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Diagnosing and Improving Alignment between Learning Outputs and Job Tasks in Academic Master's Public Administration Programs

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Abstract: This study examines how well learning outputs of academic Master's students in Public Administration align with frontline job tasks and how this alignment can be strengthened through targeted teaching reform. Using a qualitative explanatory multiple-case design at one Chinese university, we combined semi-structured interviews with 24 early-career alumni and anonymised audits of their work artifacts to construct a "learning output × job task" alignment matrix. A four-dimension rubric—independence, timeliness, standardisation, and reusability—was applied to rate each cell as strong, basic, or weak. Overall alignment was about 0.64, with a clear pattern of strong alignment in document writing and policy communication but weaker alignment in mid-level capabilities such as project management, data handling, and process/ledger work. In response, we introduced a low-cost reform package centred on "minimum viable real tasks" (MVRT), cross-course use of the four-dimension rubric, and six shared backbone tools (indicator/process dictionary, document-type checklist, data lineage sheet, wording consistency checklist, versioning rules, and ledger templates). Before–after comparisons based on comparable assignments showed substantial gains in task timeliness, one-time pass rates for meeting minutes and action lists, on-time project completion, production time for briefs, and success in exporting usable ledgers within 10 minutes. The findings suggest that aligning assignments and assessment with an authentic "text–project–data–process" task chain can improve workplace readiness, coordination stability, and product reusability without noticeably increasing workload, offering a replicable pathway for task-based, evidence-rich training of Public Administration postgraduates.

Keywords: Academic Master's in Public Administration; Job-Learning Alignment; Constructive Alignment; Minimum Viable Real Task; Process Evidence.

1. Introduction

Graduate education in China is shifting from "scale expansion" to "quality enhancement," with evaluation moving from "what students have learned" to "what they can do, and to what verifiable standard." In Public Administration, these standards are embodied in a frontline task chain linking text, project, data, and process: staff must produce time-sensitive documents and policy narratives, advance project progress, aggregate and visualise data, and leave auditable traces through ledgers and workflows so that "exported files can directly withstand audit"[1][2]. Constructive alignment and outcomes-based education therefore advocate using workplace deliverables to reverse-design course aims, learning activities, and assessment criteria, so that learning evidence is transferable and reusable in real or quasi-real contexts[3][4][5].

In practice, current training is only partially aligned with this task chain. A long-standing "final-product orientation" marginalises process evidence such as data lineage, version history, sign-off records, and consistency checks, while the absence of shared indicator/process dictionaries and template libraries across courses fosters a structural imbalance: students are relatively strong in text production but weak in mid-level project and data work. The Job Demands–Resources model (JD-R) indicates that when job demands rise without corresponding resources and feedback, early-career staff are prone to burnout and adaptation difficulties[6][7]. Experiential and workplace learning studies further show that transferable competencies emerge from repeated practice in "short-cycle, tightly constrained, high-trace" real tasks[8][9], and research on programmatic assessment and data literacy argues that robust judgements should draw on multiple, longitudinal sources of evidence rather than single assignments, to move from "assignment-level pass" to "job-level usability"[10][11].

Against this backdrop, this study examines academic Master's students in Public Administration at one university, using an explanatory multiple-case design that combines semi-structured interviews with recent graduates and an anonymised audit of their work artifacts. Focusing on high-frequency task units—writing and documentation, policy search and application, project advancement, data and charts, and ledgers and processes—it constructs a "learning output × job task" alignment matrix, maps alignment patterns along the "text–project–data–process" chain, and, drawing on constructive alignment and the JD-R model, analyses mechanisms behind strong and weak/misaligned areas. On this basis, it designs and pilots a teaching reform package built around minimum viable real tasks (MVRT), a four-dimension rubric (independence, timeliness, standardisation, reusability), and unified backbone tools (dictionary–templates–dashboard), to address three questions: what the alignment map looks like for these students; which misalignment mechanisms are amenable to instructional intervention; and whether the reform can measurably improve task timeliness, one-time pass rates, and on-time project completion without substantially increasing workload.

