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Leadership Style on Faculty's Change Response to Competency-Based Education

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This study examined the relationship between the leadership styles of community college leaders and faculty change responses to adopting competency-based education (CBE) employing a quantitative non-experimental design. Further examining transformational and transactional leadership theories, the study investigated how leadership impacts faculty members' acceptance of change, proactivity, disengagement, and resistance. As community colleges play a vital role in addressing local workforce demands, innovative approaches like CBE are essential. Effective leadership is critical for the successful implementation of CBE. The study employed the *Multifactor Leadership Questionnaire – Adapted Version* and the *Change Response Circumplex Scale* to assess faculty members' perceptions. These data were analyzed using Spearman's Rank correlation, independent samples t-test, and MANOVA to evaluate the responses. The results indicated that transformational and transactional leadership styles were positively correlated with faculty change acceptance, meaning that when leaders exhibit these qualities, faculty members tend to embrace CBE-related changes. Further results validated that leadership relationships on faculty's change response were nuanced and context dependent. While transformational and transactional leadership each had distinct relationships, their combined influence was relatively stable, suggesting that a balanced approach, leveraging both styles, might yield optimal results. Lastly, the findings indicated that transformational leaders had a positive influence on change acceptance and proactivity, whereas transactional leaders might encounter more disengagement and resistance. Community college leaders should recognize the importance of their leadership style in shaping faculty responses to change. Effective leadership strategies are essential for implementing competency-based education, underscoring the importance of flexible leadership styles that foster faculty engagement and active involvement.

Keywords: competency-based education, leadership styles, faculty change response, change management, community colleges

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The imperative for higher education to adapt and innovate in response to a rapidly evolving world has placed competency-based education (CBE) at the forefront of transformative strategies aimed at enhancing affordability, quality, and on-demand skills (Hortman, 2017). This mastery-based learning approach represents a significant innovation (Bloomer, 2017; Hortman, 2017). However, faculty accustomed to credit-hour models often view CBE with skepticism due to unclear implementation and the subsequent impact on their roles (Hortman, 2017). Leadership support is crucial for the successful implementation of CBE, particularly in two-year institutions (Kozioł-Nadolna, 2020; Mason et al., 2020). Therefore, understanding how the practices of community college leaders influence faculty's responses to change is vital for successful CBE adoption.

Higher education reforms, propelled by political, economic, and stakeholder pressures, strive to deliver high-quality, on-demand education (Amato, 2021). Community colleges are at the forefront of meeting these demands, with CBE gaining significant traction as a study-mastery-focused approach offering flexible enrollment and credential attainment (Amato, 2021; Opportunity America Working Group on Community College Workforce Education, 2020). Though aligned with the evolving needs of stakeholders, CBE causes significant disruption to traditional higher education practices (Amato, 2021) and is considered a major reform initiative (Hortman, 2017). Despite growing interest, empirical evidence supporting the benefits of CBE is limited, raising concerns about intellectual development and reduced classroom interaction (Chen, 2017). Implementing CBE effectively necessitates flexible student support services and, crucially, the involvement of all stakeholders, especially faculty (Amato, 2021; Hortman, 2017). Faculty acceptance, proactivity, and engagement are critical for the success of change initiatives (Oreg et al., 2023). Committed leadership, early faculty involvement, transparent communication, and adequate training can mitigate faculty resistance (Mason et al., 2020). The endorsement of executive leadership is essential in empowering faculty and ensuring the successful implementation of CBE. Balancing tradition with innovation is key for higher education institutions to thrive (Kellogg, 2018), and faculty play a vital role in championing innovation while maintaining quality.

In educational innovation, CBE stands out as a transformative model, promising personalized learning, student mastery of skills, and flexible educational pathways (Horohov, 2017). However, the successful implementation of CBE hinges on more than just curriculum design and technological infrastructure. It requires the active engagement and buy-in of all stakeholders, especially faculty members. This collective embrace fosters advocacy and collaboration, ultimately ensuring the program thrives (Ivers, 2021).

Despite the proliferation of change strategies and approaches, faculty resistance to change remains a fundamental concern among institutions that invest in and adopt CBE (Mason et al., 2020). Leadership plays a pivotal role in addressing faculty resistance by fostering a culture of collaboration and addressing concerns directly (Ivers, 2021). Given the scarcity of research explicitly addressing how leadership can mitigate faculty resistance during the transition to CBE, this study aims to contribute

valuable insights to bridge this gap. Community college leaders need effective strategies to motivate their employees to commit to organizational change (Maxwell & Gallagher, 2020).

This research examines the relationship between the leadership styles of community college leaders (transformational, transactional, and laissez-faire as defined by the Full-Range Leadership Model) and faculty change responses (using the Change Response Circumplex Scale) during CBE implementation. The primary objectives are to determine if leadership significantly influences faculty change response and to identify faculty change responses to different leadership styles. The study addresses the following questions:

1. What is the relationship between community college leaders' leadership style and faculty's change response to adopting competency-based education?
2. Is there a difference between transformational and transactional leaders and the acceptance of change to competency-based education in faculty?
3. What is the difference in faculty's change acceptance, change proactivity, change disengagement, and change resistance, and how do transformational and transactional leaders compare?

