

# Whose Standards? Examining Power, Fairness, and Voice in Pre-Service Teachers' Conceptions of Assessment

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## Abstract

This study examined how pre-service teachers in a CHED-aligned Philippine teacher education program understand fairness, power, and voice in assessment, and how these conceptions evolve through critical pedagogy-informed interventions. Anchored in Critical Action Research and guided by Freirean and Critical Assessment Literacy (CAL) framework, the study engaged 50 participants in the foundational course Assessment of Learning 1, integrating co-rubric design, peer feedback, and dialogic reflections alongside technical assessment tasks. Data were collected through semi-structured journal entries, focus group dialogues, praxis portfolios, and researcher reflections, and analyzed using Critical Thematic Analysis. Findings revealed that initial conceptions of fairness were largely procedural, power was unexamined, and student voice was peripheral. Through iterative interventions, participants reconceptualized fairness as equity, reframed power as reflective stewardship, and embraced student voice as essential to ethical assessment. These shifts, evident in 55–65% of post-course codes, demonstrated that technical competence alone is insufficient for transformative Teacher Assessment Literacy; ethical reflection and dialogic engagement are critical for developing Critical Assessment Literacy (CAL). The study offers a contextually grounded model for integrating technical, ethical, dialogic, and transformative literacies, highlighting the potential for pre-service programs to foster equity-centered, culturally responsive assessment practices in postcolonial Philippine classrooms.

**Keywords:** critical assessment literacy, teacher assessment literacy, fairness, power, student voice

## 1. Introduction

### 1.1 The Problem

In teacher education programs worldwide, including those in the Philippines and aligned with the Commission on Higher Education (CHED) Memorandum Order standards, assessment courses serve as a foundation of pre-service preparation. Yet these courses often emphasize technical proficiency over critical reflection—a tendency that can entrench inequities under the guise of efficiency. Foundational subjects such as Assessment of Learning 1, typically taken by third-year students during the first semester, concentrate on essential mechanics such as establishing goals and objectives, creating tables of specifications (TOS), designing objective-type tests, evaluating validity and reliability, and conducting item-analysis statistics (Commission on Higher Education [CHED], 2017a, 2017b). These components equip future teachers with the knowledge needed to design and interpret assessments, supporting what Pastore and Andrade (2019) describe as the foundational “knowledge-oriented” dimension of teacher assessment literacy (TAL)—the ability to understand and apply psychometric principles. However, as Pastore and Andrade (2019) argue, an overemphasis on this technical dimension “limits teachers’ ability to navigate the ethical complexities of real classrooms,” reducing assessment to a mechanistic practice that overlooks its potential to reinforce existing social hierarchies today.

This technical emphasis often sidelines the ethical, social, and political dimensions of assessment, sustaining a view of evaluation as neutral measurement rather than a value-laden practice capable of either reinforcing or disrupting power imbalances. In an era shaped by accountability-driven reforms, where standardized testing dominates curricula, pre-service teachers frequently internalize conceptions of fairness as mere uniformity—treating all students “the same” despite diverse backgrounds—and objectivity as detached from cultural or power-laden contexts, a stance Rasooli et al. (2023) critique as “a myth that obscures how procedural fairness often masks substantive injustice.” Critical pedagogy, as articulated by Freire (1970), challenges this by positioning education, including assessment, as a liberatory process

that interrogates oppression and fosters dialogue. Applied here, it reimagines assessment not as a banking model that deposits “correct” knowledge but as problem-posing praxis, where learners co-construct meaning and confront inequities—a transformative shift that Giroux (2011, as cited in Finefter-Rosenbluh et al., 2023) portrays as vital for “democratizing the classroom against neoliberal domestication.”

Recent scholarships highlight this gap but often stop short of offering actionable critique. Although TAL models have broadened to encompass process- and product-oriented competencies (Herppich et al., 2018), empirical studies show that pre-service teachers’ assessment conceptions remain grounded in compliance, with little movement toward equity unless such development is deliberately scaffolded—raising questions about why this scaffolding remains the exception rather than the norm (Xu & He, 2019; Doyle et al., 2024). In the Philippine context, CHED-aligned programs such as those at Xavier University–Ateneo de Cagayan reflect global patterns, preparing Bachelor of Elementary Education (BEED) and Bachelor of Secondary Education (BSED) students for high-stakes environments yet seldom encouraging examination of whose standards—colonial, neoliberal, or localized—define “success,” a silence that Oo et al. (2022) attribute to “curricular inertia favoring accountability over agency.” This oversight becomes especially urgent and increasingly amid post-pandemic demands for inclusive practice, where assessment inequities intensify disadvantages for marginalized learners, as Khasawneh and Khasawneh (2023) caution: “Without critical lenses, technical tools become instruments of exclusion, widening gaps under the banner of objectivity.”

## *1.2 Theoretical and Conceptual Framework*

### *1.2.1 Critical Pedagogy*

Critical pedagogy emerges as a radical counter-narrative to traditional education, viewing it not as a tool for domestication but as a liberatory force that reveals and challenges oppressive structures, a perspective that urges teachers to examine assessment’s role in such systems. At its core, Freire’s (1970) seminal work contrasts the banking model, where teachers deposit knowledge into passive recipients, with problem-posing education, which promotes dialogue and conscientization, the awakening to one’s role in sustaining or resisting injustice today. This duality is not merely theoretical; as hooks (1994, as cited in Finefter-Rosenbluh et al., 2023) insists, engaged pedagogy requires vulnerability and love to foster true transformation, urging educators to move beyond transmission toward co-creation. Giroux (2011, as cited in Charteris and Smardon, 2019) extends this by framing pedagogy as public intellectualism, where assessment becomes a site for cultural politics, critiquing how standardized metrics support neoliberal agendas that commodify learning and silence marginalized epistemologies.

In the context of teacher education, this framework critiques the uncritical embrace of accountability cultures, which Giroux (2011) describes as authoritarian populism that undermines democratic classrooms. Yet its application to assessment remains insufficiently examined. Why do pre-service programs continue to rely on technical rituals that mirror banking, when problem-posing could reimagine grading as praxis, cycles of reflection and action that empower both teacher and student, as Mayes et al. (2021) argue? Freire’s (1970) call for reading the world therefore anchors this study, urging a shift from passive test-taking to active interrogation of whose realities assessments affirm, a move Finefter-Rosenbluh et al. (2023) praise for its capacity to humanize evaluation.

