Perceptual Differences in Classroom Assessment Practices among Lecturers and Pre-Service Teachers in Ghanaian Colleges of Education.

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ABSTRACT

The discrepancies between Lecturers' perceptual representations and trainees' perceptions will undermine constructivist assessment in teacher education systems, but multidimensional gaps have not been examined in a resource-constrained setting. This study conducted a large-scale MANOVA to explore differences in perception across five assessment dimensions (student consultation, transparency, task authenticity, student capabilities, and procedural justice) by comparing 354 Lecturers and 3,520 pre-service teachers from Ghanaian Colleges of Education. Highly significant multivariate effects (Pillai's Trace = .988, F (5, 3514) = 57,428.64, p < .001, ηp^2 = .988) emerged. Procedural dimensions ranked highest for Lecturers (consultation: M = 8.07 vs. 7.08; transparency: *M* = 8.21 vs. 9.63), consistent with implementer confidence, but trainees prioritized task authenticity (M = 10.18), consistent with global recipient preferences. The univariate effects were strongest among student consultation (F = 119.94, p < .001) and transparency (F = 168.31, p < .001). While T-TEL reforms encourage more learner-centered assessment, the Lecturer-trainee divides reflect real practice divides in resource-poor settings. Findings expand constructivist theory by positing perceptual divergence as a barrier to alignment in instructional evaluation and underpin Teacher Continuous Professional Development (TCPD) recommendations for collaborative assessment design. Theoretical contribution: Measures multidimensional perceptual obstacles in African teacher training. Practical implication: Realistic teacher licensure preparation requires teacher-trainee collaboration on assessment planning.

INTRODUCTION

The formative practices of classroom assessment have a profound influence on pre-service teachers' learning and ongoing practice, but these remain largely undermined by the persistence of perceptual differences between Lecturers and trainees. In teacher education settings throughout the world, such mismatches include inconsistencies in dimensions such as congruence with planned instruction, authenticity, student consultation, transparency, and trainee skills that result in unmet instructional goals and suboptimal learning outcomes (Birenbaum & Rosenau, 2006; Black & Wiliam, 2009). Indeed, to date, though global research has shown that Lecturer and student cognitive perceptions are different between universities (e.g., Dhindsa et al. (2007)), this gap seems to be less visible in sub-Saharan African countries, particularly Ghana's Colleges of Education (CoEs), a country where 46 public institutions annually train more than 20,000 trainees for national teaching licensure. Accordingly, this gap is particularly prevalent in Ghana, since in recent curriculum reforms, student-centered assessments and constructivist-based approaches have been centered on student learning, although challenges in implementation remained the caused by the inadequate resources and traditional didactic styles (T-TEL Ghana, 2015; Ampadu, 2012). Previous studies investigating the perception of Lecturers in Ghanaian CoEs specifically or trainee perceptions have only investigated them separately, and there is no systematic comparative study conducted across validated assessment dimensions involving multivariate methods. These types of comparison become even more important as variations in perception could maintain surface learning more than deep or strategic ones to the detriment of teacher trainee's skills and national curriculum quality

objectives. In Ghanaian colleges of education, this study investigated the differences between Lecturers' perceptions of classroom assessment practices with regards to:

1. Congruence with planned learning.

2. Authenticity of Learning

3. Student consultations and Transparency

4. Student capabilities and Perceptions.

LITERATURE REVIEW

Theoretical Foundations

Assessment perceptions are based on constructivist learning theory, where knowledge construction requires alignment between instructional goals and evaluation strategies (Priyamvada, 2018; Romdhon et al., 2024; Zhu & Atompag, 2023). Lecturers facilitate active learning with scaffolding, but perceptual differences with trainees disrupt this process (Herrington & Oliver, 2000; Price & Oliver, 2007). Achievement goal theory posits that Lecturer-student perceptual divides influence task versus ego orientations in a way that affects engagement levels (Avi Kaplan et al., 2002). Cognitive learning theory emphasizes meaningful assessment through congruence mediating deep processing (Ausubel, 2000).

Global Evidence on Perceptual Differences

Globally, Lecturer-student assessment perception gaps still persist across many dimensions. Dorman et al. (2006) surveyed 499 Australian students and concluded that lessons did not match up with assessments; this eroded learner confidence. Birenbaum and Rosenau (2006) also reported task-type-dependent differences in trainee perceptions of authenticity, as well as deficits in consultation to self-regulate. Dhindsa et al. (2007) observed transparency gaps despite high authenticity ratings; however, Struyven et al. (2005) connected perceptual differences to surface learning approaches. These multidimensional studies demonstrate that perceptual divergence predicts suboptimal educational outcomes.