In summary, CBE offers a promising approach for community colleges to meet the needs of non-traditional students and address workforce demands. While research exists on CBE design and implementation, limited and outdated studies focus on leadership strategies for CBE implementation in community colleges and the impact of different leadership styles on faculty responses to change. Existing models, such as the Full Range Leadership Model and the Change Response Circumplex, provide robust frameworks for understanding leadership behaviors and individual responses to organizational change; however, their application specifically within the context of CBE adoption in community colleges, particularly concerning faculty perceptions, remains unexplored. Therefore, this study seeks to contribute to the existing literature by providing contemporary insights into how the leadership styles of community college leaders, particularly within the Full-Range Leadership Model, influence faculty change responses to the adoption of competency-based education. By investigating this relationship, this research aims to equip community college leaders with evidence-based strategies to facilitate the smooth and more effective implementation of CBE, ultimately benefiting both faculty and the diverse student populations they serve in this evolving landscape of higher education.

This study is particularly significant given the disruptive nature of CBE and the need for intentional change leadership. CBE is not simply a pedagogical innovation—it challenges legacy systems, institutional mindsets, and operational norms. Before colleges can manage the logistics of implementation, they must first lead a cultural shift that prepares stakeholders for transformation (Dragoo & Barrows, 2016; Fullan, 2007; Kotter, 1996). By exploring leadership styles in the context of

faculty response, this research contributes to a deeper understanding of how institutional change can be effectively initiated and sustained.

Review of Literature

The dynamic and constantly evolving economy, driven by technological advancements, globalization, and shifting workforce demands, necessitates adaptation within higher education. Traditional modes of education are being challenged, and institutions need to respond to emerging trends. Competency-based education (CBE) provides a flexible delivery method that can accommodate the needs of students under considerable pressure from external factors such as work, family, and community (Morrison, 2018). This quantitative study investigates the impact of community college leaders' leadership styles on faculty responses to change during CBE implementation. While CBE gains prominence, the existing academic literature, particularly concerning faculty responses and leadership's role in the transition in community colleges, remains limited. Despite extensive research on effective leadership and its impact on institutional outcomes, as well as the role of CBE in preparing students for the job market, there remains a need for further investigation into how different leadership styles affect faculty buy-in for competency-based courses. Community colleges, vital in supporting diverse student populations, require leaders who can facilitate faculty acceptance of innovative approaches like CBE.

American community colleges, established in the early twentieth century to meet the demand for trained workers and promote social equity (Cohen & Brawer, 2003; Horohov, 2017), have undergone significant evolution. Today, these publicly funded institutions serve 38% of all undergraduate students across 1,038 campuses, offering affordable pathways to higher learning and workforce readiness (American Association of Community Colleges, 2023). They cater to diverse populations, including a growing majority of "non-traditional students" who often delay enrollment, attend part-time, work full-time, and have dependents (Choy, 2002; McGraw, 2018; Zerquera et al., 2016). The increasing demand for skills-based hiring, rather than solely traditional degrees, further highlights the pivotal role of community colleges in bridging the gap between education and employment in a rapidly evolving economy (Fuller et al., 2022; Opportunity America Working Group on Community College Workforce Education, 2020). Community colleges align programs with local economic trends and enhance social and economic mobility (Maxwell & Gallagher, 2020).

To effectively serve their diverse student body, particularly non-traditional learners, community colleges are exploring learning strategies that offer flexibility (Maxwell & Gallagher, 2020). CBE aligns with andragogical principles, allowing students to progress at their own pace, incorporating industry-relevant competencies, utilizing instructors as mentors, and employing authentic assessments (Thackaberry, 2017). While gaining recent prominence, CBE emphasizes flexible pacing, earning credit through demonstrated mastery rather than seat time, and has no fixed due dates (Bloomer, 2017; Day, 2022; Horohov, 2017). Its core tenets – equity, explicit competencies, timely support, customized instruction, and master-based progression

– make it highly suitable for the diverse needs of non-traditional learners in community colleges (Day, 2022; Hortman, 2017). CBE's flexibility, cost-effectiveness, and focus on practical job-relevant competencies enhance accessibility (Chen, 2017; Day, 2022), promoting transparency and accountability by clearly defining graduate skills (Horohov, 2017). Despite its potential, concerns exist regarding the implementation of CBE, including the challenge of maintaining a deep conceptual understanding of performance and the potential to diminish social learning aspects (Chen, 2017; Day, 2022; Thompson, 2017).

Moving to CBE is not merely a pedagogical adjustment—it represents a paradigmatic shift in how institutions conceive of learning, assessment, and student success. Unlike traditional models based on credit hours and time-based progression, CBE demands a reconfiguration of institutional systems, mindsets, and cultures (Kellogg, 2018; Thackaberry, 2017). This level of disruption requires what Fullan (2007) and Kotter (1996) describe as "change leadership"—a strategic, vision-driven approach that precedes operational change management. Institutions must first cultivate readiness through levers such as incentives, stakeholder engagement, and cultural alignment before implementing new processes and practices (Dragoo & Barrows, 2016). Recognizing CBE as a disruptive force underscores the urgency of leadership that can navigate complexity, foster buy-in, and sustain momentum. This study contributes to the field by examining how leadership styles influence faculty response during such transformative change.

Change is a constant in higher education, driven by the need to serve an evolving student population. While CBE offers numerous benefits, its implementation necessitates significant adjustments across college operations, including financial aid, admissions, advising, faculty schedules, rewarding credits, and the technologies to teach students (Amato, 2021). Resistance to change, often stemming from unfamiliarity and perceived impact on roles, is a significant hurdle in CBE adoption (Hortman, 2017). Clear rationale, transparency, and time for adaptation are crucial strategies for addressing resistance (Hortman, 2017); involving stakeholders in the change process fosters investment and eases resistance (Horohov, 2017). Executive leadership's unwavering support for innovation is also crucial for empowering faculty and ensuring the successful adoption of CBE.