### *1.2.2 Critical Assessment Theory*

Critical Assessment Theory questions the idea that assessments are neutral, arguing that tests and grades are not objective tools but places where cultural beliefs and values are built in and often strengthened. This view encourages teachers to look more closely at why the field has long relied on psychometrics without examining its limits. Building on Shepard’s (2018, as cited in Pastore, 2023) point that assessment is a moral act, this theory calls for going beyond validity and reliability as narrow technical goals and instead promoting ethical fairness that directly addresses cultural bias. Herppich et al. (2018) offer a competence-based model that includes knowledge (what to assess), process (how to do it), and product (fair results), but they warn that without a critical lens, such models may keep existing power gaps in diverse classrooms. This concern is also seen in Yan and Pastore’s (2022) scale for formative literacy, which shows how teachers’ technical confidence can hide ethical blind spots.

This theoretical strand views assessment as a social practice rather than a separate act of measurement. Brookhart (2013, as cited in Doyle et al., 2024) notes that grading involves interpretation, but critical scholars like Giraldo (2021) go further by showing how language assessments, for example, favor Western norms in non-English settings and keep colonial patterns in place. In Philippine teacher education, where CHED’s focus on objective tests reflects global trends in standardization, this theory exposes a troubling issue. Tools meant to promote fairness can actually increase unfairness, as Khasawneh and Khasawneh (2023) argue, stating that bias removal requires not only finding bias but also breaking down the power built into test design. Thus, Critical Assessment Theory guides this study by cutting through the belief in neutrality and showing how assessment supports cultural patterns, encouraging a shift toward justice-based literacies that Pastore (2023) sees as vital for sustainable teacher agency.

### 1.2.3 Fairness, Power, and Voice as Conceptual Anchors

At the center of this framework are three connected anchors fairness, power, and voice that put critical pedagogy and assessment theory into action, turning critique into clear lenses for examining pre-service beliefs and raising questions about whether current practices support all learners or mainly the advantaged. Fairness goes beyond equality, calling for justice that recognizes and responds to diversity, a view Rasooli et al. (2023) describe as contextual equity while critiquing procedural sameness as claim that hides the harms. Power highlights the hidden authority in assessment and asks who defines knowledge, the teacher, the state, or colonial influence, a question Looney et al. (2018) call assessment identity, warning that teacher control can turn assessment into surveillance rather than support that may harm learners. Voice, the anchor, stresses learners' inclusion in setting success criteria and challenges calling for agency, as Charteris and Smardon (2019) note when they warn that without structural change student voice becomes performative and silencing the very groups it aims to support. Conner et al. (2024) expand this by linking voice practices to engagement outcomes and questioning why the field praises agency in theory while assessments often quiet it in practice. These anchors shape the analysis by showing how assessment raises ethical concerns, as Varier et al. (2024) explain in their equity orientation model, urging the study to move beyond description and examine how assessment structures support or challenge oppression in teacher education programs.

Table 1. Analytical Anchors of the Study: Fairness, Power, and Voice

Concept	Description
Fairness	Goes beyond equal treatment to emphasize justice, contextual sensitivity, and recognition of learner diversity. Focuses on how systemic biases in assessment design and interpretation must be surfaced and addressed (Rasooli et al., 2023).
Power	Examines who defines legitimate knowledge, sets standards, and controls evaluative authority. Highlights how assessment can reproduce disciplinary mechanisms unless teachers consciously redistribute power (Looney et al., 2018).
Voice	Prioritizes learners' active participation in shaping criteria, judgments, and definitions of success. Moves from symbolic inclusion to genuine agency in assessment processes (Charteris & Smardon, 2019; Conner et al., 2024).

Table 1 presents the three conceptual anchors that frame the study—Fairness, Power, and Voice. These anchors reconceptualize assessment through ethical and sociocultural lenses rather than technical procedures. Fairness is expanded from equal treatment to justice-oriented practices that acknowledge diversity and confront systemic biases. Power interrogates who defines knowledge, who sets standards, and how teachers either reproduce or redistribute authority through assessment. Voice underscores learners' meaningful participation in shaping evaluative criteria, shifting from tokenistic consultation toward genuine agency.

### 1.2.4 Critical Assessment Literacy (Proposed Integrative Model)

Synthesizing these ideas, the proposed Critical Assessment Literacy (CAL) model reframes Teacher Assessment Literacy as a dynamic and layered practice. It moves beyond small improvements and instead calls for a full shift in how assessment is taught and understood. This model argues that technical skills must lead to ethical awareness, challenging the belief that separate, fragmented literacies are enough to achieve justice (Pastore & Andrade, 2019). Technical Literacy forms the foundation by ensuring teachers can design, use, and interpret assessments. Yet Xu et al. (2024) question its limits, showing that technical autonomy without critical reflection can turn assessment tools into sources of exclusion. Ethical Literacy forms the next layer by strengthening teachers' ability to identify bias and consider issues of equity and justice. Khasawneh and Khasawneh (2023) describe this as essential, although it is often overlooked in programs that prioritize numbers and performance indicators over moral responsibility.

Dialogic Literacy emphasizes co-assessment and collaborative meaning-making, reflecting Finefter-Rosenbluh and Berry's (2023) idea that individual processes should become shared and participatory. It challenges the one-way nature of grading by introducing multiple voices, which Holquist et al. (2023) link to distributed leadership. At the highest level, Transformative Literacy sees assessment as a tool for empowerment and social change. Yan (2021) cautions that without this vision, literacy stays compliant rather than revolutionary. The model guides the research questions by linking evolving conceptions—for example, moving from fairness as sameness to dialogic equity—to its layers. This approach informs thematic coding and reveals why current Teacher Assessment Literacy often falls short: it captures competence but rarely fosters critical awareness or conscientization (Braun & Clarke, 2006; Freire, 1970).