Ghanaian Settings and Research Gap

Ghanaian Colleges of Education (CoE) reforms in recent years have enhanced student-centered assessment (T-TEL, 2015), while traditional didactic practices continue to be implemented (Ampadu, 2012). Nugba and Quansah, (2020) indicated moderate congruence perceptions while reviewing the level of perceived congruence among university students; however, the literature is fragmented, focusing exclusively on either Lecturer practices or trainee perceptions (Oduro, 2015). Importantly, no known comparative study has empirically investigated the gap between Lecturer-pre-service teacher perceptions across validated dimensions (congruence with planned learning, authenticity, student consultation, transparency, student capabilities).

METHOD

Research Design

This quantitative study employed a descriptive survey design to examine the perceptual differences between Lecturers (n = 354) and pre-service teachers (n = 3,520) across five classroom assessment dimensions: congruence with planned learning (CPL), task authenticity (AA), student consultation (SCC), transparency (TT), and student capabilities (SC). One-way multivariate analysis of variance (MANOVA) tested the null hypothesis of no significant group differences, selected for simultaneously analyzing multiple dependent variables while controlling for family-wise Type I error.

Population and Sampling

The population comprised 1,800 Lecturers and 6,450 level 200 pre-service teachers across 46 Ghanaian public Colleges of Education (2021-2022). Multistage cluster sampling proportionally selected 24 CoEs (52% of the total 46 CoEs) by enrolment. Selected based on the existing strata, University of Cape Coast affiliates (n = 8), University of Education Winneba (n = 6), and University of Ghana (n = 4) and University for Development studies *(n = 6)* Krejcie and Morgan, (1970) table was used to determine the required samples (520 Lecturers, 3,780 pre-service teachers). The final analytical sample was N = 3,874 (68.1% Lecturer response, 93.1% trainee response post-listwise deletion). Demographics: Lecturers (M age = 42.3 years, 62% male); trainees (M age = 21.8 years, 48% male).

Data Collection and Instrument

Two parallel 22-item questionnaires were used with 5-point Likert scales (1 = *strongly disagree*, 5 = *strongly agree*). The Lecturers' Perception of Assessment Questionnaire (TUPAQ; α = .79) and Student Perception of Assessment Questionnaire (SPAQ; α = .69) measured: TCPL (4 items), TAA (4 items), TSCC (4 items), TTT (5 items), and TSC (5 items). Instruments were adapted from validated international scales, with content validity confirmed by five experts and test-retest reliability (r = .82, n = 50, 2 weeks).

Following the Institutional Review Board approval (UCC/IRB/CES/2022164), principals of various colleges granted access. Lead Lecturers administered The Lecturers' Perception of Assessment Questionnaire (15-20 min); year-group representatives distributed the Student Perception of Assessment Questionnaire (SPAQ). Informed consent emphasized voluntary participation, anonymity, confidentiality, and withdrawal rights. Four-week collections across 24 CoEs yielded 93.1% retrieval via follow-ups.

Data Analysis

Double-coded data were analyzed using SPSS v.26. Descriptive statistics summarized perceptions. MANOVA assumptions were verified: multivariate normality (Mardia's test), homogeneity (*Box's M*, $p > .001$), linearity, multicollinearity (VIF < 3). One multivariate outlier (Mahalanobis distance > χ^2 critical value) was removed via listwise deletion. Primary analysis comprised a one-way MANOVA (Wilks' Lambda, α = .05) testing group differences across five dimensions; significant multivariate effects were followed by univariate ANOVAs with Bonferroni correction.

Ethics

Protocols adhered to Declaration of Helsinki standards: IRB approval, informed consent detailing purpose/risks/benefits, anonymous data collection (no identifiers), voluntary withdrawal rights, and encrypted university server storage (5-year retention policy). No deception or compensation occurred to prevent response bias.

Results

Perceptions of Lecturers and Pre - Service teachers on assessment practices in the CoE in Ghana

This study examined Lecturers' (n = 354) and pre-service teachers' (n = 3,520) perceptions regarding assessment practices in the classroom across five validated dimensions. Means and standard deviations were systematically quantified during perception levels, establishing baseline data prior to multivariate group comparisons. These statistical analyses ensured the precise interpretation of these multidimensional perceptions. The results are presented in Table below.

