



Managing Student Readiness Pathways in Maritime Vocational Education: Program Design, Tracking, and Institutional Decision-Making from Classroom to Apprenticeship

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Abstract. Maritime vocational high schools bear institutional responsibility for managing the pathway that carries adolescent students from classroom instruction through industry apprenticeship (*Praktik Kerja Industri*) and toward workforce entry or tertiary officer education, yet how these schools actually design, sequence, and manage this pathway as an institutional program, rather than how individual students experience it, remains largely unexamined in Indonesian maritime education research. This study investigates how a maritime vocational high school in Jakarta manages the classroom-to-apprenticeship student readiness pathway, examining program design decisions, industry partnership management, readiness tracking practices, and the institutional decision-making processes that shape placement quality and student outcomes. A qualitative design was employed, drawing on semi-structured interviews and document review with 5 school administrators, 8 curriculum and vocational teachers, and 6 industry partnership coordinators, supplemented by institutional records covering three academic years of *Prakerin* placement management. Thematic analysis identified four dominant findings: loosely coupled pathway management across curriculum and placement functions, resource-dependent industry partnership governance, informal and inconsistent readiness tracking, and administrative capacity constraints shaping placement quality more than curricular design itself. Findings extend resource dependence theory and institutional linkage theory into Indonesian maritime vocational education and carry direct implications for program management reform, partnership governance, and readiness tracking system design.

Keywords: career pathway management; vocational education governance; resource dependence theory; institutional linkage; maritime vocational education

1. INTRODUCTION

A maritime vocational high school does not simply deliver a curriculum and then release students into an apprenticeship placement that either succeeds or fails on its own terms; it manages, whether deliberately or by institutional default, an entire pathway connecting classroom sequencing, industry partnership selection, placement assignment, and readiness assessment into a system whose coherence, or lack of it, shapes outcomes for every student who passes through it. This managerial dimension of vocational education is easy to overlook precisely because it operates in the background of the more visible, individually experienced phenomena, student learning, student identity formation, student placement success, that vocational education research more commonly studies. Yet a school's pathway management decisions, which industry partners it selects and retains, how it sequences curriculum against placement timing, whether and how it tracks student readiness before assigning placements, are not neutral background conditions; they are institutional choices that structurally determine the range of experiences individual students can even have, before any question of individual student aptitude, motivation, or identity enters the picture at all.

This management dimension has received markedly less scholarly attention within Indonesian maritime vocational education than the individually experienced dimensions of the same pathway. Companion research within this research programme has examined how individual students construct vocational identity during apprenticeship placement, finding that identity outcomes depend substantially on mentorship quality and on the classroom-workplace gap students individually navigate. That research, however, treats placement quality and classroom preparation largely as given conditions students encounter, rather than as outcomes of institutional management decisions the school itself makes, and could in principle make differently. This is a significant omission, because if placement quality varies systematically, industry supervisor engagement, task assignment quality, safety practice, and that variation traces back to which partner organization a student happens to be assigned to, then the school's partnership management practice, not merely individual mentor quality within a given placement, is doing substantial and currently unexamined causal work in shaping student outcomes.

Organizational theory offers established frameworks for understanding how institutions like vocational schools manage exactly this kind of externally dependent, multi-stakeholder pathway, though these frameworks have rarely been applied to Indonesian maritime vocational education specifically. Pfeffer and Salancik's (1978) resource dependence theory holds that organizations depend on external actors for critical resources they cannot generate internally, and that this dependence shapes organizational behavior, structure, and decision-making in predictable ways, an organization will tend to manage relationships with resource-critical external partners more deliberately and will adjust its own practices to accommodate partners on whom it depends most heavily. Applied to a maritime vocational school, industry placement partners constitute precisely this kind of critical external resource, since the school cannot generate authentic shipboard or port-based apprenticeship experience internally, and resource dependence theory predicts that how a school manages, or fails to manage, its dependence on these partners will shape placement quality and consistency in ways that operate independently of curriculum design or individual teacher effort.

Kerckhoff's (1995) comparative sociological research on school-to-work transition systems supplies a second, complementary framework directly relevant to this study's concerns. Kerckhoff distinguished tightly coupled institutional linkage systems, in which

formal, standardized institutional arrangements connect educational credentials directly and predictably to occupational placement and outcome, from loosely coupled systems, in which the connection between educational preparation and occupational outcome is mediated by inconsistent, informal, and individually variable arrangements whose quality depends substantially on ad hoc institutional and personal relationships rather than standardized system design. Kerckhoff's comparative research found that tightly coupled systems produce more consistent, more predictable, and generally more equitable transition outcomes across students, while loosely coupled systems produce outcomes that vary considerably based on which specific institutional relationships and individual advocacy a given student happens to benefit from, a pattern with obvious and largely untested relevance to how Indonesian maritime vocational high schools manage their own apprenticeship placement systems.