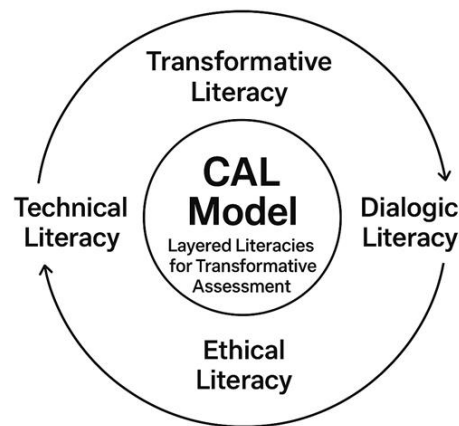


Figure 1. CAL Model—Layered Literacies for Transformative Assessment

The CAL Model is represented as a cyclical diagram with four layers. At the base is Technical Literacy, which covers skills in designing and interpreting assessments. Above this sits Ethical Literacy, focusing on recognizing bias and promoting equity. Dialogic Literacy occupies the next layer, emphasizing co-assessment and collaborative meaning-making, while Transformative Literacy forms the apex, highlighting empowerment and social change. Bidirectional arrows connect all layers, illustrating the cycles of Freirean praxis. In critically evaluating its own design, CAL raises important questions: Can a model developed in a Philippine Jesuit context be applied globally without losing its decolonial focus, or does it risk being absorbed as another Western framework? (Estaji, 2024).

### 1.3 Problem Statement

Although assessment is central to teacher preparation, many pre-service teachers begin their careers without critical understanding of power, fairness, and voice in evaluation. This gap reflects a systemic issue that reinforces teacher authority as gatekeeping, limits student agency, and sustains inequities often ignored in program design (Looney et al., 2018; Varier et al., 2024). In courses focused on technical skills, fairness is often reduced to uniform procedures, hiding cultural assumptions that silence non-dominant voices and cast “failure” as an individual shortcoming rather than a reflection of systemic barriers (Lutovac & Flores, 2021; Charteris & Thomas, 2016).

Empirical studies show that deficit-focused views of assessment limit transformation and reveal ethical blind spots in Teacher Assessment Literacy (Lutovac & Flores, 2021). Efforts to integrate ethics into TAL courses remain largely unmet, even as biases continue in both global and local contexts (Estaji, 2024; Tsagari & Armostis, 2025). In the Philippines, CHED CMO’s focus on psychometrics overlooks the ideological dimensions of assessment, producing teachers who are technically competent but ethically underprepared (Restrepo Bolívar, 2020). These gaps constrain teacher identity and student engagement, maintaining hierarchical power structures (Conner et al., 2022; Holquist et al., 2023).

This study investigates third-year pre-service teachers’ understanding of power, fairness, and voice in assessment, and how these conceptions change through critical, dialogic interventions in a foundational course at Xavier University–Ateneo de Cagayan. Using critical action research, the study promotes assessment as participatory and justice-oriented, demonstrating how student voice can go beyond token inclusion (Santos et al., 2024; Finefter-Rosenbluh et al., 2023). It also contributes to the development of Critical Assessment Literacy (CAL) for teacher education, challenging colonial legacies, reflecting Jesuit values of *cura personalis*, and supporting a decolonized approach to pedagogy (Pastore, 2023; Brown et al., 2024).

#### 1.3.1 Research Questions:

1. How do pre-service teachers define and perceive fairness and justice in assessment?
2. What notions of power and authority are embedded in their beliefs?
3. How do they perceive student voice and agency in assessment?
4. How does participation in a critical pedagogy-informed course influence these conceptions?

## 2. Method

### 2.1 Research Paradigm

This study uses a critical qualitative inquiry approach grounded in Critical Pedagogy, seeing knowledge as co-constructed through praxis aimed at social change. Moving away from positivist detachment, the researcher acts as both participant and provocateur, examining power relations within the study (Freire, 1970). Critical approaches in evaluation reveal tensions between external requirements and internal autonomy, a dynamic especially relevant in CHED-aligned Philippine contexts (Mouraz et al., 2019). At the same time, embracing subjectivity can introduce researcher bias if not carefully managed—a “double-edged sword of practitioner research” (Finefer-Rosenbluh et al., 2023). This paradigm thus serves as both guide and analytical tool, allowing the study to describe pre-service teachers’ conceptions while promoting their development toward justice-focused assessment practices.

### 2.2 Research Design

Using Critical Action Research (CAR), the study follows iterative cycles of planning, acting, observing, and reflecting within the researcher’s Assessment of Learning 1 course at Xavier University–Ateneo de Cagayan. CAR’s participatory and context-specific design allows a close look at how technical routines, such as constructing tables of specifications, can evolve into ethical and reflective practices (Beek et al., 2019). Recognizing the dual role of instructor and researcher, reflexive strategies were employed to avoid bias toward “success” narratives (Powell & Bodur, 2019). The cycles included piloting instruments before the semester, conducting mid-unit interventions, and weekly reflections, turning the course into a living laboratory for developing Critical Assessment Literacy (CAL).

### 2.3 Context and Participants

The study took place at Xavier University–Ateneo de Cagayan, a Jesuit institution in the Philippines, within Assessment of Learning 1, a CHED-mandated third-year course focused on psychometric rigor but lacking critical or ideological perspectives (Oo et al., 2022). Fifty voluntary participants came from diverse programs: BEED (32%,  $n=16$ ), BSED (58%,  $n=29$ ), BSNEDE (6%,  $n=3$ ), and BECED (2%,  $n=1$ ), divided between sections EDA and EDB. The cohort was 55% female, and 30% had prior fieldwork experience. This diversity reflected a microcosm of Philippine teacher education, highlighting tensions between CHED’s accountability frameworks and Jesuit ideals of *cura personalis* (Restrepo Bolívar, 2020). Participants were informed of their responsibilities, which included submitting reflective journals, engaging in small-group dialogues, and developing portfolio artifacts as part of the course-integrated learning cycle. Their participation involved no foreseeable physical or psychological risks beyond normal classroom activities. While the study did not provide direct material benefits, participants could expect professional and ethical growth through sustained reflection on fairness and assessment. More broadly, the study aimed to benefit the teacher education community by contributing to the growing discourse on critical assessment literacy in Philippine contexts.

### 2.4 Sampling

Stratified voluntary sampling included 50 participants from BEED, BSED, BSNEDE, and BECED, balancing sections and demographics to ensure thematic saturation (Guest et al., 2006). Recruitment during course orientation achieved full participation, though the researcher’s insider status may have encouraged more compliant responses (Powell & Bodur, 2019).

