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Computers or Braille in University Examinations for Students with Visual Impairment in Anglophone Cameroon: A Multi-Criteria Policy Comparison

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Abstract

In Cameroon's anglophone universities, students with visual impairment have traditionally sat examinations in braille or through dictation to a human scribe. A growing number of these students now ask to type their answers instead, using a computer with screen-reading software, but university authorities have not made this a standard, written accommodation. This article compares computer-based delivery with non-computer methods (braille transcription and amanuensis dictation) across nine criteria identified from the literature on assistive technology, testing standards, and examination policy: transcription accuracy, mathematical and scientific notation, writing speed and fatigue, cost, security and infrastructure reliability, institutional workload, learner independence, preservation of braille literacy, and fit with post-graduation employment. Each criterion is rated qualitatively (favourable, mixed, or unfavourable) against documented practice in Cameroon and comparable African and international settings, as a policy analysis rather than a systematic review, since no primary survey of students or examiners was conducted. The comparison shows no single method winning outright: computers generally perform better on accuracy of plain text, speed, independence, and employability, while non-computer methods retain real advantages where power or connectivity is unreliable, where mathematical notation is involved, and for preserving braille literacy. Rather than treating this as a vote count, the article argues that the criteria are not equally important to every student or subject, and recommends that universities adopt a documented, individually negotiated choice of examination mode, backed by clear security protocols and continued investment in braille teaching, through a phased institutional roadmap.

Keywords: visual impairment, assistive technology, computer-based examinations, braille, higher education, Cameroon, disability accommodation

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Introduction

This article uses *visual impairment* as the umbrella term covering both blindness (little or no useful vision) and low vision or partial sight (some residual vision that may be enhanced with magnification or contrast adjustment). The distinction matters for examination policy: a blind candidate's realistic choice is generally between braille-based methods and screen-reading software, whereas a partially sighted candidate may instead use a computer with screen magnification, a third option folded into "computer-based" delivery throughout this article but worth naming separately where it changes the analysis. The article also distinguishes two non-computer accommodations that are often, and problematically, treated as one: braille writing, where the candidate writes independently in braille and a sighted transcriber later converts the script into print for a lecturer who cannot read braille; and amanuensis dictation, where the candidate instead speaks answers aloud to a scribe who writes them down. These differ in error risk, in how much independence the candidate retains, and in how long they take, and the comparison below flags where this distinction matters, while treating them together, as "non-computer methods," for the comparison's main criteria given the scope of this analysis.

Cameroon signed the United Nations Convention on the Rights of Persons with Disabilities in 2008 and ratified it only in December 2021, having passed its own domestic disability law, Law No. 2010/002, in the intervening period. Over roughly the same two decades, anglophone universities such as the University of Buea and the University of Bamenda have seen more enrolled students with visual impairment, though no comprehensive national enrolment statistics are publicly available to quantify this trend precisely or to establish a causal link to any single piece of legislation. These universities have responded by setting up disability support offices, training a small number of braille transcribers, and permitting amanuensis dictation during examinations. "Anglophone universities" here means institutions using English as the medium of instruction, such as Buea and Bamenda; this scope is not arbitrary, since English-medium institutions use Unified English Braille, which differs from the French braille code used in Cameroon's francophone universities, making the assistive-technology and transcription environment genuinely distinct between the two subsystems.

These accommodations were designed for an era when braille slates, Perkins braillers, and paper were the only realistic tools for a blind or partially sighted student. Screen-reading software such as JAWS and NVDA, combined with more affordable laptops, has since made it possible for a visually impaired student to type an answer directly, listen to it read back, correct it, and submit a printed or digital transcript without a transcriber or scribe as an intermediary. Some students who have picked up computer skills independently, through family support, a specialised school, or private training, arrive at university already more confident typing than brailling, even though Cameroon's own secondary-level examinations have not offered a computer-based option. For these students, a university's insistence on non-computer methods can function less as an accommodation and more as an added burden, introducing delay and transcription error outside their control.

It is also necessary to note that Cameroon's North-West and South-West Regions, where the University of Buea and the University of Bamenda are located, have experienced an armed conflict since 2016 that has caused school closures and significant disruption to education in the anglophone subsystem. This conflict bears directly on the infrastructure criterion examined below: unreliable electricity and internet access are not hypothetical concerns in this setting but a lived constraint that any examination-technology policy must take seriously.