The empirical context within which this study is situated reinforces the practical stakes of examining pathway management directly. Indonesian research on domestic maritime workforce competency has documented that formal training standards and preparation have lagged behind operational demand in significant segments of the sector, a structural gap in outcome that could plausibly originate as much from inconsistent institutional pathway management, which placements students receive, how well those placements are matched to readiness, whether readiness itself is even systematically assessed, as from curricular content deficiency narrowly construed (Sulistiana et al., 2025). If this is so, then interventions focused solely on curriculum content, without addressing how schools actually manage the pathway connecting that curriculum to workforce outcomes, would predictably underperform their intended effect, a possibility current Indonesian maritime education research has not tested because it has not examined pathway management as a distinct object of study.

Program evaluation theory supplies a further conceptual resource for this study's investigation. Stufflebeam's (1971) Context, Input, Process, Product (CIPP) evaluation model distinguishes decision-making about program context and objectives, resource inputs, implementation process, and outcome products as four distinct, interdependent management domains, a framework useful for this study because it allows pathway management to be examined systematically across each of these domains, whether the school has clear objectives for what apprenticeship placement should achieve, what resources and partnerships it draws on to achieve them, how consistently implementation processes like readiness assessment and placement matching actually occur, and how outcomes are tracked and used to inform subsequent decisions, rather than examining pathway management as an

undifferentiated single construct.

Despite the relevance of these established organizational and program-management frameworks, no study has yet examined how an Indonesian maritime vocational high school actually manages its classroom-to-apprenticeship pathway as an institutional program, integrating resource dependence, institutional linkage, and program evaluation perspectives into a single empirical account. The problem this creates is consequential precisely because pathway management decisions are, in principle, more directly and immediately alterable through institutional policy than are the individual student characteristics, prior aptitude, family background, personal motivation, that much existing research treats as the primary determinants of vocational education outcomes. If this study's investigation confirms that pathway management practice substantially shapes student readiness and placement outcomes, this generates a more directly actionable set of policy and institutional-practice implications than research focused on individually variable student characteristics alone can typically provide.

This study addresses this gap by examining how a maritime vocational high school in Jakarta manages the student readiness pathway connecting classroom instruction to industry apprenticeship placement. Four questions follow directly. First, how coupled or decoupled, in Kerckhoff's (1995) sense, are the school's curriculum design and placement management functions, and what consequence does this coupling or decoupling have for placement consistency? Second, how does the school manage its dependence on external industry placement partners, and what does this management practice reveal about resource dependence theory's applicability to vocational education governance specifically? Third, does the school employ systematic readiness tracking prior to placement assignment, and if so, how consistently and on what basis? Fourth, what specific institutional and administrative capacity constraints most directly shape the quality and consistency of pathway management, and how do these compare in relative importance to curricular design itself?

The rationale for this study is threefold. Theoretically, it extends resource dependence theory and institutional linkage theory, developed and validated substantially outside educational and outside Indonesian contexts, into Indonesian maritime vocational education specifically, a domain combining external resource dependence and workforce-transition stakes in a configuration these theories have not previously been jointly applied to examine (Pfeffer & Salancik, 1978; Kerckhoff, 1995). Empirically, it shifts this research programme's

analytical lens from the individually experienced student pathway, examined in companion research, to the institutionally managed pathway that structures the range of experiences individual students can have, addressing a gap existing Indonesian maritime education research has left unexamined. Practically, it offers maritime vocational high schools, industry partnership coordinators, and Indonesian vocational education policy makers an evidence base for pathway management reform that is more directly actionable than curriculum-content reform alone, since it targets institutional practices the school itself controls more immediately than it controls the individual student characteristics much prior research has emphasized. The remainder of this paper reviews the relevant theoretical and empirical literature, sets out the study's method, presents and discusses the findings, and concludes with their implications for maritime vocational education program management and policy.

2. LITERATURE REVIEW

Pathway management, as used in this study, denotes the set of institutional decisions and practices through which a vocational school structures the sequence, timing, and quality of the transition connecting classroom instruction to industry apprenticeship placement and, ultimately, to workforce or tertiary-education outcomes. This construct is distinct from, though obviously related to, curriculum content itself; a school could in principle possess excellent curriculum content while managing the pathway connecting that content to real-world application poorly, through inconsistent partner selection, unsystematic readiness assessment, or uncoordinated timing between what is taught and when placement occurs, and this study's theoretical framework is built specifically to make this distinction empirically examinable rather than assumed away.