2. Methods

2.1. Design and Setting

This qualitative, explanatory multiple-case study took "real job tasks" as the basic unit of analysis and examined how these tasks migrate from coursework to frontline roles for academic Master's students in Public Administration. The setting was the academic Master's programme at G University. Following a "problem–evidence–analysis–intervention–feedback" loop, the study combined semi-structured interviews with anonymised audits of student and workplace artifacts to construct a "learning output × job task" alignment matrix and to inform subsequent course and assessment adjustments.

2.2. Participants and Sampling

Participants were academic Master's graduates in Public Administration from G University who had entered relevant positions within the past five years. Purposeful sampling, combined with snowball sampling, was used to cover major organisational types (government and quasi-government, public institutions, state-owned enterprises/platforms, subdistricts and communities, health institutions, and education/research organisations) and job categories (general secretarial work, project execution and coordination, statistics and information, finance and assets, party-building and HR).

Inclusion criteria were: (1) graduation within recent years and current engagement in substantive Public Administration tasks; (2) ability to describe typical deliverable standards and evaluation rules; and (3) provision of written informed consent for audio-recorded interviews, verbatim transcription, and anonymisation. Twenty-four participants (R01–R24) were included. The emergence of new themes diminished around the 13th–15th interview, suggesting data saturation.

2.3. Data Collection and Analysis

Data collection relied primarily on semi-structured in-depth interviews, supplemented by anonymised artifact audits. The interview guide covered document types, process norms, timelines, collaboration patterns and feedback mechanisms, and invited participants to retrospectively describe formats, rubrics and feedback for representative assignments, linking "course language" with "workplace language." Each interview (about 60–90 minutes) was audio-recorded with consent and transcribed with speaker labels, timestamps and task tags.

Artifact audits were conducted under non-disclosure constraints by comparing learning outputs with workplace products in terms of format, indicator definitions and process requirements. For each case, the team recorded whether student work could be used directly, required secondary editing, or was unusable, and the reasons.

Task-centred thematic analysis was conducted on de-identified transcripts. The research team first performed familiarisation reading and open coding, then developed a coding manual with operational definitions and example quotations on a subsample. Two researchers independently coded the full dataset and reconciled discrepancies, generating parent and child themes around task similarity, feedback intensity, resource availability, standardisation thresholds and collaboration complexity[12].

Using a unified rating standard, the four-dimension rubric—independence, timeliness, standardisation and reusability—was then applied to each cell of the "learning output × job task" matrix, classifying alignment as strong, basic or weak and producing both the full matrix and a stratified overview.

2.4. Quality Assurance and Ethics

Rigour was supported by an audit trail documenting key decisions on sampling, interview guide revisions, coding manual updates and rating standard adjustments, all with timestamps and versioning. During analysis, double coding and discrepancy reconciliation were used; during reporting, member checking with participants and peer debriefing with domain experts enhanced interpretive robustness and transferability.

The study was approved by the university's ethics committee (approval ID:20230904001). It adhered to principles of informed consent and voluntary withdrawal, used tiered access control and encrypted storage for all data, and reported only anonymised quotations and contextualised case descriptions.

3. Diagnostic Results: Alignment Map Between Learning Outputs and Job Tasks

3.1. Sample and Job Structure

Among the 24 participants, graduation years were mainly between 2019 and 2024, and job tenure ranged from 1 to 6 years. Overall, they were in a transition phase from probationary roles to independently handling core responsibilities. Organisational types included government and quasi-government agencies, public institutions, state-owned enterprises/platform companies, subdistricts and communities, health institutions, and education/research organisations. The main job categories were general secretarial work (11), project execution and coordination (4), statistics and information (4), finance and assets (3), and party-building and HR (2). This cross-tabulation by organisational type and job function provided the necessary heterogeneity to analyse alignment under different contextual conditions (Table 1).