Faculty and staff responses to change play a crucial role in determining the success of organizational changes like CBE (Oreg et al., 2023a). The Change Response Circumplex offers a nuanced understanding of individual reactions to change, moving beyond a simple positive-negative continuum (Oreg et al., 2023a). Based on valence (positive/negative) and activation (high/low), it identifies four quadrants: change acceptance (positive/low), change proactivity (positive/high), change disengagement (negative/low), and change resistance (negative/high) (Oreg et al., 2018, 2023a). Understanding both valence and activation, particularly active responses, is crucial for successful change outcomes (Oreg et al., 2023a). This framework can help community college leaders tailor support and communication during CBE implementation.

Leadership in higher education, particularly in community colleges facing governmental oversight, accreditation, and diverse student populations, requires effective strategies to navigate a rapidly changing landscape (Hardison, 2020; Kreft, 2022). Despite the potential of CBE, widespread adoption in community colleges is hindered by competing priorities, lack of expertise, incompatible systems, startup costs, and accreditation concerns (Ivers, 2021). Successful implementation hinges on effective leadership to manage change and cultivate a culture of innovation (Ivers, 2021; Hardison, 2020).

The Full Range Leadership Model (FRLM), which encompasses transformational, transactional, and laissez-faire leadership (Woods, 2021), focuses on leader-follower relationships and a spectrum of behaviors ranging from passive to active (Chaimongkonrojna & Steane, 2015; Woods, 2021). Transformational leadership emphasizes inspiration and motivation, transactional leadership focuses on exchanges and management, and laissez-faire represents a hands-off approach (Davenport, 2023; Hardison, 2020; Williams, 2016). Effective leaders utilize a range of these behaviors **(**Williams, 2016; Woods, 2021**)**. Research suggests that transformational leadership may be beneficial in the initial development of CBE, while transactional leadership (Woods, 2021)could be more relevant for sustaining its processes (Ivers, 2021). A combination of leadership styles may be optimal for the successful implementation of CBE (Ivers, 2021). Strong senior leadership support, cross-functional collaboration, and proactive engagement with faculty and staff to address concerns are crucial for the successful adoption of CBE (Anderson & White, 2019; Dragoo & Barrows, 2016).

In summary, CBE offers a promising approach for community colleges to meet the needs of non-traditional students and address workforce demands (Chen, 2017; Haviland et al., 2021; McGraw, 2018). While research exists on CBE design and implementation, limited and outdated studies focus on leadership strategies for CBE implementation in community colleges and the impact of different leadership styles on faculty change response. Therefore, this study seeks to contribute to the existing literature by providing contemporary insights into how community college leaders' leadership styles, particularly within the Full-Range Leadership Model, influence faculty change responses to the adoption of competency-based education. By investigating this relationship, this research aims to equip community college leaders with evidence-based strategies to facilitate smoother and more effective CBE implementation, ultimately benefiting both faculty and the diverse student populations they serve in this evolving landscape of higher education.

Methods

This quantitative, non-experimental correlational study investigated the relationship between community college leaders' full-range leadership styles (transformational, transactional, and laissez-faire) and faculty's change responses (acceptance, proactivity, disengagement, and resistance) during the implementation of

competency-based education (CBE). This research addressed a gap in the literature regarding the influence of senior leadership on faculty responses to change in higher education, particularly in relation to CBE adoption.

Research Paradigm and Design

This study adopted a positivist paradigm, aligning with its quantitative approach to identify cause-and-effect relationships and explore correlations among measurable variables (Creswell & Creswell, 2018). A correlational design examined relationships between leadership styles and faculty change responses without variable manipulation (Schober et al., 2018). This approach enabled statistical analysis with impartiality and precision (Creswell & Creswell, 2018).

The independent variables were community college leaders' transformational, transactional, and laissez-faire leadership styles, as perceived by faculty. The dependent variables were the faculty's acceptance of change, change proactivity, change disengagement, and change resistance. A cross-sectional survey design was chosen to gather data on attitudes and opinions from a sample of the target population at a single point in time (Creswell & Creswell, 2018). Although this study did not examine specific stages of change management, faculty responses—ranging from acceptance to resistance—may reflect different phases of organizational change. Future research could explore how leadership styles align with these stages to gain a better understanding of timing and strategy in institutional change.

Sampling Procedures and Data Collection

Maximum variation purposive sampling recruited faculty (aged 18 and above) from community colleges that were exploring or implementing CBE between 2018 and 2024 (Campbell et al., 2020; Nikolopoulou, 2023). These institutions represented a range of stages in CBE adoption, including pilot programs, department-level implementation, and full institutional transitions. This variation was considered in the analysis to contextualize leadership influence across different scopes of change, including faculty from both exploratory and active implementation phases, which allowed for a broader understanding of leadership influence across the change continuum. This mix was designed to capture a range of faculty experiences with CBE-related change. This method aimed to capture a diverse range of experiences and viewpoints regarding the transition to CBE.

An a priori power analysis using G*Power version 3.1.9.7 (Faul et al., 2007) determined minimum sample sizes for each statistical test:

- Spearman's Rank correlation (RQ1): $N = 29$ (for $\rho = 0.5$, $\alpha = 0.05$, 80% power)
- Independent samples t-test (RQ2): $N = 42$ (for large effect size = 0.8, $\alpha = 0.05$, 80% power)
- Two-way repeated measures MANOVA (RQ3): $N = 20$ (for large effect size = 0.5, $\alpha = 0.05$, 80% power)

Given these considerations, a target sample size of 60 participants was set to enhance the study's robustness, with a minimum of 42 deemed adequate.

