



OLUMS

Intelligent Management
and Tracking Systems

Digitising Teaching-Practice Assessment Through Structured Competency Tracking on AWS

A large South African public university needed to replace fragmented, paper-based teaching-practice assessments with a consistent, centralised and auditable digital process. Managing assessments across multiple education programmes and geographically dispersed worksites limited institutional visibility, increased manual administration and made it difficult to consolidate marks, classroom observations and supporting evidence into complete student records.

OLUMS purpose-built an AWS-hosted teaching-practice workflow that captures weighted numeric marks, rubric-based classroom observations, qualitative feedback and supporting documentation within a unified platform. The system automatically applies prescribed weightings, calculates consolidated results and monitors assessment completion, giving academic and administrative staff clearer oversight of student progress, outstanding requirements and demonstrated teaching competence.

Challenge

- Fragmented paper-based teaching-practice assessments
- Limited oversight of in-person assessment visits
- Complex consolidation of scored and observational evidence

Solution

- Purpose-built digital education assessment workflow
- Weighted scoring, rubric-based observations and evidence capture
- Automated consolidation and assessment-completion monitoring

Results

- Centralised, consistent teaching-practice assessment records
- Improved visibility, traceability and institutional oversight
- Faster consolidation and earlier identification of incomplete assessments



The Customer

The Customer is a large South African University of Technology offering teacher-education qualifications across multiple teaching phases and subject specialisations.

These programmes require students to complete structured teaching practice in school and community-based environments while demonstrating practical classroom competence through supervised, in-person assessments. Students are evaluated using weighted numeric scores, rubric-based observations, qualitative feedback and supporting evidence.



About OLUMS

Online University Management Systems (OLUMS) is an education technology company specialising in digital platforms for higher education and skills development. Founded in 2019, OLUMS designs systems that support academic operations, industry engagement, and regulatory compliance.

As an AWS Partner, OLUMS builds and operates its platforms on Amazon Web Services to meet the scalability, security, and reliability requirements of public sector and higher education institutions.

The Challenge: Replacing Fragmented Assessment with Institutional Oversight

The university managed teaching-practice assessments across multiple education programmes using paper logbooks, spreadsheets, email and manually compiled records. Large numbers of students completed practical teaching experience across geographically dispersed schools and community-based worksites. Each student required an in-person assessment by a university-appointed WIL coordinator, supported by evidence of lesson planning, classroom delivery, professional conduct and teaching competence.

This fragmented process made it difficult to connect numeric marks, classroom observations, qualitative comments and supporting evidence to a complete student record. Information had to be collected, checked and consolidated manually, increasing the administrative burden and allowing missing documentation or incomplete assessment components to remain undetected until late in the academic process.

Paper records also provided limited visibility into assessment progress and completion. Given the volume and distribution of students, the university had no independent digital mechanism for verifying that every required assessment occurred in person at the approved worksite. Digitisation generated significant resistance because it introduced greater traceability, standardisation and accountability. The institution therefore needed a solution capable of supporting both formally scored components and the observational evidence required to evaluate practical teaching competence.

The Solution: A Purpose-Built Digital Teaching-Practice Assessment Workflow

OLUMS developed a purpose-built education assessment workflow hosted on Amazon Web Services (AWS). Rather than functioning only as a marks-capture system, it combines quantitative scoring with the qualitative and observational dimensions required in teacher education.

University-appointed supervisors capture numeric marks against configured components, while OLUMS applies the prescribed weightings and calculates consolidated results. Configurable rubrics support structured observations covering lesson and class planning, subject knowledge, lesson delivery, learner engagement, classroom management and professional conduct. Supervisors can record narrative feedback and attach evidence, ensuring that each calculated result remains connected to the underlying demonstration of practical competence.

Role-based workflows provide controlled access for students, supervisors, lecturers, moderators and administrators. The platform monitors assessment activities, supporting evidence and completion requirements, while worksite approval functionality associates teaching practice with recognised environments. Centralised dashboards provide visibility into completed, outstanding and incomplete assessments.

Results: Consistent Assessment, Improved Traceability and Earlier Intervention

The OLUMS workflow established a centralised and consistent approach to teaching-practice assessment across multiple education programmes. Numeric marks, institutional weightings, observational rubrics, narrative feedback and supporting evidence can be maintained within a unified student record instead of being distributed across paper forms, emails and spreadsheets.

Automated weighting and consolidation reduce the effort required to calculate and reconcile results. Academic and administrative users gain clearer visibility into each student's assessment status, including completed components and outstanding requirements. This supports earlier identification of missing assessments or evidence and enables intervention before these gaps affect programme completion.