### 2.5 Data Collection

Data were collected using four purposively designed instruments to capture multiple aspects of reflection and support co-construction of meaning: Voice Vault Reflections (VV-R), Fairness Forum Dialogues (FFD), Praxis Portfolio Pieces (PPP), and the Conscientization Chronicle (CC). These tools were designed to empower participants rather than treat them as subjects, aligning with Yan and Pastore’s (2022) perspective that research should be a collaborative process of sense-making.

The VV-R involved four semi-structured journal entries of roughly 300 words each, completed at set intervals to encourage reflection on fairness, power, and voice after key learning activities. The FFD consisted of eight small-group discussions, each about 60 minutes, conducted mid- and end-semester and audio-recorded with participants’ explicit, time-bound consent. The PPP included pre-, mid-, and post-course artifacts such as rubrics, annotated tasks, and self-assessments. Finally, the CC was the researcher’s ongoing reflexive journal, capturing insights and observations throughout the study.

Participants were reminded that they could withhold or withdraw consent at any time, and that any identifiable data would be removed or deleted upon request. They were informed of their rights under the Data Privacy Act of 2012, including the right to be notified that their data would be collected and used solely for research, the right to object to any changes in approved data use, and the right to access or request non-disclosure of personal information. All

instruments were administered digitally for accessibility and ease of analysis, and all data collection followed privacy and confidentiality protocols in line with the National Ethical Guidelines for Health and Health-Related Research (NEGHR) (Philippine Health Research Ethics Board, 2017).

All identifiable data were anonymized using coded pseudonyms prior to transcription. Digital files were stored in a password-protected university cloud drive accessible only to the principal investigator, while any hard copies were secured in a locked cabinet in the researcher's office. Identifying information will be retained for five years after publication and then permanently deleted. Participants may request access to summarized findings or final reports in writing. Data sharing will be limited to aggregated results; no individual responses or identifiers will be disclosed.

Table 2. Study Timeline for Implementation in Academic Year 2024-2025 (First Semester)

Phase	Activities	Duration
Preparation	Obtaining ethical approval, recruiting participants, piloting instruments	June 2024 (Month 1)
Implementation	Delivering the course with interventions; collecting data via VV-R, FFD, PPP	July–September 2024 (Months 2–4; one semester)
Analysis	Thematic coding, member checking, synthesizing CC reflections	October 2024 (Month 5)
Dissemination	Reporting findings, refining the CAL model, drafting the manuscript	November–December 2024 (Month 6)

As summarized in Table 2, the study progressed over six months across four phases: preparation (ethical approval, recruitment, and instrument piloting in Month 1), implementation (course delivery and data collection during Months 2–4), analysis (coding and member checking in Month 5), and dissemination (reporting of findings and manuscript development in Month 6).

## 2.6 Intervention

Critical Pedagogy was embedded in course tasks to transform technical content into sites of reflection. Activities included co-rubric creation, peer feedback emphasizing empathy, and provocations like “Who decides what’s fair?” alongside Freirean readings. These interventions linked CHED’s technical focus to ethical dimensions, promoting conscientization and adaptive mid-semester adjustments based on FFD insights (Powell & Bodur, 2019; Xu & He, 2019).

## 2.7 Data Analysis

Using Critical Thematic Analysis (Braun & Clarke, 2006), data were coded in NVivo, guided by Freirean motifs (oppression, dialogue, conscientization). Open and axial coding achieved 85% inter-rater reliability, with an audit trail ensuring transparency. Themes were mapped to CAL dimensions and triangulated across data sources to trace conceptual shifts. Reflexivity addressed risks of over-interpretation and cultural nuance in *Filipino* contexts (Restrepo Bolívar, 2020).

## 2.8 Trustworthiness and Ethics

Credibility was reinforced through triangulation, member checking, and thick description (Lincoln & Guba, 1985). Ethical approval was secured from the Xavier Ateneo Research Ethics Board (XAREB) before commencement of participant recruitment and data collection. Participation was voluntary and based on written informed consent, with assurance that withdrawal could occur at any time without penalty or academic repercussion. The informed consent explicitly indicated that there would be no monetary compensation, indemnity, or special benefit for participation, though no foreseeable harm was anticipated. Ethical practice was understood not merely as procedural compliance but as praxis in line with the study’s critical paradigm. Debriefing sessions were conducted at the end of the course to ensure closure and to affirm reciprocal learning between researcher and participants. Findings will be shared with participants and the academic department, contributing to the refinement of the Assessment of Learning 1 curriculum and promoting broader dialogue on justice-oriented assessment practices.

## 2.9 Transferability and Limitations

Thick descriptions and contextual detail support resonance beyond the site while acknowledging cultural distinctiveness (Ye, 2022). Limitations include single-site focus, dual-role bias, and reliance on self-report data. Future research may extend through mixed methods or longitudinal designs tracking CAL development into practicum contexts (Rogers et al., 2022).

## 3. Findings

In the Assessment of Learning 1 course at Xavier University–Ateneo de Cagayan, CHED’s structured requirements, such as the Table of Specifications, intersected with the realities of classroom practice. Data from the instruments—VV-R reflections, PPP artifacts, FFD focus group discussions, and CC researcher notes—revealed a

gradual awakening among pre-service teachers. This process was dynamic rather than linear, with both subtle insights and notable turning points. Drawing on 60 VV-R entries, 150 PPP artifacts, 16 hours of FFD transcripts, and 10 CC reflections, the study portrayed Critical Assessment Literacy (CAL) as an evolving practice, grounded in technical skill and guided by ethical reflection. Consistent with Freire's (1970) notion of praxis, moments of tension and questioning fostered deeper awareness of fairness, power, and voice in assessment.

### 3.1 From Sameness to Fairness

Initial reflections indicated that most participants equated fairness with uniformity and procedural consistency. In early VV-R entries, fairness was described as giving all students the same test or rubric. For example, PT-01, a BEED student, wrote, "*Fairness simply meant giving everyone the same test.*" About 70% of initial codes reflected this perspective, viewing objectivity as the main indicator of fairness. Similarly, PPP baseline artifacts emphasized technical balance and completeness. PT-02 noted, "*Kung complete ug ma-balance, fair na*" (If it's complete and balanced, then it's fair). Participants' self-ratings for equity averaged 3.5, reflecting limited recognition of contextual or situational factors in defining fairness.

