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Institutional Management and Perceived Student Outcomes in Blended Vocational Education: A Multi-Stakeholder Study

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Abstract

Blended learning in vocational colleges requires coordination between institutional decisions and daily teaching practices. This study examines institutional management from the perspectives of administrators, faculty members, and students, and explores the relationship between management practices and perceived student learning outcomes. Survey data were obtained from 862 respondents across three public vocational colleges in Nanjing, including 152 administrators, 330 faculty members, and 380 students. All three groups assessed six dimensions of institutional management, while faculty members and students (n = 710) also evaluated five dimensions of perceived learning outcomes. Descriptive statistics, group comparisons, and Pearson correlation analyses were employed. The findings revealed generally favorable assessments of institutional management, with no statistically significant differences among the three respondent groups at the dimension level. Faculty and students also reported relatively positive perceptions of learning outcomes. The use of evaluation findings to inform instructional improvement received comparatively lower ratings from administrators (2.55), faculty (2.47), and students (2.49), indicating an area for further institutional attention. All 30 correlations between management practices and perceived learning outcomes were very weak and statistically nonsignificant (r = −0.064 to 0.062). These findings highlight the importance of translating institutional monitoring and evaluation into practical instructional improvements, while recognizing the limitations of perception-based measures in establishing relationships with student learning outcomes.

Keywords

Blended Learning; Institutional Management; Multi-Stakeholder Perspectives; Perceived Learning Outcomes; Vocational Education

1. Introduction

A vocational course does not divide neatly into online and classroom components. A

recorded demonstration may prepare students for workshop practice, but an instructor must still observe technique, correct mistakes and assess safety. Blended learning depends on how preparation, supervised practice and feedback are sequenced, not simply on the platform used [1, 2, 3].

The quality of that sequence depends in part on college-level decisions. Policies shape instructors' course-design time, access to equipment and technical support, and the follow-up of teaching problems. Administrators oversee provision, faculty work within it and students experience the consequences. A management system that looks coherent in official documents may be experienced quite differently in a workshop or on a mobile learning platform [4, 5].

The study asks how the three groups rate six areas of blended-learning management; whether faculty and students rate perceived outcomes differently; and whether management ratings are associated with those outcomes. Particular attention is paid to whether monitoring information is used to improve instruction.

2. Conceptual Background

Research has identified persistent challenges in blended course design, teacher preparation, student support and technology access [1, 5, 6]. Although colleges often assign these tasks to different offices, they affect the same learning experience. Strategic planning can set responsibilities [7]; the greater challenge is connecting online study, practical instruction and assessment in vocational courses [3, 4, 8].

The six management dimensions are strategic leadership, policy and governance, curriculum and instructional management, faculty development and support, technological infrastructure and digital resources, and monitoring and evaluation. All three groups rated these dimensions; faculty and students also rated perceived achievement, engagement, collaborative learning, self-directed learning and satisfaction. These viewpoints are complementary, not interchangeable. Perceived achievement is not a substitute for examination results or demonstrated vocational competence.

The stakeholder groups see different parts of this process. Administrators can judge whether a plan has been adopted or a monitoring procedure established. Faculty can judge whether the procedure helps them alter a lesson or respond to student difficulty. Students are well placed to report whether the platform works when needed and whether online tasks connect with classroom practice. These perspectives do not carry identical information. Agreement among them is useful, but it should not be mistaken for proof that a policy has been implemented uniformly across courses. For the same reason, a monitoring system deserves attention not only for collecting information but for whether that information leads to instructional changes [9, 10].

3. Materials and Methods

3.1. Data and measures

The study used a cross-sectional, descriptive-comparative-correlational survey at Nanjing Polytechnic Institute, Nanjing Vocational College of Information Technology and Nanjing City Vocational College. The analytical dataset has 862 records: 152 administrators, 330 faculty and 380 students, distributed across colleges as 303, 321 and 238. All three groups rated management practices; only faculty and students rated learning outcomes (n = 710 for correlations). The colleges were purposively selected and respondents grouped by role; the findings are not representative of all provincial vocational colleges.