The platform also strengthens institutional governance by preserving an audit trail of assessment activity, assessor input and submitted evidence. Standardised digital instruments promote greater consistency in evaluating practical teaching competence, while role-based access supports appropriate participation by each stakeholder group.

Most importantly, OLUMS enables the university to evaluate teaching practice as more than a final numeric mark. System-calculated results remain linked to the classroom observations, professional judgments and evidence on which they are based, creating a more complete and defensible record of competence. The proposed QR and location-verification enhancement provides a further pathway to validating in-person visits, identifying anomalies and improving management.

From Classroom Observation to Verified Teaching Competence

To support teacher-education qualifications, OLUMS provides a unified platform that structures the complete teaching-practice assessment journey across multiple teaching phases and subject specialisations.

The platform integrates weighted numeric assessment, rubric-based classroom observation, qualitative feedback, supporting evidence and academic oversight within a single system. Configurable assessment instruments cover lesson planning, subject knowledge, classroom delivery, learner engagement, classroom management and professional conduct, enabling institutions to measure both academic performance and demonstrated teaching competence.

Built on AWS, the solution provides secure, role-based access for students, university supervisors, lecturers, moderators and administrators. Automated weighting and score consolidation eliminate fragmented paper trails and manual reconciliation, while centralised workflows provide real-time visibility into completed assessments, outstanding requirements and supporting evidence.

By connecting calculated results directly to observations and evidence, OLUMS strengthens assessment consistency, improves institutional oversight and creates a more complete, traceable and defensible record of each student's readiness to teach.



Strengthening Teaching-Practice Oversight Across Distributed Worksites

Teaching-practice assessments occur across geographically dispersed schools and community-based learning environments, making consistent observation, evidence management and assessment tracking difficult through paper logbooks, spreadsheets and email-based processes.

OLUMS enables the structured digital capture of weighted marks, rubric-based classroom observations, qualitative feedback and supporting evidence within configurable education assessment workflows. University supervisors complete guided assessments covering lesson planning, subject knowledge, classroom delivery, learner engagement, classroom management and professional conduct, creating consistent and auditable records of demonstrated teaching competence.

Academic departments retain real-time visibility into assessment progress, consolidated scores, outstanding requirements and supporting evidence across distributed teaching-practice sites. Automated weighting and consolidation reduce manual reconciliation, while the AWS-based platform provides secure, scalable and reliable assessment management across multiple education programmes.



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Beyond Marks: Demonstrating Practical Teaching Competence

For teacher-education qualifications, completion extends beyond attending teaching practice to the structured demonstration of competence in a real classroom environment. Education departments must demonstrate not only that students completed the required practical exposure, but that lesson planning, classroom delivery, learner engagement, classroom management and professional conduct were consistently observed, assessed and supported by appropriate evidence.

Previously, this process relied heavily on paper logbooks, fragmented assessment records and retrospective reconciliation. This made it difficult to combine numeric marks with qualitative classroom observations or to maintain consistent oversight across geographically dispersed teaching-practice sites. Academic staff also had limited visibility into assessment progress, outstanding requirements and the evidence supporting each student's final result.

OLUMS addressed this through a purpose-built teaching-practice assessment framework that connects weighted numeric marks, observational rubrics, qualitative feedback and supporting evidence within a unified digital record. University supervisors complete guided, in-person assessments, while the system applies prescribed weightings and automatically calculates consolidated scores. Students, lecturers, moderators and administrators participate through controlled workflows, creating a consistent, traceable and auditable record of each student's demonstrated teaching competence.

Standardising Teaching-Practice Assessment Across Diverse Learning Environments

Education students complete teaching practice across diverse school and community-based learning environments, where classroom contexts, learner needs and assessment conditions can vary significantly. This created challenges in ensuring that students were assessed consistently, regardless of teaching phase, subject specialisation or worksite location.

The department previously relied on paper logbooks and assessment records that varied in quality, structure and level of detail. Academic staff had limited visibility into whether students had been consistently assessed across essential areas such as lesson planning, subject knowledge, classroom delivery, learner engagement, classroom management and professional conduct.

OLUMS introduced a structured teaching-practice assessment framework that standardised how numeric marks, observational rubrics, qualitative feedback and supporting evidence were captured across education programmes. University supervisors complete guided assessment workflows, while OLUMS applies prescribed weightings and automatically consolidates results into a complete, traceable record of each student's demonstrated teaching

OLUMS brings weighted scoring, structured classroom observation, qualitative feedback and supporting evidence into one auditable workflow—giving institutions a clearer, more defensible view of each student's demonstrated teaching competence.

Integrated Teaching-Practice Assessment