During midterm FFD sessions, small shifts in understanding began to emerge. One BSED participant observed, "*Fairness isn't one-size-fits-all,*" although the group often reverted to familiar ideas of reliability and uniformity. Power remained mostly unexamined, evident but unnamed in teachers' control over classroom structures. For instance, PT-03 wrote, "*No exemption for special needs,*" assuming that equal treatment guaranteed fairness. In contrast, the researcher's CC journal questioned this assumption: "*In Cagayan's multilingual classrooms, whose language bears the burden?*" This reflection marked the beginning of more critical thinking about how fairness, if unexamined, can unintentionally reinforce linguistic and cultural biases.

Table 3. Dominant Baseline Themes in Pre-Service Teachers' Conceptions of Assessment

Baseline Theme	Prevalence (% Codes)	Cross-Instrument Echo
Fairness as Sameness	70%	VV-R: " <i>Pareha tanan</i> " (PT-01); PPP: rigid TOS artifacts (PT-02); FFD: uniformity debate (G2); CC: researcher noted "clarity" bias
Power as Neutral Authority	55%	VV-R: teacher as "judge" (PT-03); PPP: unadapted rubrics (PT-04); FFD: syllabus dominance (G3); CC: unnamed hierarchies

The table summarizes participants' initial conceptions of fairness and power at the start of the study, showing both their prevalence in the coded data and their qualitative echoes across the four instruments. It illustrates how technical neutrality dominated understanding before the interventions, shaping early thinking and framing subsequent shifts in perspective.

### 3.2 Shifting Towards Equity

When interventions such as co-rubric workshops and guided validity checks were introduced, participants began to interrogate their earlier assumptions. Midterm VV-R entries signaled this shift, with PT-05 noting, "*Objectivity is not neutral if the standards privilege certain experiences.*" More than half of the coded reflections (55%) now linked fairness to cultural and contextual awareness rather than to procedural balance alone. This marked a movement from technical compliance to a more critically attuned understanding of how assessment criteria can reproduce or mitigate inequities.

PPP revisions showed similar growth. PT-06 added a learner feedback section to her assessment task and explained, "*Fairness para nako karon kay giving voice*" (For me, fairness now means giving voice). Her self-rated equity score increased from 3.5 to 4.1—a 40% rise. By the final FFD sessions, participants were collectively redefining fairness. One group concluded, "*Fairness means giving what is needed, not the same,*" recognizing that test design often reflects teacher bias more than student ability. BEED students connected fairness to *pakig-uban* (relational understanding), while BSED participants examined how language privilege shapes what counts as "valid" assessment.

The idea of power also began to shift. Drawing on hooks (1994), one participant wrote, "*Power isn't bad if used reflectively.*" This view appeared in about 60% of the cross-instrument codes and reframed power not as control but as responsibility. At the same time, the researcher's CC reflection showed an ongoing struggle: "*I favored BSED's logic over BEED's effort; my facilitation held the epistemic high ground.*" This self-critique echoed Rasooli et al. (2023), who argued that procedural fairness can create the illusion of equity while deeper hierarchies remain intact.

### 3.3 Voice and Participation

Voice emerged as a central theme across instruments. Initially, 45% of VV-R entries depicted students as passive test-takers. As interventions unfolded, participants increasingly recognized voice as integral to fairness and engagement.

In one FFD session, a BECED participant reflected, “*Before, students were silent, but when you ask, they give smart suggestions.*” This realization prompted PT-09 to revise her rubric by adding “*reflection corners*” for learners—an intentional move she described as fostering “*voice as ownership.*”

By the end of the course, PPP artifacts and FFD discussions demonstrated a marked increase in participatory perspectives, with 65% of codes emphasizing active student involvement. BEED and BECED participants framed voice through empathy and *pakikipagkapwa* (shared humanity), whereas BSED and BSNEED students connected it to advocacy and inclusion. PT-03 articulated this expanded understanding of equity, writing, “*It’s not fair if there are no accommodations.*” Despite these gains, approximately 20% of post-course reflections continued to portray feedback as optional, indicating lingering tendencies toward tokenism and the persistence of procedural rather than dialogic notions of student voice.

The CC researcher’s Week 12 reflection captured this duality: “*Affective narratives were dismissed as less analytical, but in PT-09’s ‘listen, not explain,’ I heard the real heart of voice. My elitism was the silencer.*” This aligns with Charteris and Smardon’s (2019) warning against performative inclusion in educational settings.

Table 4. Progression of Student Voice Conceptions: From Reactive Margins to Generative Agency

Category	Pre/Mid Prevalence (% of Codes)	Post Prevalence (% of Codes)	Cross-Instrument Resonance
Reactive Margin	45%	20%	VV-R: “ <i>Just take the test</i> ” (PT-03) → FFD: “ <i>Optional comment</i> ” (G7)
Generative Core	25%	65%	PPP: “ <i>Co-revise spaces</i> ” (PT-08); CC: “ <i>Heart of voice</i> ” reflection; FFD: “ <i>Smart suggestions</i> ” (G6)

Table 4 illustrates the increasing recognition of learner voice as central to fairness, with a movement from reactive (compliance-focused) notions toward generative (participatory and empathetic) conceptions. Percentages indicate the proportion of total coded excerpts within each phase.

### 3.4 The Bloom of Praxis

By the final phase, participants demonstrated both conceptual and behavioral transformation. VV-R entries emphasized co-design and collaboration. PPP artifacts, such as PT-04’s child-friendly checklists, showed empathy translated into practice. FFD discussions, including G3’s statement “*Power should build, not break,*” revealed growing collective responsibility. The researcher’s final reflection traced their own development: from questioning linguistic bias in Week 2 to embracing the idea that “*true literacy has heart*” in Week 12. About 75 percent of post-codes indicated a stronger commitment to ethical assessment practices.

Still, challenges persisted. As one group warned, “*Transformative assessment needs both heart and mind,*” participants recognized that systemic constraints, such as CHED requirements, continued to shape their actions. This reminder positioned praxis not as an endpoint but as a continuing journey of self-examination.

### 3.5 Synthesis

Across VV-R reflections, PPP artifacts, FFD discussions, and CC notes, Classroom Assessment Literacy emerged as an evolving network rather than a linear progression. Fairness expanded into equity, power was reframed as reflective stewardship, and voice evolved from silence to shared authorship. In 65 percent of post-course data, transformation was evident. Yet, a quiet uncertainty remained: had the cohort truly achieved equity, or only its surface form?