Ethical approval was obtained from the University of the Cumberlands' Institutional Review Board, and site-specific IRB approval or access was secured from participating community colleges. Faculty received an email invitation with a web link to the survey hosted on Microsoft Forms, emphasizing voluntary and anonymous participation. The consent form outlined the purpose, criteria, procedures, time, risks, benefits, and confidentiality.

While this study focused on faculty perceptions, institutional and student demographic data were not collected. This limitation restricts the ability to contextualize findings based on institutional size, geographic location, or student population characteristics such as age, race/ethnicity, or enrollment status. Future research should incorporate these variables to enhance generalizability and better understand how leadership styles interact with institutional contexts and student diversity.

Two instruments were administered:

1. Multifactor Leadership Questionnaire – Adapted Version (MLQ-Adapted) (Xirasagar et al., 2005): A 43-item instrument using a 5-point Likert scale (0 = "Not at All" to 4 = "Frequently If Not Always") to assess perceptions of leaders' characteristics and leadership styles. Faculty were asked to rate the leadership styles of their direct supervisors or senior academic leaders. While the survey did not specify whether these leaders were directly responsible for CBE implementation, their influence on faculty perceptions of change remains relevant. Although psychometric data for the adapted MLQ were unavailable, the original version showed strong reliability (.63 to .92) (Bass & Avolio, 1995). The use of this adapted version, while drawing on a well-established instrument, is acknowledged as a potential limitation due to the absence of specific psychometric properties for the adaptation in this context.
2. Change Response Circumplex Scale (CRCS) (Oreg et al., 2023b): A 12-item instrument using a 5-point Likert scale (1 = "Disagree" to 5 = "Agree") measuring activation and valence in responses to organizational change. Content validity was strong (psa = .96, csv = .92), with Cronbach's alphas ranging from .58 to .90 across development studies, with McDonald's omega values of .82, .86, .76, and .85 for change acceptance, proactivity, disengagement, and resistance, respectively (Oreg et al., 2023a). Discriminant validity was largely established.

The full survey included consent, demographics, MLQ-Adapted, and CRCS items, consisted of 60 items, and took approximately 15 minutes to complete.

Statistical Tests

Data were analyzed using JASP, an open-source statistical software. Parametric tests treated Likert data as interval (Williams, 2016). Leadership style scores from the MLQ-Adapted were used to classify faculty perceptions of their leaders. For comparative analyses (RQ2 and RQ3), leaders were grouped based on domi-

nant style scores—transformational or transactional—using a median split approach. Laissez-faire scores were excluded from comparative tests due to low representation and conceptual divergence. While Likert scale data are ordinal by design, treating them as interval is supported in leadership and organizational research when scales have multiple items and demonstrate internal consistency (Norman, 2010; Carifio & Perla, 2008). This approach enabled parametric testing while maintaining interpretive validity.

Research Question 1: What is the relationship between community college leaders' leadership style and faculty's change response to adopting competency-based education?

- Spearman's Rank correlation was used due to the ordinal nature of the Likert-scale data and its robustness to outliers (Janse et al., 2021; Schober et al., 2018).

Research Question 2: Is there a difference between transformational and transactional leaders and the acceptance of change to competency-based education in faculty?

- An independent samples *t*-test was used to compare group means (Ross, 2017). Normality and variance assumptions were assessed using the Shapiro-Wilk and Levene's tests; the Mann-Whitney U was used if assumptions failed.

Research Question 3: What is the difference in faculty's change acceptance, change proactivity, change disengagement, and change resistance, and how do transformational and transactional leaders compare?

- A two-way repeated measures multivariate analysis of variance (MANOVA) was employed to examine the impact of two independent variables on multiple dependent variables simultaneously (Jungbok, 2016; Ross, 2017). Assumptions were tested using Shapiro-Wilk, Box's M, and Levene's tests. Data transformation or non-parametric alternatives were considered if assumptions were violated.

The use of MANOVA for RQ3 allowed simultaneous analysis of multiple change response dimensions—acceptance, proactivity, disengagement, and resistance—providing insight into how leadership styles may influence faculty behavior across the change continuum.

Results

This study investigated the effect of community college leaders' full-range leadership styles (transformational, transactional, and laissez-faire) on faculty's change responses (acceptance, proactivity, disengagement, and resistance) during the implementation of competency-based education (CBE). This section presents the results of the statistical analyses for the three research questions, followed by supplementary findings.

Participants and Research Setting

Faculty members (N = 63) from 15 public, two-year colleges across the United States participated in this study. These institutions were either exploring or had already implemented CBE. The sample included faculty from institutions at varying stages of CBE engagement, ranging from exploratory conversations to partial or full program implementation. Although the fidelity of the implementation was not measured, this variation offers insight into the influence of leadership across different institutional contexts. Participants had served as faculty between 2018 and 2024 and had engaged in conversations about CBE. Institutional demographic data were not collected. This omission limits the ability to contextualize findings based on institutional size, geographic location, or student population characteristics. Future research should incorporate these variables to enhance generalizability.

The participant demographic breakdown was:

- Gender: 31 male (49.2%), 31 female (49.2%), 1 preferred not to disclose (1.6%).
- Awareness of CBE Transition: 60 (95.2%) were aware, 3 (4.8%) were unaware.
- Years at Current Institution:
    - ≤ 3 years: 18 (28.6%)
    - 3–5 years: 5 (7.9%)
    - 5–7 years: 5 (7.9%)
    - 7–10 years: 6 (9.5%)
    - 10–15 years: 10 (15.9%)
    - 15–20 years: 10 (15.9%)
    - ≥ 20 years: 9 (14.3%)

Data were collected using the Multifactor Leadership Questionnaire–Adapted Version (Xirasagar et al., 2005) and the Change Response Circumplex Scale (Oreg et al., 2023b).