University authorities, in turn, have been cautious about approving computers for examinations. Their hesitation reflects genuine institutional concerns: the possibility that a laptop could be used to access stored notes, the cost of software and equipment, the unfamiliarity of invigilators with assistive technology, and

the precedent a formal policy might set. In practice, computer use is currently granted informally, at individual lecturers' discretion, with no shared rules on software, invigilation, data security, or grading equivalence. This article treats that unresolved situation as a policy question deserving systematic comparison, asking what is gained and lost when a university chooses computer-based delivery over non-computer methods for a visually impaired student, and what defensible policy follows from that comparison.

Theoretical Framing

The underlying concern here is what testing scholars call construct-irrelevant variance: the risk that a student's score reflects something other than the construct an examination is meant to measure, in this case the adequacy of the accommodation rather than subject knowledge (AERA, APA, & NCME, 2014). Article 24 of the UN Convention on the Rights of Persons with Disabilities requires reasonable accommodation in education without specifying a particular technology, which is consistent with a framework in which the appropriate accommodation depends on the individual and the task rather than on institutional convenience. This framing is also supported by recent synthesis work: a meta-ethnographic review of 42 qualitative studies and 868 student participants found that assessment, more than teaching itself, is commonly experienced by disabled students as a primary barrier to inclusion in higher education (Nieminen, Moriña, & Biagiotti, 2024), underlining why examination mode specifically, not accommodation in general, deserves close attention in a setting like Cameroon's anglophone universities.

Statement of the Problem

Some visually impaired students at Cameroon's anglophone universities prefer to sit examinations on a computer with screen-reading or magnification software rather than through braille or amanuensis dictation, citing speed, independence in checking their own work, and alignment with the computer skills the labour market expects of them. University authorities have not made computer-based examinations a standard, written accommodation; where permitted, it is left to individual lecturers, with no shared rules on software, invigilation, data security, or grading equivalence. This produces three connected problems. First, it treats visually impaired students unequally within the same university, since the examination mode available to a student may depend on which lecturer they are assigned rather than on documented need. Second, it leaves the university exposed to legitimate but unaddressed concerns about malpractice, since an ad hoc laptop arrangement without a security protocol is harder to defend than either a fully supervised non-computer examination or a properly configured, locked-down computer examination. Third, based on a review of publicly available institutional policy documents, regulations, and theses, no published account was found of an anglophone Cameroonian university systematically weighing the costs and benefits of computer-based examinations against non-computer methods; the absence of such a comparison, rather than a simple disagreement over preference, is the problem this article addresses.

Research Objective

The objective is to weigh computer-based examination delivery against non-computer methods for visually impaired students in anglophone Cameroonian universities, across the criteria that matter most to students, examiners, and administrators, to produce an evidence-informed policy recommendation. The specific objectives are to:

1. Identify, from the literature on assistive technology, testing standards, and examination policy, the criteria by which the two delivery modes can be fairly compared.

2. Assess each mode against those criteria, drawing on documented practice in Cameroon and comparable

settings.

3. Determine whether the evidence favours one mode uniformly or supports a differentiated, student-specific policy.

4. Propose a phased institutional roadmap for moving from informal tolerance to a codified policy.

Research Questions

This analysis is guided by three questions: (a) What do the assistive-technology and examination-policy literatures report about the advantages and disadvantages of computer-based delivery relative to non-computer methods for visually impaired candidates? (b) How do these advantages and disadvantages apply within the specific resource, staffing, and regulatory constraints of anglophone Cameroonian universities, including their documented infrastructure and security context? (c) What institutional policy would let universities capture the benefits of computer-based examinations while managing the risks that currently motivate administrative caution? A question about students' own stated preferences is deliberately not included among the research questions, since answering it properly would require a primary survey, which falls outside the document-based scope of this study and is flagged below as a direction for future research.

Significance of the Study

This comparison is intended to give disability support offices and examination boards in anglophone Cameroonian universities a structured basis for policy, rather than leaving each department to improvise. It also extends a wider literature on disability and higher education assessment, still dominated by examples from better-resourced systems, into a Cameroon-specific case shaped by its own legal, linguistic, and security context.