These findings align with Lutovac and Flores (2021), who argue that assessment reform requires confronting underlying deficits, not just revising procedures. In the postcolonial context of Cagayan de Oro, the call for equity remains unfinished, reminding educators to continually ask: Whose fractures do we mend first?

## 4. Discussion

From the set of findings—where PT-01’s early idea of “*pareha tanan*” (everyone should have the same) slowly shifted toward PT-05’s point that some standards “*privilege certain experiences*”—a clearer picture of learning through practice emerged. The study showed that building Critical Assessment Literacy (CAL) is not a final goal but an ongoing cycle of asking questions, reflecting, and adjusting. In Freire’s (1970) terms, it is a continuous process of becoming more aware and more critical. The shifts seen in ideas about equity (55%), power (60%), and student voice (65%) are not end results but reminders to keep examining why, even with strong training in psychometrics, fairness and equity often stay in the background of assessment work. The mix of *Bisaya* and English in students’ reflections—like G4’s reminder that “*justice starts with empathy*”—also showed how local and institutional views come together. This mix revealed long-standing tensions between relational fairness and strict, uniform procedures, suggesting that meaningful assessment reform needs not only technical skill but also ethical and cultural sensitivity.



#### 4.1 Conceptions as Living Tensions, Not Static States

The shifts in how students understood fairness, power, and voice showed that assessment literacy is a dynamic, relational process rather than a fixed set of technical skills. Fairness moved beyond notions of sameness and equal treatment toward a more nuanced understanding of equity and inclusion. Power, once viewed mainly as control or authority, was reframed as shared responsibility and care. Voice, initially treated as peripheral, emerged as a core element of how fairness is enacted in practice. Traditional assessment tools—tables of specifications, rubrics, and validity checks—were reimagined as spaces for ethical dialogue instead of merely bureaucratic requirements. This transition was captured succinctly by PT-06, who reflected, “*Fairness for me now means giving voice.*”

These findings align with Yan’s (2021) concept of assessment-as-learning, where reflection and dialogue foster both cognitive and ethical development. Participants’ revisions and self-assessments demonstrated that technical proficiency could function as a starting point for deeper moral and contextual awareness. However, the continued presence of neutrality codes in 25 percent of responses shows that some students still equated fairness with objectivity and sameness. This indicates that the shift from technical to ethical assessment literacy is gradual and fragile, requiring sustained opportunities for dialogue, modeling, and guided support.

The shift from fairness-as-sameness to fairness-as-equity observed in this study depended fundamentally on participants’ growing ability to recognize and respond to individual learner differences rather than neutralize them. Pre-service teachers increasingly identified linguistic diversity (e.g., *Bisaya*-dominant homes and code-switching realities), developmental stages (BECED participants designing child-friendly checklists), sensory and ability needs (BSNED students insisting on accommodations for visual, hearing, or motor differences), and socio-economic constraints (e.g., inconsistent internet access or lack of learning materials) as legitimate dimensions that demand tailored assessment practices. Technical instruments previously treated as neutral—TOS weighting, rubrics, and item-analysis statistics—were reimagined as flexible tools for justice: criteria were adjusted, response modalities diversified, success indicators co-negotiated, and feedback personalized. This deliberate tailoring transformed assessment from a uniform process that silently punished difference into an equitable practice that honored it. By naming and accommodating learners’ particularities instead of erasing them, participants operationalized equity in concrete classroom terms, confirming that authentic fairness in diverse Philippine contexts cannot be achieved through procedural objectivity alone; it requires sustained, context-sensitive recognition of each student’s lived reality as the starting point for ethical design (Rasooli et al., 2023; Varier et al., 2024).

The data also revealed important cultural nuances. BEED and BECED participants tended to highlight relational and emotional dimensions of fairness, whereas BSED students emphasized analytical rigor. This contrast reflects Schneider et al.’s (2020) notion of cross-cultural literacy, where multiple epistemologies coexist in productive tension. In multilingual contexts such as Cagayan de Oro, the interplay between English and *Bisaya* further symbolized larger questions about whose language—and by extension, whose knowledge—shapes notions of “fairness.”

#### 4.2 The Contested Cartographies of Power, Fairness, and Voice

The tensions that emerged throughout the study are not weaknesses but important sites of learning. They mark the boundaries where critical assessment literacy is negotiated. Power, fairness, and voice constantly interacted as students and facilitators attempted to balance institutional expectations with ethical reflection. Statements like G5’s “*share it*” demonstrated an emerging understanding of power as stewardship rather than domination. At the same time, CHED’s rigid assessment frameworks often limited how far this sharing could go.

Participants’ reflections in both English and *Bisaya* revealed how cultural and linguistic factors shaped their understanding of fairness. Rasooli et al. (2023) warned that procedural fairness can easily mask structural inequalities, and this was evident in the 20 percent of post-intervention responses that still viewed feedback as optional rather than essential. BECED participants, who focused on child-centered approaches, designed tools that allowed children to participate in evaluating their own work. BSNED participants emphasized inclusion, challenging ableist assumptions within standardized testing. These diverse interpretations illustrate Varier et al.’s (2024) idea of “equity orientation,” where assessment becomes a process of ethical mapping rather than a fixed standard.

The researcher’s own reflections also exposed complicity. In Week 8, the acknowledgment of “hoarded high ground” served as a moment of accountability and self-critique, aligning with Charteris and Smardon’s (2019) caution against performative inclusion. When participants later described students as “co-authors of evidence,” it signaled a growing sense of agency and collective authorship. However, questions remain about whose evidence counts and whose voices continue to be marginalized under postcolonial conditions.

#### 4.3 Theoretical Implications: Spiraling CAL Beyond Traditional TAL

The findings extend Critical Assessment Literacy beyond traditional models of Teacher Assessment Literacy (TAL).

Pastore and Andrade's (2019) framework identified technical, ethical, dialogic, and transformative dimensions. This study revealed how these dimensions spiral together rather than progress in sequence. Technical accuracy becomes a seed for ethical inquiry. Dialogic engagement breathes life into ethical awareness. Transformative reflection opens new horizons for justice-oriented practice. The data also affirm hooks' (1994) idea of "teaching with love," as power and fairness were redefined in relational and affective terms. G5's statement, "*let love guide validity*," captured this synthesis. The blending of postcolonial and Jesuit perspectives within the cohort's reflections deepened this theoretical framing. Power was not simply redistributed but reimagined as care and solidarity.