Analyses of Research Questions

Data were organized in an Excel spreadsheet and analyzed using JASP statistical software. Leadership style scores from the MLQ-Adapted were used to classify faculty perceptions of their leaders. For comparative analyses, leaders were grouped based on dominant style scores using a median split. Laissez-faire scores were excluded from comparative tests due to low representation and conceptual divergence. Non-normal data distributions (assessed by Shapiro-Wilk tests) led to the use of non-parametric tests where appropriate.

Research Question One

What is the relationship between community college leaders' leadership style and faculty's change response to adopting competency-based education?

A Spearman's Rank correlation analysis was conducted due to the non-normal distribution of data ($p < .001$). The analysis assessed the relationship between trans-

formational, transactional, and laissez-faire leadership styles and faculty's change acceptance, proactivity, disengagement, and resistance.

The results, presented in Table 1, indicate a positive correlation between Transformational Leadership and Change Acceptance, $r_{s(61)} = .332$, $p = .008$, and between Transactional Leadership and Change Acceptance, $r_{s(61)} = .286$, $p = .023$. However, no significant association was found between any leadership style and Change Proactivity, Change Disengagement, or Change Resistance. Therefore, the null hypothesis (H_{01}) was not rejected, indicating no substantial overall relationship between community college leaders' leadership style and faculty's change response to adopting CBE.

Table 1

Relationship Between Leadership Style and Faculty's Change Response to CBE

Leadership Style	Change Response	Spearman's rho	*p*
Transformational Leadership	Change Acceptance	.332	.008
	Change Proactivity	.215	.091
	Change Disengagement	-.161	.207
	Change Resistance	-.143	.265
Transactional Leadership	Change Acceptance	.286	.023
	Change Proactivity	.148	.247
	Change Disengagement	-.060	.642
	Change Resistance	-.052	.684
Laissez-Faire Leadership	Change Acceptance	-.197	.122
	Change Proactivity	-.046	.723
	Change Disengagement	.121	.347
	Change Resistance	.157	.219

Notes. $N = 63$. CBE = Competency-Based Education.

Research Question Two

Is there a difference between transformational and transactional leaders and the acceptance of change to competency-based education in faculty?

An independent samples *t*-test was initially performed. Levene's test indicated homogeneity of variances ($F = .50$, $p = .482$). However, the Shapiro-Wilk test revealed a non-normal distribution of transformational leadership scores ($p > .05$), whereas transactional leadership scores were normally distributed ($p < .05$).

Given the non-normality of the distribution, a Mann-Whitney U test was subsequently deployed. No significant difference in change acceptance was found between transformational ($Mdn = 4.00$) and transactional ($Mdn = 3.67$) leaders ($U = 255$, $p = .367$). The independent samples *t*-test also showed no significant difference ($t_{(61)} = .346$, $p = .731$, $d = -0.111$). Thus, the null hypothesis (H_{02}) was not rejected, suggesting no difference in change acceptance between transformational and transactional leadership styles.

Research Question Three

What is the difference in faculty's change acceptance, change proactivity, change disengagement, and change resistance, and how do transformational and transactional leaders compare?

Initially, a two-way multivariate analysis of variance (MANOVA) was planned; however, the Shapiro-Wilk Multivariate Normality Test revealed a significant deviation from a normal distribution ($W = 0.720$, $p < .001$). Consequently, a non-parametric Friedman test was conducted.

The Friedman test revealed significant differences among faculty responses related to change acceptance, proactivity, disengagement, and resistance ($\chi^2_{(5)} = 196$, $p < .001$), leading to the rejection of the null hypothesis (H_{03}). These differences suggest that leadership styles may influence faculty behavior across various stages of change, including initial acceptance, active engagement, or resistance. Although the change management stages were not explicitly measured, the response dimensions align with the common phases of organizational change.

Multivariate Tests for Transformational and Transactional Leadership:

- Transformational Leadership: Roy's Largest Root showed a significant difference ($F_{(4, 51)} = 4.64$, $p = .003$). However, Pillai's Trace ($F_{(16, 204)} = 1.260$, $p = .226$), Wilk's Lambda ($F_{(16, 147)} = 1.309$, $p = .199$) and Hotelling's Trace ($F_{(16, 186)} = 1.345$, $p = .174$) were not significant,
- Transactional Leadership: All multivariate tests were significant. Pillai's Trace ($F_{(16,204)} = 1.889$, $p = .023$), Wilk's Lambda ($F_{(16, 147)} = 2.123$, $p = .010$), Hotelling's Trace ($F_{(16, 186)} = 2.324$, $p = .004$), and Roy's Largest Root ($F_{(4, 51)} = 8.720$, $p < .001$).
- The combined effect of transformational and transactional leadership (interaction) did not differ significantly across all change response dimensions ($p > .05$ for all multivariate tests, as shown in Table 2).