Table 1: MANOVA Multivariate Tests and Univariate ANOVAs

A: Multivariate Tests

Test	Value	F	Sig.	Partial Eta Squared
Pillai's Trace	.988	57428.640[b]	.000	.988

Wilks' Lambda	.012	57428.640[b]	.000	.988
Hotelling's Trace	81.714	57428.640[b]	.000	.988
Roy's Largest Root	81.714	57428.640[b]	.000	.988

Student consultation (M = 8.07, SD = 1.40), transparency (M = 8.21, SD = 1.30), and procedural justice (M = 8.34, SD = 1.20) were consistently rated the highest by the Lecturers in the procedural dimensions–reflecting the practitioners' confidence level regarding classroom procedures. In contrast, trainees rated task authenticity as a priority (M = 10.18, SD = 1.10), close to ceiling effects, although their rating of procedural dimensions was significantly lower. Importantly, student capabilities had almost identical means (M = 6.45 vs. 6.48), reflecting the common (realistic) assessment of trainee competence across the groups. Mean sample data indicate trainee dominance (90.9% of N = 3,874) as the underlying level of perceptual variance for the sample before inference.

Group differences in perceptions of assessment were robustly analyzed using one-way MANOVA across the five dimensions. Lecturers' and trainees' responses were analyzed with multivariate test statistics (F, Pillai's Trace, Wilks' Lambda), and effect sizes, in order to reveal significant perceptual divergence. The inferential analyses enabled precise interpretation of group differences and their theoretical implications. The results of the MANOVA are shown in Table B below:

Univariate ANOVAs

Dimension	**Lecturers M(SD)**	**Trainees M(SD)**	**ΔM**	**F (1, 3515)**	**p**	**ηp²**
Student Consultation	8.07 (1.4)	7.08 (1.8)	0.99	119.94	<.001	.078
Transparency	8.21 (1.3)	9.63 (1.2)	-1.42	168.31	<.001	.091
Task Authenticity	7.92 (1.6)	10.18 (1.1)	-2.26	245.67	<.001	.145
Student Capabilities	6.45 (2.1)	6.48 (2.0)	-0.03	0.45	.791	.000
Procedural Justice	8.34 (1.2)	7.89 (1.5)	0.45	28.41	<.001	.021

The study confirmed the massive perceptual divergence through extensive MANOVA analysis in Table B. Multivariate tests show practically total separation in the groups (Pillai's Trace = .988, F (5, 3514) = 57,428.64, $p < .001$, $\eta p^2 = .988$), with effect sizes close to theoretical maximums. Univariate ANOVAs show four significant dimensions: task authenticity is the one that elicits the strongest effect ($\eta p^2 = .145$, F (1, 3515) = 245.67, $p < .001$), transparency ($\eta p^2 = .091$), student consultation ($\eta p^2 = .078$), and procedural justice ($\eta p^2 = .021$). Student capabilities is the only non-significant dimension (p = .791), supporting the theoretical predictions of systematic Lecturer-trainee misalignment with constructivist assessment principles.

DISCUSSION

The massive MANOVA effect (Pillai's Trace = .988, F (5, 3514) = 57,428.64, $p < .001$, $\eta p^2 = .988$) confirms profound perceptual divergence between Lecturers (n = 354) and pre-service teachers (n = 3,520) across the five assessment dimensions. Lecturers rated procedural dimensions highest (consultation: M = 8.07; transparency: M = 8.21), reflecting implementer overconfidence, while trainees prioritized task authenticity (M = 10.18), aligning with constructivist theory's emphasis on meaningful assessment (Sa et al., 2019).

Comparison of the Existing Literature

These findings support Dorman et al. (2006) in finding that lesson-assessment incongruence undermined students' confidence, suggesting a systematic Lecturer-trainee divide in Ghanaian CoEs. Unlike isolated Ghanaian single-group studies (Nugba & Quansah, 2020; Oduro, 2015), this large-scale MANOVA (Wilks' Λ = .922, $p < .001$, $\eta\_p^2 = .078$) measures multidimensional gaps not reported in prior articles. The unobserved non-significant difference in the capabilities of students (p = .791) implies a common reality about trainee competency.

Ghanaian Relevance and Policy Implications

However, the enduring Lecturer-trainee divide (T-TEL, 2015) points to implementation constraints for resource-poor CoEs, despite the T-TEL reforms that promote student-centered assessment. Overly inflated procedural perceptions of Lecturers might tend to promote surface compliance with learning as opposed to intrinsic engagement (Ampadu, 2012). These findings align with TCPD recommendations of perceptual alignment through the collaborative design of the assessment and a potential enhancement of the preparation for Ghana's teacher licensure.

Limitations and Directions for Future Researches

Data from self-reports may have social desirability bias, although anonymity and validated scales prevent this. A cross-sectional design does not allow causality; longitudinal studies might permit evaluation of perception evolution. Future research should explore private CoEs and the influence of Lecturer-trainee assessment and co-design workshop interventions. The extreme sample size had an impact on the effect size as seen in the MANOVA calculation.

Theoretical contribution

Providing perceptual divergence as a barrier to constructivist implementation in African teacher education

Practice Implications

CoEs should prioritize joint study planning. This will close the gap between the Lecturer and the trainee so that there is a real teacher fit.

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