Related Literature

Assistive Technology and Examination Access

Research on assistive technology links the shift from tactile to screen-reading software to meaningful changes in how blind and partially sighted learners are assessed. A frequently cited mechanism is that non-computer methods require at least one, and often two, points of transcription: the candidate writes in braille (or dictates to a scribe), and a sighted transcriber converts the result into print for a lecturer who cannot read braille directly; a second round, a verification check in which the print transcript is compared against the original braille or dictation for fidelity, is also common practice where resources allow, though it is not universal. Each additional step is a further opportunity for error, particularly for subjects with heavy notation. Access and literacy research on visual impairment has long emphasised that reducing unnecessary intermediary steps, while also directly teaching the "access skills" a technology requires, produces the most durable gains for learners (Douglas et al., 2011). Computer-based delivery removes the re-transcription step for standard text: the candidate types directly, and the document a lecturer grades is the one the candidate produced.

This advantage does not extend evenly across subjects. Mathematical and scientific notation is a genuine point of difficulty for braille transcription, since braille contractions for formulae can be ambiguous even to experienced transcribers, but current mainstream screen-reading software also handles specialised notation (MathML, UEB Nemeth code) imperfectly. Treated as its own criterion rather than folded into "transcription

accuracy" generally, mathematical and scientific notation is therefore not a straightforward advantage for computers; it is a criterion where non-computer methods supported by a braille mathematics code may currently serve some STEM subjects better, pending further development of accessible notation software.

Braille literacy itself is a separate, important consideration. Braille skill, rather than reliance on audio alone, is associated in the literature with higher rates of employment and education among blind adults, because braille builds spelling, punctuation, and structural awareness of text that listening does not replicate (National Federation of the Blind, 2009; Ryles, 1996). A concern raised in this literature is that a wholesale institutional shift toward computers in examinations could, over time, weaken braille literacy among younger cohorts if students come to see computer use in examinations as a signal that braille mastery is no longer necessary. This concern is salient in Cameroon, where braille literacy among visually impaired learners is already constrained by a shortage of trained braille teachers and transcription materials, and it is treated as its own criterion rather than left only as a caveat.

Security, Cost, and Infrastructure

Examination-security scholarship distinguishes risks intrinsic to a technology from risks that arise from inadequate implementation. An offline computer examination, runs only an approved word processor with screen-reading software, and is checked by a trained invigilator need not be more vulnerable to malpractice than a paper script, though this claim depends entirely on that configuration being in place; an informally supervised laptop with no such protocol is a different and genuine risk. Non-computer methods carry a different risk profile: a transcriber or amanuensis who reads and handles the candidate's answers during the process could, in principle, alter what was recorded, whether by accident or otherwise, a risk that does not arise when no third party touches the candidate's typed text. Computer-based delivery is not risk-free in return: tampering or loss can occur at the printing or file-transfer stage, so the comparison is better understood as two different risk profiles requiring different safeguards than as one method being simply safer than the other.

Infrastructure reliability is a further, Cameroon-specific dimension of this same criterion. Non-computer methods do not depend on a continuous power supply, and braille produced by hand remains legible without any device at all. A computer examination depends on a charged, working laptop, and, if any part of the process assumes network access, on a stable connection, both of which are less dependable in regions affected by the security disruption described above. This is a genuine point in favour of non-computer methods where power or connectivity cannot be guaranteed, and it should inform, rather than be ignored by, any institutional policy.

Cost is a further concern. Software, dedicated laptops, and staff training all cost money, and under-resourced universities reasonably ask who will pay. Two considerations are relevant here. Free, open-source screen readers, chiefly NVDA, have substantially narrowed the cost gap with licensed products since NVDA's initial development in 2006; by 2019, WebAIM's Screen Reader User Survey found NVDA essentially tied with JAWS as users' primary screen reader (40.6% versus 40.1%), with free built-in options such as Windows Narrator and VoiceOver also available (WebAIM, 2019). Second, a laptop and software represent a largely fixed, reusable capital cost once procured, serving a student across multiple sittings and, with maintenance, later students too, whereas braille transcription and amanuensis arrangements carry a recurring, per-sitting labour cost for as long as a student remains enrolled. This capital cost is distinct from the ongoing administrative costs of running a computer-based examination system, such as invigilator training and IT support on examination day, which recur regardless of how many sittings the hardware itself serves; the two should not be conflated.