Yet, these implications also point to challenges. As Estaji (2024) cautions, institutional constraints can limit the transformative potential of critical literacy. CHED's frameworks, while promoting standardization, risk suppressing local ways of knowing. Pastore's (2023) review of global assessment practices similarly calls for culturally grounded interpretations, which this study answers by rooting CAL in the relational ethics of *pakig-uban* (communal togetherness).

#### *4.4 Practical and Broader Implications: Mending Fractures and Charting Horizons*

This study explored how pre-service teachers at Xavier University–Ateneo de Cagayan developed Critical Assessment Literacy (CAL) through reflective, dialogic, and participatory learning. Across several instruments (VV-R reflections, PPP artifacts, FFD discussions, and CC journals), participants' ideas about fairness, power, and voice gradually shifted from technical compliance to ethical awareness. Fairness grew from sameness toward equity. Power came to mean shared responsibility. Voice emerged as an essential part of assessment practice. These changes echo Freire's (1970) idea of *conscientization*: real transformation begins when learners question the systems that shape their experiences. Through co-rubric design, validity probes, and collective reflection, pre-service teachers moved from simply following procedures to taking ownership of how they assess learning. In doing so, they nurtured empathy, accountability, and agency: qualities often missing in conventional assessment.

Practically, the study offers several ways to foster more equitable assessment in teacher education. Co-designed rubrics can become spaces where teachers and students work out shared standards together. Focus group dialogues can serve as moments for building voice and empathy. These findings align with Doyle et al.'s (2024) call for authentic, collaborative assessment, but they also highlight the need to ground these efforts in local languages and cultural values. For Xavier University – Ateneo de Cagayan and other institutions, integrating CAL into assessment courses can help bridge the gap between technical precision and ethical responsibility. Embedding relational and linguistic inclusivity into assessment design also honors the lived realities of Filipino classrooms. More broadly, in a world increasingly shaped by algorithmic and data-driven evaluation (Khasawneh & Khasawneh, 2023), CAL offers a more human-centered alternative. It asks educators to see fairness as dialogue rather than data, and power as responsibility rather than control. In the postcolonial Philippine context, assessment should not only measure learning but also heal historical and cultural fractures. As G4 reminded the group, "empathy starts justice."

In the end, these findings point to praxis as a continuous act of mending and questioning. Critical Assessment Literacy is not an endpoint but a way of being, but a steady effort to teach, listen, and rebuild education with both heart and hope. Through this ongoing work of reflection and renewal, assessment becomes more than evaluation; it becomes an act of care that humanizes both teaching and learning.

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#### **Authors contributions**

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No additional data are available.

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**References**

- Beek, G. J., Zuiker, I., & Zwart, R. C. (2019). Exploring mentors' roles and feedback strategies to analyze the quality of mentoring dialogues. *Teaching and Teacher Education*, 78, 15-27. <https://doi.org/10.1016/j.tate.2018.10.006>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Brown, T. D., Barnes, M., & Finefter-Rosenbluh, I. (2024). Teacher perspectives and experiences of assessment literacy in Victorian junior secondary schools. *Australian Journal of Education*. Advance online publication. <https://doi.org/10.1177/00049441231214022>
- Charteris, J., & Smardon, D. (2019). Student voice in learning: Instrumentalism and tokenism or opportunity for altering the status and positioning of students? *Pedagogy, Culture & Society*, 27(2), 305-323.
- Charteris, J., & Thomas, E. (2016). Uncovering 'unwelcome truths' through student voice: Teacher inquiry into agency and student assessment literacy. *Teaching Education*, 28(2), 1-16. <https://doi.org/10.1080/10476210.2016.1229291>
- Commission on Higher Education. (2017a). *CHED Memorandum Order No. 074-17: Policies, Standards and Guidelines for the Bachelor of Elementary Education (BEEd)* [Memorandum]. Republic of the Philippines
- Commission on Higher Education. (2017b). *CHED Memorandum Order No. 075-17: Policies, Standards and Guidelines for Bachelor of Secondary Education (BSEd)* [Memorandum]. Republic of the Philippines.
- Conner, J., Mitra, D. L., Holquist, S., & Boat, A. (2024). How teachers' student voice practices affect student engagement and achievement: Exploring choice, receptivity, and responsiveness to student voice as moderators. *Journal of Educational Change*, 26, 89-118. <https://doi.org/10.1007/s10833-024-09513-0>
- Conner, J., Posner, M., & Nsowaa, B. (2022). The relationship between student voice and student engagement in urban high schools. *The Urban Review*, 54, 755-774. <https://doi.org/10.1007/s11256-022-00637-2>
- Doyle, A., Donlon, E., Conroy Johnson, M., McDonald, E., & Sexton, P. J. (2024). Re-envisioning pre-service teachers' beliefs and feelings about assessment: The important space of authentic assignments. *European Journal of Teacher Education*. Advance online publication. <https://doi.org/10.1080/02619768.2024.2338854>
- Estaji, M. (2024). Perceived need for a teacher education course on assessment literacy development: Insights from EAP instructors. *Asian-Pacific Journal of Second and Foreign Language Education*, 9, Article 50. <https://doi.org/10.1186/s40862-024-00272-2>
- Finefter-Rosenbluh, I., & Berry, A. (2023). With or without you? Exploring student perception survey assessment data as a teacher-student (un)shared process. *Teachers and Teaching: Theory and Practice*. Advance online publication. <https://doi.org/10.1080/13540602.2023.2236955>
- Finefter-Rosenbluh, I., Berry, A., & Ryan, T. (2023). Acting upon student voice-based teaching assessment initiatives: An account of participatory action research for teacher professional learning. *Journal of Teacher Education*, 74(5), 512-526. <https://doi.org/10.1177/00224871231200278>