The researcher-developed instrument used a four-point scale, from 1 (low) to 4 (very great extent or very high level). Its 44 management items covered six dimensions (seven items in each of the first five and nine in monitoring); 39 items covered five perceived outcomes. Respondent-level dimension means were analyzed. No external grades or practical-skills tests were included.

3.2. Analytical approach

Descriptive means and item ratings were calculated. One-way analysis of variance compared management ratings among the three groups; independent-samples t-tests compared faculty and student outcome ratings. Pearson correlations tested 30 practice-outcome pairings among the 710 faculty and student records, with $p < 0.05$ as the significance threshold. Cronbach's alpha ranged from 0.736 to 0.851 for management and from 0.752 to 0.835 for perceived outcomes. The questionnaire cover letter informed respondents that their responses would be treated confidentially and used for the study.

Dimension scores average ordinal response categories, so the tests were interpreted as exploratory comparisons of questionnaire ratings, not exact measures of effectiveness. Cronbach's alpha indicates internal consistency but does not establish construct validity. With thirty correlations examined, interpretation focuses on effect size and recurring patterns rather than treating any single p-value as decisive.

4. Results

4.1. Institutional practices

All six management dimensions received relatively favorable ratings (Table 1). Faculty rated policy and governance at 2.86, administrators at 2.80 and students at 2.79; none of the six between-group comparisons was significant. Yet item-level results identified a shared concern: using evaluation findings to improve blended instruction was rated 2.55 by administrators, 2.47 by faculty and 2.49 by students. By contrast, checking whether blended-learning goals were met received 2.95, 2.82 and 2.88, respectively. All three groups thus identified a monitoring-to-action gap.

Several other items help show why the overall means need closer reading. Opportunities for discussion and practical work in face-to-face sessions were rated

2.57 by administrators, 2.67 by faculty and 2.60 by students. Responsiveness of professional development to teachers' blended-learning needs received 2.59, 2.64 and 2.64, respectively. Students rated the reliability of internet access at 2.57, compared with 2.80 among administrators. These are item-level descriptions, not separate tests of statistically significant disagreement. Even so, they direct attention toward familiar operational concerns: practice time, staff support and dependable access. An average for a broad management dimension can obscure such specific weaknesses.

Table 1. Means for institutional practices by role and group-comparison p-values

Practice dimension	Admin.	Faculty	Students	ANOVA p
Strategic leadership	2.72	2.83	2.77	0.232
Policy and governance	2.80	2.86	2.79	0.343
Curriculum and instruction	2.78	2.80	2.77	0.856
Faculty development and support	2.75	2.76	2.76	0.972
Technology and digital resources	2.77	2.75	2.72	0.633
Monitoring and evaluation	2.72	2.73	2.71	0.935

Note. N = 862 records (152 administrators, 330 faculty, 380 students). All p-values exceed 0.05.

4.2. Perceived learning outcomes

Faculty and students rated perceived outcomes favorably (Table 2). Dimension-level differences were nonsignificant, though the means were not identical. Engagement averaged 2.69 among faculty and 2.79 among students ($p = 0.056$); self-directed learning averaged 2.70 and 2.66, respectively. Satisfaction was about 2.75 in both groups. Relatively low item ratings for sustained participation and study-time management point to support needs. These are perceptions rather than measured gains in achievement.

The engagement items were less uniform than the overall score suggests. Faculty rated students' sustained involvement throughout blended learning at 2.57, while students rated the same statement at 2.72. Completing learning tasks on time was rated 2.60 by faculty and 2.69 by students. These gaps may reflect how respondents interpret participation: teachers observe completion and continuity across activities, whereas students also know what they do outside the classroom. The survey cannot determine why the responses differ. It does, however, identify questions worth discussing with both groups when a course is reviewed rather than reducing engagement to a single satisfaction indicator.

Table 2. Perceived learning-outcome means and faculty-student comparisons

Outcome dimension	Faculty	Students	t-test p
Academic achievement	2.75	2.78	0.580
Student engagement	2.69	2.79	0.056
Collaborative learning	2.75	2.73	0.704
Self-directed learning	2.70	2.66	0.481
Learner satisfaction	2.75	2.75	0.990

Note. N = 710 (330 faculty and 380 students). All p-values exceed 0.05.