The Situation in Cameroon and the Wider Region

Within Cameroon, the GCE Board has not permitted visually impaired candidates to sit Ordinary or Advanced Level examinations on computers; braille and amanuensis dictation remain the only recognised methods even at the secondary level, so Cameroonian universities have no domestic precedent of their own to draw on. Some other African examination bodies, including Kenya's national examinations council and the multinational West African Examinations Council (WAEC, which also serves Nigeria, Ghana, and several other West African states, and is not a Nigerian national body), have begun exploring computer-based or alternative digital accommodations for visually impaired candidates in various forms, though the public documentation of these efforts is limited and this article does not claim to have verified specific outcomes from them; they are noted here as evidence that Cameroon would not be alone in exploring this path, not as settled proof of what such a pilot would find. Kenya and WAEC's member states are, in any case, not geographically neighbouring Cameroon, and this article does not rely on proximity as part of the argument.

Cameroon's Law No. 2010/002 on the Protection and Promotion of Persons with Disabilities requires public institutions, including universities, to provide the support needed for disabled people to participate fully in public life, including education, but it speaks in general terms and does not specify examination modality; this review did not extend to any implementing decrees or ministerial orders that might give the law more specific force in higher education, which is noted as a limitation below. This breadth of discretion is consistent with the uneven, lecturer-dependent practice described above.

Methodology

This study is a qualitative, document-based policy analysis, not a systematic or scoping review, and no claim of replicable literature-search rigour (such as PRISMA reporting) is made. It is reported as such, following the suggestion that such studies be explicitly reframed as policy analysis rather than claim methodological rigour they do not have. Sources were identified through targeted searches of peer-reviewed journals, institutional and regulatory publications, and legal instruments relevant to assistive technology, examination accommodation, and disability policy in education, prioritising sources from Sub-Saharan Africa, Europe, and North America, with no fixed start date but excluding sources this author could not verify against their original publication. All source judgements and ratings in this article were made by a single reviewer (the author), which is a limitation discussed below; no inter-rater check was possible given the single-author scope of this study.

Nine comparison criteria were identified from the literature reviewed above and from testing-standards guidance on accommodation: transcription accuracy for standard text, mathematical and scientific notation, writing speed and physical fatigue, cost of provision, security and infrastructure reliability, institutional workload, learner independence, preservation of braille literacy, and fit with post-graduation employment. These criteria were not derived from unstructured conversations with students or staff; earlier drafts of this analysis that drew on informal, non-consented conversations have been revised to rely solely on the documented literature, both to avoid the ethical problems of using unconsented statements as data and to avoid the circularity of letting criteria be shaped by the preferences of any one group of respondents.

Each criterion was rated descriptively as favourable, mixed, or unfavourable for each mode, based on the weight of evidence reviewed and its fit with the Cameroonian anglophone context, with each rating linked to a specific supporting source or flagged as an unsupported inference where no citable source was available

(Table 1). This criteria-based comparison is not a vote count: the criteria are not treated as equally weighted, and a sensitivity consideration is discussed directly below. The approach follows established guidance on structuring decisions where no single metric captures everything that matters (Dodgson, Spackman, Pearman, & Phillips, 2009).

This analysis has clear limits, discussed in full below. Most importantly, it does not include a structured survey of Cameroonian visually impaired students or examination officers, so claims about what students themselves prefer are drawn from the cited literature rather than from new primary data collected for this study.

Findings: Weighing Computer-Based Against Non-Computer Methods

Transcription Accuracy for Standard Text

Non-computer methods require at least one, and often two, rounds of transcription or verification, each a further opportunity for error, particularly where braille contractions are ambiguous. Computer-based delivery removes this intermediary step for standard prose: the candidate types directly, and the graded document is the one produced. For ordinary text, the evidence favours computers (Douglas et al., 2011).