Table 1. Basic characteristics and job distribution of participants

Indicator	Value/description
Sample size	24
Graduation years	Mainly 2019–2024
Job tenure	1–6 years
Organisational setting	Government/quasi-government, public institutions, SOEs/platforms, subdistricts/communities, health institutions, education/research
Main job categories	General secretarial (11), project execution/coordination (4), statistics/information (4), finance/assets (3), party-building/HR (2)

3.2. High-frequency Task Chain and Functions

Participants' daily work generally followed a similar task chain: compiling materials and information; searching policies and unifying "official wordings"; organising meetings and drafting minutes; advancing projects and managing timelines; aggregating data and producing charts; maintaining ledgers and archives; handling external liaison and service requests; and conducting follow-up and performance feedback.

The "text–policy–meeting" segment was the most frequent; the "project–data–process" segment occurred less often in some roles but became crucial for milestone management, performance evaluation, and inter-department coordination. Each segment served a distinct function in approval, supervision, assessment, and audit (Table 2), together forming a coupled requirement for text, project, data, and process competencies in frontline Public Administration roles.

Table 2. Typical tasks and functions in frontline Public Administration positions

Task type	Main function	Typical outputs
Material compilation and information synthesis	Produce documents that can directly enter approval/supervision workflows	Situation reports, talking points, briefs
Policy search and application	Ensure consistency and compliance of "official wordings"	Policy comparison sheets, translation of legal provisions into operational language
Meeting organisation and minutes	Translate decisions into actionable items	Three-part minutes, action lists
Project execution and progress management	Align plans with milestones and timelines	Gantt charts, weekly progress, issue-closure lists
Data aggregation and charting	Provide consistent indicators for reporting and communication	Indicator ledgers, trend charts, comparison charts
Ledger management and archiving	Ensure "exportable and auditable" documentation	Ledger templates, numbering and timestamps
External liaison and case handling	Maintain consistent messaging and one-time notification	Handling forms, reply letters
Supervision and performance feedback	Close loops and reduce rework/returns	Supervision slips, completion reports, screenshot bundles

3.3. Overall Alignment and the "Strong Text, Weak Mid-Layer" Pattern

Using the unified rating standard, the study compared seven types of learning outputs—document writing and summarising, policy search and legal application, data processing and visualisation, project and time management, communication and meeting minutes, process standardisation and ledgers, and evidence-based reasoning and evaluation thinking—with eight categories of high-frequency job tasks to construct an alignment matrix. Overall alignment was about 0.64, indicating moderately high alignment.

The alignment map showed a pronounced "strong text, weak mid-layer" pattern. In most positions, document writing and summarising, policy search and translation, and meeting communication and minutes were rated as strongly aligned. Students could typically produce well-structured documents with traceable citations and clear "conclusion–evidence–action" logic within the allotted time, and could meet basic requirements such as addressees, attachments, and explanatory notes, making this the current area of strength.

In contrast, mid-layer capabilities—project advancement, data aggregation and charting, ledger and process management—were often rated as basic or weak alignment. Common problems included unstable control of timelines and milestones, inconsistent indicator definitions and "wordings," ledgers that were fillable but not truly usable, and meeting minutes that failed to specify responsibility chains or verification evidence.

Across job categories, alignment was highest in general secretarial and policy-focused positions. Roles in service windows, enforcement, and party-building/HR were more constrained by the granularity of process tracing and ledger requirements. Project execution and statistics/information positions had clear weaknesses in schedule control and data lineage, while finance and assets roles—given their higher demands for compliance and closed evidence chains—showed lower overall alignment. In short, academic Master's students in Public Administration had a cross-organisational advantage on the "text and policy" side, but systematic gaps in the "project–data–process" mid-layer, especially in positions with strict tracing and compliance requirements.

4. Teaching Reform: MVRT + Four-Dimension Rubric + Dictionary–Templates–Dashboard

4.1. Goals and Overall Rationale

To address the "strong text, weak mid-layer" pattern, the reform aimed to shorten the workplace adaptation period, improve job readiness at entry, and reduce rework. The focus was not simply "adding more assignments," but reshaping the production mechanism of learning outputs through (1) task-context isomorphism, (2) explicit scoring for evidence chains, and (3) unified backbone tools. The goal was for students to develop stable, transferable performance while still in school by operating within task chains that closely resemble actual workplace chains.