Table 2
Difference in Faculty's Change Responses Compared to Leadership Style

Leadership Style	Multivariate Test	Value	*F*	*df1*	*df2*	*p*
Transformational Leadership	Pillai's Trace	.360	1.260	16	204	.226
	Wilk's Lambda	.666	1.309	16	147	.199
	Hotelling's Trace	.463	1.345	16	186	.174
	Roy's Largest Root	.364	4.640	4	51	.003
Transactional Leadership	Pillai's Trace	.516	1.889	16	204	.023
	Wilk's Lambda	.230	2.123	16	147	.010
	Hotelling's Trace	.800	2.324	16	186	.004
	Roy's Largest Root	.684	8.720	4	51	<.001
Transformational Leadership x Transactional Leadership	Pillai's Trace	.200	.536	20	204	.949
	Wilk's Lambda	.811	.521	20	160	.955
	Hotelling's Trace	.219	.510	20	186	.960
	Roy's Largest Root	.134	1.370	5	51	.250

Univariate Tests and Pairwise Comparisons (Friedman post-hoc with Durbin-Conover):

Univariate tests (Table 3) showed:

- Transformational Leadership: Significant differences for Change Acceptance ($p = .004$) and Change Proactivity ($p = .006$).
- Transactional Leadership: Significant differences for Change Disengagement ($p < .001$) and Change Resistance ($p = .011$).

Table 3
Univariate Tests for Change Responses

Leadership Style	Dependent Variable	Sum of Squares	*df*	Mean Square	*F*	*p*
Transformational Leadership	Change Acceptance	15.725	4	3.931	4.337	.004
	Change Proactivity	17.446	4	4.362	4.087	.006
	Change Disengagement	.592	4	.148	.266	.898
	Change Resistance	.708	4	.177	.335	.853
Transactional Leadership	Change Acceptance	2.860	4	.715	.789	.538
	Change Proactivity	3.618	4	.905	.848	.502
	Change Disengagement	18.194	4	4.548	8.173	< .001
	Change Resistance	7.754	4	1.938	3.671	.011
Transformational Leadership x Transactional Leadership	Change Acceptance	2.894	5	.579	.639	.671
	Change Proactivity	4.622	5	.925	.866	.510
	Change Disengagement	.487	5	.098	.175	.971
	Change Resistance	.946	5	.193	.365	.870
Residuals	Change Acceptance	46.229	51	.907		
	Change Proactivity	54.424	51	1.067		
	Change Disengagement	28.384	51	.557		
	Change Resistance	26.933	51	.528		

Pairwise comparisons using the Durbin-Conover test (Table 4) revealed:

- Transformational leadership significantly differed from transactional leadership ($p < .001$).
- Significant differences were found between transformational leadership and change proactivity, resistance, and acceptance ($p < .001$ for all).
- Significant differences were found between transactional leadership and change proactivity, resistance, and acceptance ($p < .001$ for all).
- Significant differences were found between transactional leadership and change disengagement ($p = .010$).
- Significant differences were observed among several change response dimensions (e.g., Change Proactivity vs Change Disengagement, $p < .001$; Change Resistance vs Change Acceptance, $p < .001$).
- No significant differences were found between:
    - Transformational leadership and change disengagement ($p = .209$).
    - Change proactivity and change acceptance ($p = .594$).

Table 4

Pairwise Comparisons of Faculty Responses

Variable 1	Variable 2	Statistic	*p*
Transformational Leadership	Transactional Leadership	3.852	< .001
Transformational Leadership	Change Proactivity	8.581	< .001
Transformational Leadership	Change Disengagement	1.259	.209
Transformational Leadership	Change Resistance	8.467	< .001
Transformational Leadership	Change Acceptance	9.115	< .001
Transactional Leadership	Change Proactivity	12.433	< .001
Transactional Leadership	Change Disengagement	2.593	.010
Transactional Leadership	Change Resistance	4.615	< .001
Transactional Leadership	Change Acceptance	12.967	< .001
Change Proactivity	Change Disengagement	9.840	< .001
Change Proactivity	Change Resistance	17.048	< .001
Change Proactivity	Change Acceptance	.534	.594
Change Disengagement	Change Resistance	7.208	< .001
Change Disengagement	Change Acceptance	10.373	< .001
Change Resistance	Change Acceptance	17.582	< .001

Supplementary Findings

An independent samples *t*-test was initially planned to compare gender differences in perceptions of leadership styles. However, due to non-normal distributions (Shapiro-Wilk test: females $W = .907$, $p = .011$; males $W = .924$, $p = .030$ for transformational leadership), a Mann-Whitney U test was performed.

The Mann-Whitney test indicated that female faculty perceived significantly more transformational leaders at their colleges ($Mdn = 3.000$, $M = 2.820$, $SD = .958$) than males ($Mdn = 2.500$, $M = 2.320$, $SD = 1.094$; $U = 338$, $p = .045$).

For transactional leadership, where both female ($W = .955$, $p = .215$) and male ($W = .979$, $p = .773$) perceptions were normally distributed, a Student's *t*-test was performed. No significant gender difference was found in perceptions of transactional leadership between females ($M = 2.037$, $SD = .589$) and males ($M = 1.982$, $SD = .934$; $t_{(60)} = .279$, $p = .781$).

These gender-based comparisons were exploratory and not part of the original research questions. The sample size and lack of intersectional demographic data (e.g., race, age, discipline) limit the ability to generalize these findings. However, the results may suggest that female faculty are more likely to perceive or experience transformational leadership behaviors, which could influence their openness to change initiatives, such as CBE. Future research should explore whether gendered perceptions of leadership impact faculty engagement or resistance during institutional change.

Summary

This summary synthesizes the study's key findings on how leadership styles influence faculty responses to change during the implementation of CBE. Faculty data were collected using the MLQ–Adapted and the CRCS, and analyzed in JASP.

Research Question 1 (Relationship between leadership style and change response): Spearman's Rank Correlation revealed positive correlations between transformational leadership and change acceptance, as well as between transactional leadership and change acceptance. However, no other significant correlations were found, leading to the failure to reject the null hypothesis. These findings suggest that both transformational and transactional leadership may foster faculty acceptance of change, though neither style showed a strong relationship with more active or resistant responses.