- Freire, P. (1970). *Pedagogy of the oppressed*. Herder and Herder.
- Giraldo, F. (2021). Language assessment literacy and teachers' professional development: A review of the literature. *Profile: Issues in Teachers' Professional Development*, 23(2), 265-279. <https://doi.org/10.15446/profile.v23n2.90533>
- Herppich, S., Praetorius, A. K., Förster, N., Glogger-Frey, I., Karst, K., Leutner, D., ... & Südkamp, A. (2018). Teachers' assessment competence: Integrating knowledge-, process-, and product-oriented approaches into a competence-oriented conceptual model. *Teaching and Teacher Education*, 76, 181-193. <https://doi.org/10.1016/j.tate.2017.12.001>
- Holquist, S. E., Mitra, D. L., & Conner, J. (2023). What is student voice anyway? The intersection of student voice practices and shared leadership. *Educational Administration Quarterly*, 59(4), 706-746. <https://doi.org/10.1177/0013161X231178023>
- Khasawneh, Y. J. A., & Khasawneh, M. A. S. (2023). Achieving assessment equity and fairness: Identifying and eliminating bias in assessment tools and practices. *International Journal of Instruction*, 16(3), 579-596. <https://doi.org/10.29333/iji.2023.16331a>
- Looney, A., Cumming, J., van der Kleij, F., & Harris, K. (2018). Reconceptualising the role of teachers as assessors: Teacher assessment identity. *Assessment in Education: Principles, Policy & Practice*, 25(4), 442-467. <https://doi.org/10.1080/0969594X.2016.1268090>
- Lutovac, S., & Flores, M. A. (2021). Conceptions of assessment in pre-service teachers' narratives of students' failure. *Cambridge Journal of Education*, 52(1), 51-67. <https://doi.org/10.1080/0305764X.2021.1935736>
- Mayes, E., Black, R., & Finneran, R. (2021). The possibilities and problematics of student voice for teacher professional learning: Lessons from an evaluation study. *Cambridge Journal of Education*, 51(2), 151-170. <https://doi.org/10.1080/0305764X.2020.1806988>
- Mouraz, A., Leite, C., & Fernandes, P. (2019). Between external influence and autonomy of schools: Effects of external evaluation of schools. *Paidéia*, 29, Article e2922. <https://doi.org/10.1590/1982-4327e2922>
- Oo, C. Z., Alonzo, D., & Asih, R. (2022). Acquisition of teacher assessment literacy by pre-service teachers: A review of practices and program designs. *Issues in Educational Research*, 32(1). <https://www.iier.org.au/iier32/oo.pdf>
- Pastore, S. (2023). Teacher assessment literacy: A systematic review. *Frontiers in Education*, 8, Article 1217167. <https://doi.org/10.3389/feduc.2023.1217167>
- Pastore, S., & Andrade, H. L. (2019). Teacher assessment literacy: A three-dimensional model. *Teaching and Teacher Education*, 84, 128-138. <https://doi.org/10.1016/j.tate.2019.05.003>
- Philippine Health Research Ethics Board. (2017). *National Ethical Guidelines for Health and Health-Related Research 2017 (NEGHHR 2017)*. Department of Science and Technology – Philippine Council for Health Research and Development.
- Powell, C. G., & Bodur, Y. (2019). Teachers' perceptions of an online professional development experience: Implications for a design and implementation framework. *Teaching and Teacher Education*, 77, 19-30. <https://doi.org/10.1016/j.tate.2018.09.004>
- Rasooli, A., Rasegh, A., Zandi, H., & Firoozi, T. (2023). Teachers' conceptions of fairness in classroom assessment: An empirical study. *Journal of Teacher Education*, 74(3), 260-273. <https://doi.org/10.1177/00224871221130742>
- Restrepo Bolívar, E. M. (2020). Monitoring preservice teachers' language assessment literacy development through journal writing. *Malaysian Journal of ELT Research*, 17(1), 38-52. [https://melta.org.my/journals/MAJER/downloads/majer17\\_01\\_03.pdf](https://melta.org.my/journals/MAJER/downloads/majer17_01_03.pdf)
- Rogers, A. P., Mitescu Reagan, E., & Ward, C. (2022). Preservice teacher performance assessment and novice teacher assessment literacy. *Teaching Education*, 33(2), 175-193. <https://doi.org/10.1080/10476210.2020.1840544>
- Santos, I. M., Amatullah, T., Agbenyega, J., & de Souza, D. N. (2024). The influence of student voice on teacher professional learning: A systematic literature review. *Review of Education*, 12(3), Article e70014. <https://doi.org/10.1002/rev3.70014>
- Schneider, C., DeLuca, C., Pozas, M., & Coombs, A. (2020). Linking personality to teachers' literacy in classroom assessment: A cross-cultural study. *Educational Research and Evaluation*, 26(1-2), 53-74. <https://doi.org/10.1080/13803611.2021.1902354>
- Tsagari, D., & Armostis, S. (2025). Contextualizing language assessment literacy: A comparative study of teacher

- beliefs, practices, and training needs in Norway and Cyprus. *Education Sciences*, 15(7), Article 927. <https://doi.org/10.3390/educsci15070927>
- Varier, D., Powell, M. G., Dodman, S., View, J. L., & DeMulder, E. (2024). The relationship between teachers' equity orientation and instructional usefulness of assessments of and for learning. *Education Sciences*, 14(11), 1183. <https://doi.org/10.3390/educsci14111183>
- Xu, J., Zhang, S., & Chen, H. (2024). The impact of teacher autonomy support on students' assessment literacy: The chain mediating effects of self-efficacy and critical reflection. *Heliyon*, 10(14), e34616. <https://doi.org/10.1016/j.heliyon.2024.e34616>
- Xu, Y., & He, L. (2019). How pre-service teachers' conceptions of assessment change over practicum: Implications for teacher assessment literacy. *Frontiers in Education*, 4, Article 145. <https://doi.org/10.3389/educ.2019.00145>
- Yan, Z. (2021). Assessment-as-learning in classrooms: The challenges and professional development. *Journal of Education for Teaching*, 47(3), 293-295. <https://doi.org/10.1080/02607476.2021.1885972>
- Yan, Z., & Pastore, S. (2022). Are teachers literate in formative assessment? The development and validation of the Teacher Formative Assessment Literacy Scale. *Studies in Educational Evaluation*, 74, Article 101183. <https://doi.org/10.1016/j.stueduc.2022.101183>
- Ye, W. (2022). Urban public-school teachers' assessment literacy in China's Zhengzhou city. *Education 3-13*. Advance online publication. <https://doi.org/10.1080/03004279.2021.2025128>