To this end, the program adopted "minimum viable real tasks" (MVRT) as the basic teaching unit. Each major assignment was designed to mirror a common workplace module, such as "thematic briefing + wording note," "post-meeting minutes + action list + archiving index," or "periodic brief + three core charts + ledger export."

4.2. Reform Components

At the assignment level, workplace-isomorphic MVRT replaced "large, diffuse" term papers, expanding the requirement from "able to write" to "able to complete on time, to standard, and with traceability." Examples include:

(1) Making "minutes + action list" the required pair for meeting-related tasks, with a fixed deadline for submitting three-part minutes that clearly specify responsibility chains and verification evidence;

(2) Requiring "three standard charts" (trend, comparison, composition) with annotated wordings as mandatory deliverables in data-related assignments, together with a brief data lineage sheet, to train consistency between charts, indicators, wordings, and interpretations;

(3) Embedding "10-minute ledger export" in completion criteria for project and statistics tasks, using predefined fields and naming rules so that students must be able to export ledgers that can be directly used in reporting or spot checks within a limited time.

At the assessment level, a unified rubric was built around four dimensions—independence, timeliness, standardisation, and reusability—and applied across courses and assignments. Process evidence was given hard weight in grading: missing data lineage, wording checklists, or version logs directly pulled down scores for standardisation and reusability, even when the final document looked polished.

At the tool level, the program built and iteratively refined a "six-piece" backbone toolkit: (1) indicator/process dictionary; (2) document-type requirements checklist; (3) data lineage sheet; (4) wording consistency checklist; (5) versioning and traceability rules; and (6) ledger field templates. These were shared across multiple courses to reduce "indicator drift" (the same indicator being defined in multiple ways) and to turn tacit norms into visible, reusable instructional resources.

4.3. Implementation Pathway

The implementation followed a "small-scale pilot, then gradual expansion" approach. In the first round, three courses—Policy Analysis, Research Methods, and Governance Practice—were selected as pilots. All three simultaneously adopted MVRT, the four-dimension rubric, and the six-piece toolkit, and jointly trained students along the same "text–project–data–process" task chain, with each course responsible for different segments.

The reform was then extended to additional courses and practice components. A "same topic, different evidence" joint assignment was designed, in which different courses respectively took charge of document and wording modules, project management modules, and data/ledger modules. Unified rubrics and joint marking were used for comprehensive evaluation.

In parallel, a simplified course quality dashboard was set up, tracking indicators such as on-time completion, rework rates, one-time pass rates, consistency of indicator wordings across charts, and success rates for 10-minute ledger export as part of routine monitoring.

5. Reform Outcomes: Quantitative Indicators and Illustrative Cases

5.1. Indicators and Data Sources

To capture changes in timeliness, standardisation, and reusability, the study tracked: (1) average completion time for the same type of document; (2) one-time pass rate for minutes and action lists submitted within 24 hours after meetings; (3) on-time completion rate for group projects; (4) average production time for annual or periodic briefs; and (5) the proportion of students able to export usable ledgers within 10 minutes. Data came from classroom records and assignment archives across two rounds of teaching (pre- and post-reform) with comparable assignment prompts.

5.2. Before–after Comparison of Key Indicators

After the introduction of MVRT, the four-dimension rubric, and the six-piece toolkit, all key process and outcome indicators improved in the same direction and by substantial magnitudes (Table 3). With assessment criteria held constant, timeliness in text-related tasks improved markedly, and mid-layer tasks (project management, data, and ledgers) became more stable and "export-ready." This suggests that the combined reform—task structuring, scoring for evidence chains, and unified tools—generated genuine added value.