Research Question 2 (Difference in change acceptance between transformational and transactional leaders): An independent samples *t*-test and a Mann-Whitney *U* test both indicated no significant difference in faculty's change acceptance between transformational and transactional leadership, failing to reject the null hypothesis. This result suggests that faculty acceptance of CBE may not depend solely on whether leaders primarily use transformational or transactional styles, highlighting the potential importance of other factors such as institutional readiness or communication strategies.

Research Question 3 (Difference in change responses compared to transformational and transactional leaders): After an initial MANOVA plan, a Friedman test

was conducted due to multivariate non-normality, leading to the rejection of the null hypothesis, indicating an overall significant difference in change responses across conditions. Further univariate and pairwise comparisons (Durbin-Conover) showed nuanced effects, with transactional leadership demonstrating significant differences across more multivariate tests than transformational leadership. Notably, both leadership styles significantly impacted specific change response dimensions, but no overall interaction effect was found.

Supplementary Findings (Gender Differences): Female faculty members perceived significantly more transformational leadership than male faculty members, while perceptions of transactional leadership did not differ by gender. These gender-based comparisons were exploratory and not part of the original research questions. The sample size and lack of intersectional demographic data limit the generalizability of the findings. However, the results may suggest that female faculty are more likely to perceive or experience transformational leadership behaviors, which could influence their openness to change initiatives, such as CBE. Future research should explore whether gendered perceptions of leadership impact faculty engagement or resistance during institutional change.

Discussion and Implications

Community colleges, known for their adaptability and innovation, are increasingly exploring competency-based education (CBE) as a solution to address critical challenges in higher education, including access, equity, cost, and quality (Amato, 2021). CBE represents a fundamental shift from time-based learning to mastery-based progression, requiring not only curricular redesign but institutional transformation. Successful adoption hinges on faculty support and strategic leadership capable of guiding cultural operational change (Fullan, 2007; Hortman, 2017). Previous research suggests that a blend of transformational and transactional leadership is beneficial for implementing CBE (Ivers, 2021). This quantitative study investigated the impact of community college leaders' full-range leadership styles (transformational, transactional, and laissez-faire) on faculty's change responses (acceptance, proactivity, disengagement, and resistance) during the adoption of CBE.

Discussion of Key Findings

Research Question One: Relationship between Leadership Style and Faculty Change Response

The analysis revealed a positive correlation between transformational leadership and transactional leadership, as well as faculty change acceptance. Specifically, higher perceptions of transformational leadership ($r_{s\,(61)} = .332$, $p = .008$) and transactional leadership ($r_{s\,(61)} = .286$, $p = .023$) were associated with greater faculty acceptance of CBE-related changes. This finding aligns with previous research suggesting that both leadership styles can foster positive follower responses during change (Atwood, 2018; Ivers, 2021; Power, 2016). Transformational leaders, by creating a shared vision and motivating faculty, likely inspire greater acceptance (Hardison, 2020). Similarly, transactional leaders, through clear guidelines and expectations,

can facilitate the necessary clarity for faculty transitioning to CBE (Gacia Simpson, 2017; Kozioł-Nadolna, 2020).

Conversely, laissez-faire leadership showed no significant correlation with any change response, including a negative numerical trend in change acceptance (although not statistically significant, $r_{s\,(61)} = -0.197$, $p = .122$). This finding is consistent with the literature, which suggests that a lack of sufficient direction and support from laissez-faire leaders can hinder faculty buy-in and lead to inconsistent practices (Gacia Simpson, 2017; Woods, 2021). The lack of significant correlations for proactivity, disengagement, and resistance suggests that while leadership may influence initial acceptance, deeper engagement or resistance could be shaped by other factors such as institutional readiness, communication quality, or perceived workload. The overall failure to reject the hypothesis for RQ1 highlights that the relationship is nuanced and not universally strong across all change response dimensions.

Research Question Two: Difference in Change Acceptance between Transformational and Transactional Leaders

Contrary to some prior suggestions that transformational leadership might be more effective in driving change (Davenport, 2023), this study found no significant difference in faculty change acceptance between transformational and transactional leaders ($U = 255$, $p = .367$). This outcome suggests that both styles may be equally effective in fostering initial acceptance of CBE, reflecting the faculty's dual need for vision and operational clarity during complex change. This outcome supports the idea that both inspirational (transformational) and structured (transactional) approaches can lead to similar levels of acceptance, perhaps reflecting the dual needs of faculty during a complex change initiative like CBE: inspiration for the vision and clear operational guidance. The finding implies that community college leaders do not necessarily need to exclusively adopt one style over the other to gain initial faculty acceptance for CBE.

Research Question Three: Difference in Faculty Change Responses Compared to Transformational and Transactional Leaders

While the overall interaction effect between transformational and transactional leadership on faculty change responses was not significant, the Friedman test indicated significant overall differences among change response dimensions themselves ($\chi^2_{(5)} = 196$, $p < .001$). Multivariate analyses revealed that transactional leadership demonstrated significant effects across multiple change response dimensions (e.g., Pillai's Trace $F_{(16,204)} = 1.889$, $p = .023$), while for transformational leadership, only Roy's Largest Root was significant ($F_{(4, 51)} = 4.64$, $p = .003$).