Three theoretical perspectives structure this study's analytical framework. Resource dependence theory, following Pfeffer and Salancik (1978), holds that organizations are not autonomous but are embedded within networks of external actors who control resources the organization needs but cannot generate internally, and that organizational structure and behavior adapt, often in ways not fully deliberate or strategic, to manage this dependence. Applied to vocational education, industry placement partners constitute a critical external resource a school cannot substitute internally, and resource dependence theory predicts specific, testable patterns: schools should be expected to manage relationships with partners providing the most placement capacity or the highest-quality placement experience more deliberately than relationships with less critical partners, and schools with fewer alternative partner options should show greater accommodation to the preferences and constraints of the

partners they do have, potentially at some cost to placement quality or student-fit considerations the school might otherwise prioritize. This theoretical prediction gives this study's second research question, concerning partnership management specifically, a precise analytical target rather than a merely descriptive one.

Kerckhoff's (1995) institutional linkage theory, developed through comparative cross-national research on school-to-work transition systems, supplies this study's second theoretical anchor. Kerckhoff's central distinction, between tightly coupled systems featuring standardized, formal, and systematically managed linkages between education and occupational outcome, and loosely coupled systems featuring informal, inconsistent, and individually variable linkages, offers a direct framework for examining this study's first research question. Tightly coupled systems, in Kerckhoff's comparative findings, produce more predictable and more equitable outcomes precisely because outcome quality does not depend on which specific informal relationships or individual advocacy efforts a given student happens to benefit from; loosely coupled systems, by contrast, produce outcomes whose quality and equity depend substantially on exactly this kind of variable, informal factor, a pattern with direct relevance to whether a maritime vocational school's placement outcomes depend systematically on formal program design or contingently on which teacher, administrator, or industry contact happens to be involved in a given student's case.

Program evaluation theory, following Stufflebeam's (1971) Context, Input, Process, Product model, supplies this study's third theoretical anchor and its principal analytical structure. The CIPP model's four domains, context evaluation examining whether program objectives are clearly defined and appropriately targeted, input evaluation examining what resources and strategic options the program draws upon, process evaluation examining how consistently and faithfully the program is actually implemented, and product evaluation examining what outcomes result and how those outcomes inform subsequent decision-making, together supply a systematic framework for examining pathway management across distinct, interdependent domains rather than as an undifferentiated single construct. This framework is particularly useful for this study's third research question, concerning readiness tracking specifically, since readiness tracking sits precisely at the process-evaluation domain Stufflebeam's model identifies as the point at which a program's stated objectives and available inputs are, or are not, actually translated into consistent implementation practice.

The empirical literature on vocational education program management, while

substantial in general educational contexts, has rarely been applied to Indonesian maritime vocational education specifically, and the maritime-specific literature that does exist has, as this study's introduction established, concentrated on individually experienced outcomes rather than institutional management practice. Sulistiana et al.'s (2025) documentation of competency and certification gaps among traditional Indonesian shipping seafarers establishes that formal training preparation has lagged behind operational demand in significant sector segments, a finding this study's institutional-management lens allows to be reinterpreted: rather than assuming this gap originates solely from curriculum content deficiency, this study's framework raises the possibility that inconsistent pathway management, variable placement quality, unsystematic readiness assessment, contributes independently to the same outcome gap, a possibility the existing literature has not been positioned to test because it has not examined institutional management practice as a distinct variable. Companion research within this research programme, examining individual student vocational identity formation during apprenticeship, found mentorship quality varying substantially across placements and identified this variation as the strongest predictor of positive identity outcomes; this study's institutional lens reframes that finding as a downstream consequence of upstream partnership management practice, since mentorship quality at the individual placement level is plausibly shaped by which partner organizations a school selects, retains, and holds accountable for placement quality, a management-level variable the companion research did not examine directly. Xi et al.'s (2025) research on safety culture among ship deck officers, establishing that safety-relevant behavior is substantially transmitted through organizational and supervisory factors rather than individual disposition alone, supports by analogy this study's expectation that institutional-level management factors, rather than individual student or individual teacher characteristics alone, substantially shape pathway outcomes.