Table 3. Comparison of key indicators before and after teaching reform

Indicator	Pre-reform (traditional term assignments)	Post-reform (MVRT + four-dimension rubric)	Notes
Average completion time for same-topic documents (hours)	~8.0	~3.5	Policy Analysis, two rounds of thematic assignments
One-time pass rate for minutes + action lists within 24 hours	~40%	~100%	Governance Practice, meeting tasks
On-time project completion rate	~52%	~83%	Group projects, milestone statistics
Average production time for annual/periodic briefs (days)	~2.0	~0.9	Research Methods, data briefs
Success rate for exporting usable ledgers within 10 minutes	~35%	~82%	Standardised ledger export test

5.3. Illustrative Task-chain Cases

In the meeting task chain, before the reform, students could usually produce formally acceptable minutes within 1–2 days, but action items were vague, and responsibility chains and verification methods were unclear, leading to repeated revisions. After "minutes + action list" was established as the MVRT and a 24-hour submission deadline was imposed, students had to provide three-part minutes and structured action lists, which were graded using the four-dimension rubric. Most students could complete these within half a day and pass in a single round, demonstrating performance that could be directly transplanted into real departmental meetings.

In the project and data task chain, pre-reform group projects often showed "plans without pacing," lengthy briefs without clear key points, and last-minute "patching" of ledgers. With the introduction of the combined package—Gantt charts, action lists, two-line weekly updates, three standard charts, and 10-minute ledger export—students had to update project rhythm and curate data before each pre-set

node. Briefs were compressed into a "charts + bullet points" structure, ledger fields were maintained in a unified way, project delays and "firefighting overtime" decreased noticeably, and most groups were able to export ledgers usable for reporting or spot checks within the time limit. This reflects a shift from "finishing a single assignment" to "completing an integrated task chain."

6. Discussion and Conclusion

Using a "text–project–data–process" task chain and a four-dimension rubric, this study mapped the alignment between learning outputs and job tasks for academic Master's students in Public Administration. It identified a relatively stable "strong text, weak mid-layer" pattern: document writing, summarising, policy search and translation, and meeting minutes plus action lists aligned well across organisational and positional settings, while mid-layer competencies—project management, data handling and visualisation, and ledger/process tracing—were often only basic or weakly aligned. These gaps were consistent with underlying mechanisms such as "final-product bias over process," "concept-heavy but tool- and wording-light coursework," and "cross-course drift in indicator definitions and templates"[4][5].

After the introduction of MVRT, the four-dimension rubric, and the six-piece toolkit, all tracked indicators—including document completion time, one-time pass rates for minutes and action lists, on-time project completion, brief production time, and 10-minute ledger export success—improved markedly. This suggests that restructuring tasks, explicitly scoring evidence chains, and unifying backbone tools can, without substantial extra workload, simultaneously enhance timeliness in text-related work and stability and "export readiness" in mid-layer tasks.

Compared with existing work, this study provides contextualised evidence for constructive alignment and outcomes-based education in the field of Public Administration, strengthening the case for aligning teaching with real tasks[3][4]. It also adds to the literature on graduate employability and hybrid skills by demonstrating a field-specific pattern of "strong text, weak mid-layer" and by operationalising programmatic assessment and data literacy into a practical "four-dimension rubric + six-piece toolkit"[13][14][15].

Several limitations should be noted. First, the sample comes from a single institution and program, and participants are mostly in early-career stages, limiting external validity. Second, alignment is measured using a rubric and weights developed by the research team; despite double marking and member checking, inter-rater reliability and weight sensitivity require more systematic testing[16][17]. Third, the evaluation of the reform relies on descriptive before–after comparisons; quasi-experimental designs have not yet been used to isolate net effects, nor have cost–effectiveness or cost–benefit analyses been conducted. Future work could use multi-institution, multi-platform stratified sampling to build more representative alignment maps; strengthen measurement through structured training and reliability checks; and employ staggered introduction and difference-in-differences designs while recording implementation costs, to support scaling and institutionalisation.

Overall, this study proposes and preliminarily validates a teaching reform pathway for academic Master's programs in Public Administration built around "MVRT + four-dimension rubric + dictionary–templates–dashboard." By reorganising fragmented "writing practice" into an integrated "text–project–data–process" task-chain training, the reform appears to improve job readiness, coordination stability, and reusability of outputs without noticeably increasing workload. It offers a replicable, context-sensitive blueprint for advancing task-based, evidence-rich postgraduate education in Public Administration.

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