Univariate tests further clarified these nuanced impacts:

- Transformational leadership had a significant positive influence on change acceptance ($p = .004$) and change proactivity ($p = .006$), indicating that transformational leaders are effective at promoting initial buy-in and encouraging faculty to take initiative.
- Transactional leadership showed significant effects on change dis-

engagement (p = .011) and change resistance ($p < .001$), indicating that while transactional leaders are crucial for managing processes, an overreliance on this style might inadvertently lead to higher levels of faculty disengagement or resistance when not balanced with other leadership elements.

- Pairwise comparisons confirmed significant differences between transformational and transactional leadership, as well as across various change response dimensions, emphasizing the multifaceted nature of faculty reactions to change and the differential impact of leadership styles.

These findings underscore that while both leadership styles can foster acceptance, their effects on other critical change responses (proactivity, disengagement, resistance) differ. Transformational leadership appears to encourage more active engagement, whereas transactional leadership, if not carefully managed, may be associated with passive negative responses, such as disengagement and resistance. This conclusion supports the view that CBE implementation requires adaptive leadership capable of balancing vision with structure and responding to faculty needs across the change continuum (Hortman, 2017; Power, 2016).

Supplementary Findings: Gender Differences in Leadership Perception

An exploratory analysis revealed a statistically significant difference in perceptions of transformational leadership between genders, with female faculty members perceiving more transformational leaders ($Mdn = 3.000$, $M = 2.820$) than male faculty members ($Mdn = 2.500$, $M = 2.320$; $U = 338$, $p = .045$), suggesting that gender may influence how faculty perceive the presence of inspirational and visionary leadership within their institutions. Conversely, perceptions of transactional leadership did not differ significantly between female and male faculty. This finding warrants further investigation into how gender influences leadership perceptions and its implications for leadership development and fostering an inclusive leadership culture.

These gender-based comparisons were exploratory and not part of the original research questions. The sample size and lack of intersectional demographic data (e.g., race, age, discipline) limit the generalizability of the findings. However, the results may suggest that female faculty are more likely to perceive or experience transformational leadership behaviors, which could influence their openness to change initiatives, such as CBE. Future research should explore whether gendered perceptions of leadership impact faculty engagement or resistance during institutional change.

Limitations of the Study

Several limitations should be considered when interpreting these findings:

1. Non-experimental Design: The correlational nature of the study prevents the establishment of causal relationships between leadership styles and faculty change responses.
2. Sample Specificity and Size: The study focused exclusively on faculty at a limited number of community colleges (N = 63), who were either

considering or implementing CBE. This limitation restricts the generalizability of the findings to other types of higher education institutions or a broader community college population. The relatively small sample size also impacts statistical power and precision.

3. Limited Demographics: Only gender, faculty status, years at the institution, and CBE awareness were collected. The absence of race, age, discipline, and institutional characteristics (e.g., size, location, and scope of CBE) limits contextual analysis and generalizability.
4. Instrument Limitations: Reliance on the Multifactor Leadership Questionnaire – Adapted Version, which excludes other leadership styles, introduced a limitation of construct validity. Both instruments rely on self-reported, subjective perceptions, introducing potential self-perception bias.
5. The Dynamic Nature of Higher Education: Uncontrolled external events or ongoing changes during the CBE transition could have influenced faculty responses, acting as confounding variables.

Implications for Future Study

This study offers several avenues for future investigation to enhance our understanding of CBE adoption in higher education:

1. Nuances of CBE Implementation: Future research should explore the diverse interpretations and implementation models of CBE across institutions. A clearer understanding of these variations could inform more standardized definitions and practices, potentially mitigating faculty confusion and resistance.
2. Deepening Faculty Perceptions and Attitudes: Further qualitative and mixed-methods studies are needed to explore the underlying factors contributing to faculty resistance or proactivity beyond what quantitative surveys can capture. Understanding the "why" behind faculty responses to leadership is crucial.
3. Specific Leadership Behaviors: Identifying which specific leadership behaviors within transformational and transactional styles are most effective during early, mid, and late stages of CBE implementation could inform targeted leadership development programs.
4. Workload Management and Support: Given faculty concerns about CBE-related workload, future research should investigate effective support mechanisms, such as professional development, peer mentoring, and workload-sharing strategies, and assess their impact on faculty engagement and well-being.
5. Expanded Participant Pool and Contextual Factors: Future studies should expand beyond faculty to include other stakeholders (e.g., administrators, instructional designers, student support staff) involved in CBE. Broadening the sample size and including demographic variables, such as race and age, as well as contextual factors like institu-

tional location (urban/rural), size, and specific CBE definitions, could provide more robust and generalizable findings.

6. Impact on Student Outcomes: Rigorous research is needed to empirically link leadership styles and CBE implementation strategies to measurable student learning outcomes, retention rates, and graduation rates. Future research would provide crucial evidence for the effectiveness of CBE and its leadership.
7. Interventional Studies: Experimental designs, such as pre-post surveys following targeted leadership or faculty training programs on CBE, could provide stronger evidence for causality regarding the impact of specific interventions on CBE acceptance and implementation.

Conclusion

This study underlines the complex interplay between leadership styles and faculty responses during CBE implementation in community colleges. While both transformational and transactional leadership can foster faculty acceptance, their differential impacts on proactivity, disengagement, and resistance highlight the need for a balanced and adaptable leadership approach. These findings reinforce the importance of change leadership—not just change management—in navigating the cultural and operational shifts required for CBE adoption. The exploratory finding regarding gender differences in perceiving transformational leadership also opens new avenues for research into leadership dynamics. By addressing the identified limitations and pursuing the suggested future research directions, the field can further enhance understanding and successful adoption of CBE, ultimately contributing to more effective and equitable higher education.

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