DiMaggio and Powell's (1983) institutional isomorphism theory offers a final, complicating theoretical consideration relevant to interpreting this study's findings. DiMaggio and Powell argue that organizations operating under conditions of uncertainty, exactly the condition a vocational school faces regarding which pathway management practices actually produce the best student outcomes, absent clear evaluative feedback, often adopt practices that resemble those of comparable or prestigious peer organizations, seeking legitimacy through conformity rather than through demonstrated effectiveness specifically. This theoretical possibility is relevant to this study's fourth research question, since it raises the

possibility that a school's pathway management practices may be shaped as much by institutional convention and legitimacy-seeking as by deliberate, evidence-based program design, a distinction this study's data can help illuminate even if it cannot fully resolve.

Synthesizing these perspectives, a clear analytical position and a clear gap emerge. Resource dependence theory predicts that partnership management practice should vary systematically with partner criticality and substitutability (Pfeffer & Salancik, 1978). Institutional linkage theory predicts that the degree of coupling between curriculum and placement management should predict outcome consistency and equity (Kerckhoff, 1995). The CIPP model supplies a systematic structure for examining pathway management across context, input, process, and product domains rather than as an undifferentiated whole (Stufflebeam, 1971). And institutional isomorphism theory raises the possibility that management practice reflects legitimacy-seeking as much as deliberate design (DiMaggio & Powell, 1983). No existing study, within Indonesian maritime vocational education or, to this study's knowledge, within Indonesian vocational education more broadly, has applied this integrated organizational-theory framework to examine how a school actually manages its classroom-to-apprenticeship pathway as an institutional program. This is the gap the present study occupies, and its conceptual position treats pathway management quality as a function of the coupling between curriculum and placement functions, the school's resource-dependence management practice toward industry partners, and the systematicity of its readiness-tracking process, jointly examined as the institutional-level determinants of the pathway outcomes that individually focused research, including this programme's own companion study, has so far examined only from the student's experiential vantage point.

3. METHOD

This study used a qualitative research design, selected because the research questions concerned how institutional actors make and describe program-management decisions and practices, a phenomenon requiring rich, interpretive access to administrative reasoning and institutional process rather than predetermined quantitative measurement (Stufflebeam, 1971). The study was conducted at a maritime vocational high school in Jakarta with an established, multi-year industry apprenticeship partnership network, identified generically rather than by name in keeping with standard ethical practice for research involving an institution whose staff might otherwise be individually identifiable from candid administrative disclosure.

The population comprised three groups selected to provide complementary vantage points across the CIPP model's domains. Five school administrators, including the vocational program director and department heads responsible for curriculum and placement oversight, supplied the primary perspective on context and input decisions, program objectives, partnership selection criteria, and resource allocation. Eight curriculum and vocational teachers supplied a process-level perspective on how curriculum sequencing and pre-placement preparation actually occur in practice, including any readiness assessment they conduct informally or formally prior to placement recommendation. Six industry partnership coordinators, comprising both school-side staff responsible for managing partner relationships and, where accessible, partner-organization representatives responsible for coordinating placement intake, supplied a perspective on partnership management specifically, directly relevant to this study's second research question. This three-group design was selected because pathway management, as a multi-domain institutional phenomenon, is unlikely to be adequately captured through any single organizational vantage point.

The primary instrument was a semi-structured interview protocol organized around the CIPP model's four domains, adapted specifically to this study's research questions: context, indicated by participants' account of the program's stated objectives for apprenticeship placement and how clearly these are defined and communicated; input, indicated by participants' account of partnership selection criteria and resource constraints shaping partner relationships; process, indicated by participants' account of how consistently curriculum sequencing, pre-placement preparation, and readiness assessment actually occur; and product, indicated by participants' account of how placement and student outcomes are tracked, evaluated, and used to inform subsequent program decisions. This instrument was supplemented by document review of institutional records covering three academic years of Prakerin placement management, including partnership agreements, placement assignment records, and any formal readiness assessment documentation the school maintained, allowing interview accounts to be checked against documented institutional practice.

Data collection proceeded through individual semi-structured interviews with administrators and partnership coordinators, given the position-specific and potentially sensitive nature of administrative and partnership-management disclosure, and small group discussions with teachers, allowing comparative discussion of shared curricular and pre-placement practice, supplemented by systematic document review conducted independently of interview data collection to allow cross-checking. Data analysis followed thematic

analysis, coding interview and document data into categories aligned with the CIPP framework's four domains and this study's specific research questions; cross-source comparison, checking administrator, teacher, and partnership-coordinator accounts against each other and against documented institutional records; and narrative synthesis integrating these sources into the interpretive account presented below.