4.3. Practice-outcome relationships

The 30 Pearson correlations were close to zero (Table 3), ranging from -0.064 to 0.062, with none significant at 0.05. The largest positive estimate linked governance and self-directed learning (r = 0.062, p = 0.101); the most negative linked monitoring and perceived academic achievement (r = -0.064, p = 0.088). Neither establishes an interpretable linear relationship. A null result here does not mean that institutional management is educationally unimportant.

Table 3. Pearson correlations between practices and perceived learning outcomes

Practice dimension	Acad.	Engage.	Collab.	Self-dir.	Satisf.
Strategic leadership	0.022	0.010	0.051	0.018	0.029
Policy and governance	0.019	-0.002	0.012	0.062	-0.040
Curriculum and instruction	0.006	0.033	0.021	-0.030	0.003
Faculty development	0.013	-0.003	-0.036	0.048	-0.005
Technology and resources	0.027	0.026	-0.048	-0.003	0.021
Monitoring and evaluation	-0.064	0.027	-0.030	-0.010	-0.019

Note. N = 710; all 30 reported p-values exceed 0.05. Column labels abbreviate achievement, engagement, collaboration, self-direction and satisfaction.

5. Discussion

The results combine broad agreement with specific concerns. No dimension-level differences among administrators, faculty and students were statistically significant, yet this does not imply identical experiences. A formal policy may do little for tomorrow's workshop, and a platform may be available but unreliable during an assignment. Lower item scores point to operational problems worth examining across roles.

All thirty management–outcome correlations were nonsignificant and extremely small. Higher management ratings were not consistently associated with better perceived outcomes in these data, although that does not establish that institutional decisions are unimportant. The survey measured broad institutional impressions at one time, without tracing how particular policies affected teaching or assessed competence in specific courses.

The distinction matters in vocational education. Colleges decide on equipment, scheduling and assessment support, but students encounter those arrangements in particular workshops and tasks. Future studies could link documented management actions to observed teaching, assessed practical performance and changes over time. Survey ratings locate perceived needs; alone, they cannot explain learning gains.

The most concrete management issue is the step between collecting information and acting on it. The comparatively high ratings for checking blended-learning goals contrast with noticeably lower scores for using evaluation findings to improve

instruction. One workable response would be a modest course-review cycle: identify one recurring learning problem, discuss the relevant student and teacher feedback, agree on a change, and check the results in the following teaching period [9]. This need not become another reporting exercise. Its value depends on whether the discussion reaches a decision about lesson structure, practice opportunities or student support.

Faculty development should follow the same principle. A generic platform workshop may be less immediately useful than coaching a teacher to redesign a difficult lesson: deciding which concepts students can prepare online, how demonstration time can be protected and what evidence would show that a practical task has been mastered. For students, support for realistic weekly planning, timely feedback and continuity between online and face-to-face tasks responds to the weaker engagement and self-direction items [1, 6, 10]. These suggestions arise from the pattern of ratings; the survey did not test their effectiveness as interventions.

Several limitations remain. The three colleges were purposively selected, and the outcome measures were reported only once by faculty and students. Ratings may reflect expectations, recent experiences or the wording of survey items rather than observed academic progress. Respondents were clustered within colleges, but the reported group comparisons and individual-level correlations did not explicitly model that clustering. Findings are best understood as patterns in the participating records, not population estimates for vocational education in Jiangsu. Triangulating survey responses with course documentation, observed skills and follow-up interviews would strengthen a future study.

6. Conclusion

Administrators, faculty and students generally rated institutional management of blended vocational education favorably, while faculty and students also rated perceived outcomes positively. There were no significant dimension-level group differences or practice–outcome correlations. The sharper finding is a gap between monitoring blended-learning implementation and using evaluation results to improve instruction. The participating colleges could prioritize feedback that informs course decisions. Whether those decisions improve academic or practical performance remains untested and requires direct learning measures over time.

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