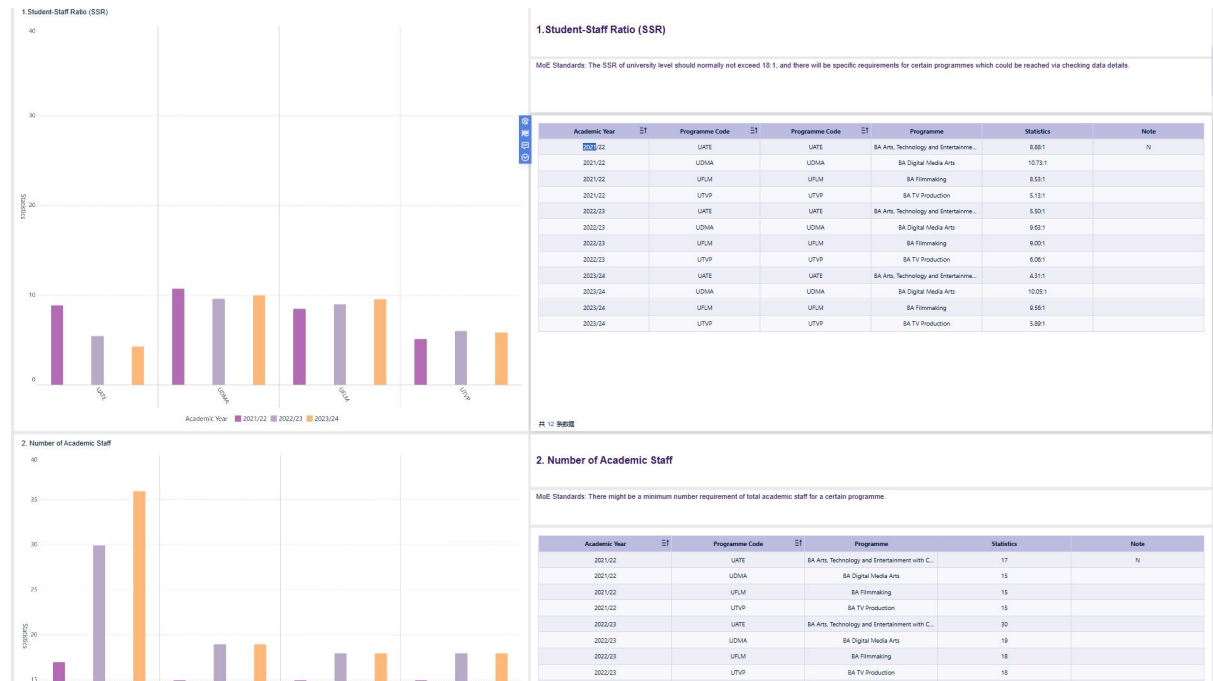


Figure 1. EQA Undergraduate Program Teaching Data Dashboard

- 1. Enhanced Assessment Efficiency:** The platform enabled "one-click aggregation and automated benchmarking" of data, reducing the time required for cross-departmental data consolidation from several weeks to minutes, with an error rate reduced to zero. This effectively supports program quality assessment and Ministry of Education reviews.
- 2. Support for Program Development:** Programs can quickly identify shortcomings through the platform and formulate targeted improvement measures. Management can use data dashboards to accurately identify strengths and weaknesses, providing a basis for

resource allocation.

3. **Improved Service Experience:** Program leaders can query data in real-time, eliminating the need for repeated communication.
4. **Assistance with Project Applications:** When applying for teaching awards or excellence projects, the EQA department can use the platform to select suitable candidates or undergraduate programs and send targeted application invitations.

4. Replicability and Promotion Value

The data management model of "standards first, interconnectivity and sharing" established in this case is applicable to the educational quality assurance work of various institutions, particularly those with numerous programs and dispersed data.

Its data integration approach can be adapted to various educational quality assessment scenarios, and its visualization model can be extended to related management domains, helping to achieve data-driven quality improvement.

5. Next Steps

Optimize User Experience: Refine permission management, add data export functionality, and enhance practicality.