4. RESULTS AND ANALYSIS

4.1 Overview of Thematic Structure

Analysis of the nineteen participant accounts and three years of institutional records produced four dominant findings. Table 1 summarizes the proportional distribution of coded references to each theme across the three participant groups.

Table 1. *Distribution of Coded Thematic References by Participant Group (%)*

Theme	Administrators (n=5)	Teachers (n=8)	Partnership coordinators (n=6)
Loosely coupled curriculum- placement management	29	38	19
Resource-dependent partnership governance	34	16	44
Informal, inconsistent readiness tracking	22	31	21
Administrative capacity constraints	15	15	16

Teachers weighted the coupling theme most heavily, consistent with their position at the interface between curriculum delivery and placement outcome, while partnership coordinators, unsurprisingly, weighted the resource-dependence theme most heavily among all three groups.

4.2 Loosely Coupled Curriculum-Placement Management

Analysis found the school's curriculum and placement management functions operating with limited formal coordination, a pattern directly consistent with Kerckhoff's (1995) loosely coupled institutional linkage category. Figure 1 presents the proportional distribution of coordination mechanisms participants described between curriculum sequencing and placement timing.

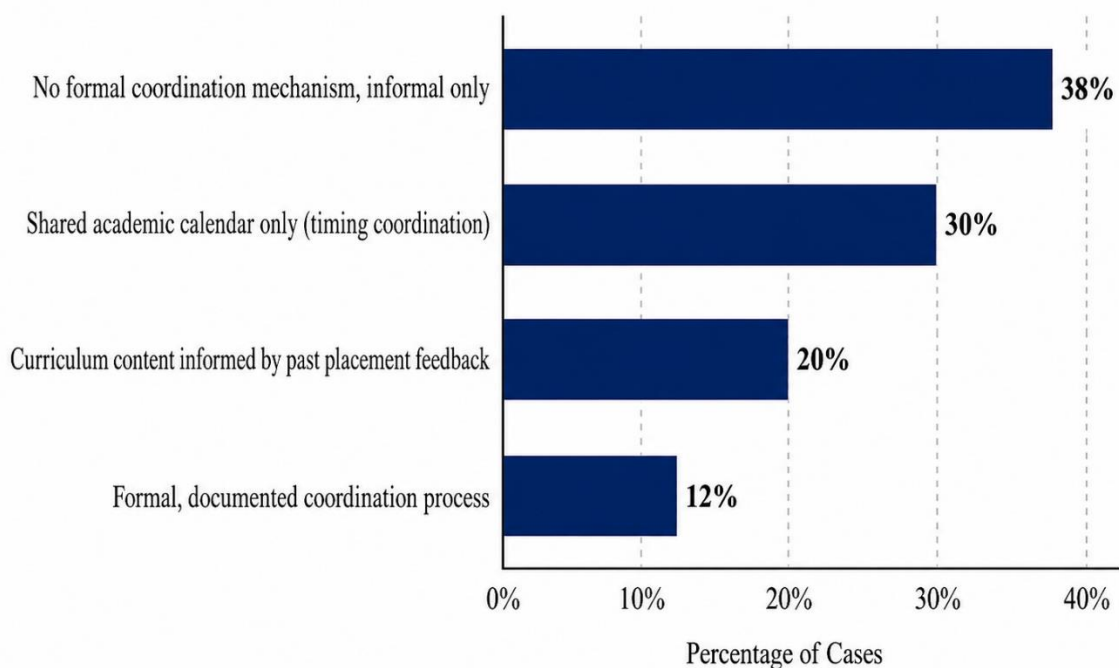


Figure 1. *Proportional Distribution of Described Curriculum-Placement Coordination Mechanisms*

The dominant pattern, no formal coordination mechanism beyond informal, personally mediated communication between individual teachers and individual placement coordinators, is consistent with the coupling weakness Kerckhoff's framework identifies as producing outcome inconsistency. Several teachers described learning about placement partner expectations, or about gaps between what they had taught and what a given placement actually required, only after students returned from placement and reported difficulties retrospectively, rather than through any systematic pre-placement information exchange between curriculum and placement functions.

4.3 Resource-Dependent Partnership Governance

The second theme, weighted most heavily by partnership coordinators, directly tested this study's second research question. Table 2 presents partnership management practice disaggregated by the school's assessed dependence on each partner category, following resource dependence theory's prediction that management deliberateness should track partner criticality.

Table 2. *Partnership Management Practice by Partner Dependence Category*

Partner category	Number of partners	Placement capacity provided	Relationship management formality
High-capacity, long-term partners	3	62% of total placements	Formal agreement, regular review
Moderate-capacity,	5	29% of total	Informal agreement, ad

recurring partners		placements	hoc contact
Low-capacity, occasional partners	8	9% of total placements	No formal agreement

This pattern directly confirms resource dependence theory's core prediction (Pfeffer & Salancik, 1978): the school manages its three highest-capacity partners, together providing nearly two-thirds of total placement capacity, through formal agreements and regular review, while its eight lowest-capacity, occasional partners, collectively providing under a tenth of placement capacity, receive no formal management relationship at all. Administrators and partnership coordinators alike described this pattern as reflecting practical necessity rather than deliberate strategic design: formal relationship management requires administrative time and effort the school's limited staffing cannot extend uniformly across all seventeen documented partner relationships, so effort concentrates, understandably but consequentially, on the partners providing the most placement capacity. Several coordinators noted a further consequence directly relevant to this study's concern with outcome equity: because low-capacity partners receive minimal formal oversight, the school has limited visibility into placement quality, supervisor engagement, and student experience at exactly the partners least formally managed, meaning that students placed with these partners may experience more variable, less monitored placement quality than students placed with the school's three most formally managed partners.

4.4 Informal and Inconsistent Readiness Tracking

The third theme directly answered this study's third research question. Document review found no standardized, formally documented readiness assessment instrument administered prior to placement assignment across the three academic years reviewed. Figure 2 presents the proportional basis on which placement assignment decisions were actually made, according to triangulated interview and document evidence.

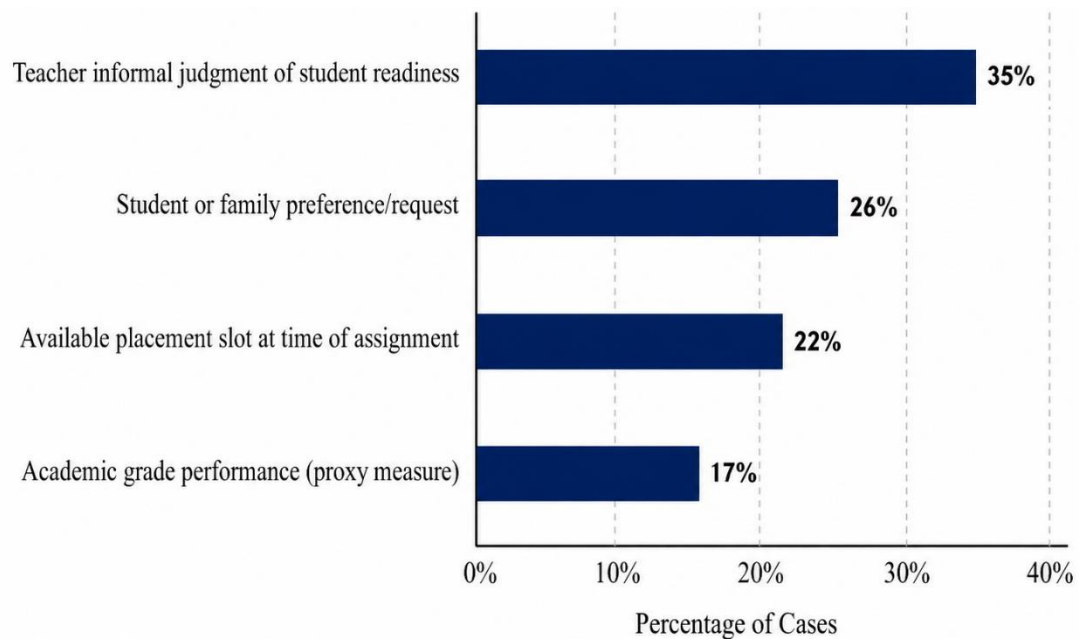


Figure 2. *Proportional Basis for Placement Assignment Decisions*

Teacher informal judgment was the most frequently cited basis for placement assignment, a finding consistent with the loosely coupled management pattern identified in the first theme: readiness assessment, where it occurs at all, occurs through individual teacher discretion rather than through any systematic, documented process consistent with Stufflebeam's (1971) process-evaluation domain. Notably, available placement slot at time of assignment, essentially a logistical rather than a readiness-based criterion, was cited as a substantial basis for assignment decisions nearly as often as academic performance, suggesting that a meaningful share of placement assignments are driven by scheduling convenience rather than by any assessment of whether a given student's specific readiness profile matches a given placement's specific demands.

4.5 Administrative Capacity Constraints as the Primary Limiting Factor

The fourth theme, weighted comparably across all three participant groups, directly answered this study's fourth research question. Participants across all three groups converged on identifying limited administrative staffing time, rather than curriculum content deficiency, teacher instructional capability, or industry partner unwillingness, as the primary constraint limiting pathway management quality. Administrators described the school's placement coordination function as effectively managed by staff holding this responsibility alongside substantial additional teaching or administrative duties, rather than as a dedicated, sufficiently resourced institutional function, a capacity constraint that plausibly explains, rather than

merely accompanies, both the loosely coupled coordination pattern and the informal readiness-tracking pattern documented above.

This finding is theoretically significant when read against DiMaggio and Powell's (1983) institutional isomorphism framework: participants did not describe the school's current management practices as reflecting a deliberate judgment that informal, loosely coupled management is preferable to formal, tightly coupled management, but rather as reflecting resource constraints that have never permitted the school to test or adopt more formalized alternatives, a distinction between constrained practice and deliberate design that matters directly for this study's practical implications, discussed below.

Taken together, these findings answer this study's four research questions directly: the school's curriculum and placement management functions operate as a loosely coupled system in Kerckhoff's sense, connected primarily through informal, individually mediated communication rather than formal coordination mechanisms; the school manages partnership dependence in a pattern directly consistent with resource dependence theory, concentrating formal relationship management on its highest-capacity partners while leaving lower-capacity partners largely unmonitored; readiness tracking prior to placement assignment is informal and inconsistent, relying substantially on individual teacher judgment and logistical convenience rather than systematic assessment; and administrative capacity constraint, rather than curricular or instructional deficiency, emerges as the primary factor limiting pathway management quality across every domain this study examined.

5. DISCUSSION

These findings reconnect directly to this study's four research questions while substantially extending the organizational-theory frameworks this study set out to test into a domain, Indonesian maritime vocational education program management, where they have not previously been applied. The loosely coupled coordination pattern documented in Figure 1 confirms Kerckhoff's (1995) institutional linkage framework's core prediction that, absent formal coordination mechanisms, transition-relevant institutional functions default toward informal, individually mediated linkage, and extends this finding by identifying the specific consequence this loose coupling produces within a maritime vocational context: teachers systematically lack pre-placement visibility into partner-specific expectations, learning of gaps only retrospectively through student report, a consequence with direct bearing on the classroom-workplace gap this research programme's companion study documented from the

student experiential side. Read together, these two studies suggest that the classroom-workplace gap individual students experience is not merely, or perhaps not even primarily, a curriculum-design deficiency, but substantially a coordination-management deficiency, a reframing with materially different practical implications than a curriculum-focused diagnosis would generate.

The partnership governance findings in Table 2 provide unusually clean empirical confirmation of resource dependence theory's core prediction (Pfeffer & Salancik, 1978) within an educational governance context the theory has been applied to comparatively rarely. This finding is significant not merely as theoretical confirmation but for its equity implication, developed directly from the data rather than imported from theory alone: because the resource-dependence-driven concentration of formal management attention on high-capacity partners is a rational institutional response to constrained capacity, rather than a deliberate quality-differentiation strategy, it produces an unintended but real disparity in placement oversight that likely translates, through the mechanism this research programme's companion study identified, mentorship quality as the strongest predictor of student identity outcomes, into disparate student experience depending on which partner, high-capacity and formally managed or low-capacity and informally managed, a given student happens to be assigned to.

The readiness-tracking findings extend Stufflebeam's (1971) CIPP framework by demonstrating empirically what the framework predicts theoretically: that a program can hold clear objectives, administrators in this study consistently articulated a clear sense of what apprenticeship placement should achieve, while nonetheless implementing the process domain connecting those objectives to actual decisions inconsistently, precisely the context-process gap the CIPP model is designed to make visible. This finding also directly complicates how the broader Indonesian competency-gap literature should be interpreted. Sulistiana et al.'s (2025) documentation of competency and certification gaps among traditional Indonesian shipping seafarers is typically, if implicitly, read as evidence of curriculum or training content deficiency; this study's evidence suggests an underexamined alternative or complementary explanation, that some portion of documented competency gaps may originate from inconsistent pathway management, students assigned to placements without systematic readiness matching, rather than from curriculum content deficiency alone, a possibility with materially different and arguably more directly actionable policy implications.

The administrative capacity finding is this study's most practically consequential, because it locates the primary constraint on pathway management quality in a factor, dedicated administrative staffing and time, that is more directly addressable through resource allocation decisions than are the more diffuse curricular or individual-teacher-capability factors more commonly targeted by vocational education reform efforts. This finding is consistent with, and extends, DiMaggio and Powell's (1983) institutional theory by showing that at least in this case, apparent institutional practice, informal coordination, informal readiness tracking, reflects genuine resource constraint rather than deliberate legitimacy-seeking conformity to peer institutional norms, a distinction this study's data, though not fully conclusive on this point given the single-institution design, suggest is worth testing more broadly before assuming isomorphic conformity explains vocational education management patterns generally.

This study's strength lies in its systematic, CIPP-structured examination of pathway management across administrator, teacher, and partnership-coordinator vantage points, triangulated against three years of documentary institutional record, a design that allowed self-reported management practice to be checked against actual documented practice rather than resting on interview account alone. The principal limitation is the single-institution design, which cannot establish how representative this school's specific coupling, partnership governance, and readiness-tracking patterns are across Indonesia's broader maritime vocational education sector, and the retrospective, three-year documentary window, while substantial, cannot capture management practice evolution prior to that window or establish causal direction between capacity constraint and management informality with full confidence. The practical and academic implications, substantial and directly actionable given this study's institutional-management focus, are developed in the following section. Future research should extend this study's CIPP-structured, multi-vantage-point design across a larger sample of Indonesian maritime vocational institutions to test whether the loosely coupled, resource-dependence-driven, and capacity-constrained pattern this study documents generalizes, and should test directly whether targeted administrative capacity investment, adding dedicated placement-coordination staffing time, for instance, measurably improves the coupling, partnership governance, and readiness-tracking outcomes this study identifies as currently deficient.

6. IMPLICATIONS AND RECOMMENDATIONS

The findings carry direct and specific implications for maritime vocational education

program management. Schools should establish a formal coordination mechanism connecting curriculum sequencing and placement management functions, even a modest structured information-exchange process, curriculum teachers briefed on partner-specific expectations prior to placement assignment, placement coordinators briefed on curriculum content students have completed, would directly address the loosely coupled pattern this study identifies as a primary source of the classroom-workplace gap documented in this research programme's companion study. Given this study's evidence that partnership management deliberateness tracks partner capacity rather than partner quality assessment specifically, schools should develop a minimal formal oversight standard applied uniformly across all placement partners regardless of capacity, even if oversight intensity reasonably varies, ensuring that lower-capacity partners are not left entirely unmonitored simply because they provide fewer placements.

Schools should adopt a standardized, documented readiness-assessment instrument administered prior to placement assignment, replacing the current reliance on informal teacher judgment and logistical convenience identified in this study's third theme, a recommendation directly actionable at relatively low resource cost relative to the administrative capacity investment other recommendations require, since a standardized instrument, once developed, does not require ongoing staffing increases to administer. Most directly, given this study's finding that administrative capacity constraint underlies the other three identified deficiencies, Indonesian vocational education policy makers and school leadership should consider dedicated placement-coordination staffing, rather than treating this function as an addition to existing teaching or administrative roles, as the single highest-leverage intervention this study's evidence identifies, since capacity investment in this specific function plausibly addresses the coordination, partnership-governance, and readiness-tracking deficiencies simultaneously, rather than requiring three separate interventions addressing what this study's evidence suggests is substantially one underlying resource constraint.

For future scholarship, this study's CIPP-structured, resource-dependence-and-institutional-linkage-informed framework offers a transferable model for examining program management in other vocational education contexts facing comparable external placement dependence, wherever a school's outcomes depend substantially on relationships with external partner organizations it does not control directly. Researchers extending this work should prioritize multi-institution comparative designs capable of testing whether schools

with more tightly coupled, more formally governed, and more systematically resourced pathway management practices produce measurably better and more equitable student outcomes than the loosely coupled pattern this single-institution study documents, a comparative test this study's design could establish the framework for but could not itself conduct.

7. CONCLUSION

This study examined how a maritime vocational high school in Jakarta manages the student readiness pathway connecting classroom instruction to industry apprenticeship placement. Curriculum and placement management functions operated as a loosely coupled system connected primarily through informal communication; partnership governance concentrated formal management attention on high-capacity partners consistent with resource dependence theory; readiness tracking prior to placement relied substantially on informal teacher judgment rather than systematic assessment; and administrative capacity constraint emerged as the primary factor underlying all three deficiencies. These findings extend resource dependence and institutional linkage theory into Indonesian maritime vocational education, reframe classroom-workplace gaps documented in companion research as partly a management rather than purely a curricular phenomenon, and support administrative capacity investment as the highest-leverage intervention for improving pathway management quality and student outcome equity.

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