Mathematical and Scientific Notation

Treated as its own criterion, this is where the blanket judgement above does not hold. Braille mathematics and science codes, while demanding specialist transcription, are mature; current mainstream screen-reading software handles complex notation inconsistently. For heavily notation-dependent subjects, this criterion is mixed and may currently favour non-computer methods, pending further development of accessible notation tools, rather than uniformly favouring computers.

Writing Speed and Physical Fatigue

Writing by hand in braille is widely reported by practitioners to be slower and more physically demanding over an extended examination than typing is for a candidate comfortable with a keyboard, though comparable, published words-per-minute data specific to examination writing were not located for this study and are flagged as a gap in the evidence (see Limitations). On balance, this criterion is judged to favour computers for most candidates, while a minority who learned braille from early childhood without strong computer training may braille faster than they type, so the judgement favours computers on average rather than universally.

Cost of Provision

Non-computer methods carry a recurring, per-sitting cost (transcription or scribe time, materials) for as long as a student is enrolled. Computer-based delivery carries a higher upfront capital cost: a laptop and, unless the university uses free software such as NVDA, a software licence, but this is a largely fixed cost reusable across sittings and, potentially, future students. To illustrate the structure of this comparison without asserting specific local prices, which were not collected for this study: across a four-year programme with, illustratively, a dozen or so written examinations, the computer route incurs its main equipment cost close to once, while the non-computer route incurs a transcription or scribe cost at every one of those sittings. Separately, computer-based delivery also carries an ongoing administrative cost, invigilator training and IT support on examination day, that recurs regardless of how long the hardware itself lasts; this ongoing cost should not be confused with the one-time equipment cost. Short-term, upfront cost is therefore a genuine

obstacle for departments without a dedicated budget, while the cumulative cost over a typical degree is likely, though not confirmed by this study, to favour computers; the judgement is mixed, trending toward computers over time.

Security, Cheating Risk, and Infrastructure Reliability

A properly configured, offline computer examination, checked by a trained invigilator, need not be more vulnerable to malpractice than paper, provided that configuration is actually in place; an informally supervised laptop is a distinct and real risk that reflects absent protocol rather than the technology itself. Non-computer methods carry their own risk: that a transcriber or scribe could alter a candidate's answer while handling it, while computer-based delivery carries risks of tampering or loss at printing or file-transfer stages; neither mode is risk-free, and the comparison is better framed as requiring different safeguards than as one mode being categorically safer. Infrastructure reliability favours non-computer methods distinctly: braille written by hand needs no electricity or connectivity, which matters directly in a region that has experienced conflict-related disruption since 2016. This criterion as a whole is judged mixed, with the infrastructure sub-point weighing toward non-computer methods specifically where power or connectivity cannot be assured.

Institutional Workload

A typed document is easier for an examiner to grade than a script requiring transcription or verification against an original. Against this, computer-based delivery requires an ongoing institutional commitment, invigilator training, IT support, and updated regulations that are distinct from, and in addition to, the one-time equipment cost discussed above; this is not a cost that disappears once initial infrastructure is purchased. Non-computer methods rely on transcription arrangements most anglophone Cameroonian universities already have in some form, even where under strain. Taking the examiner's reduced marking burden and the institution's ongoing administrative commitment together, this criterion is judged mixed rather than favouring either mode outright.

Learner Independence and Dignity

Non-computer methods necessarily involve a third person, a transcriber or scribe, who reads and handles the candidate's private examination answers; several visually impaired students, in the literature reviewed, describe this dependence as uncomfortable regardless of the third party's professionalism. Computer-based delivery lets the candidate write, review, and correct their own work without a third party reading it during the process, restoring an independent relationship with one's own script. This criterion favours computers strongly and is treated below as a factor likely to weigh most heavily for many individual students, though not necessarily for every student or subject, which is central to this article's argument against a uniform policy in either direction.

Preservation of Braille Literacy

Raised in the literature review but previously absent from the criteria list, this consideration cuts the other way. Braille skill is linked to durable literacy and employment outcomes for blind adults in a way that audio-only engagement with text is not (National Federation of the Blind, 2009; Ryles, 1996), and an examination policy that only ever rewards computer use could unintentionally signal that braille mastery is no longer worth the effort of acquiring. This criterion favours non-computer methods, or more precisely favours continued investment in braille instruction regardless of which mode a student ultimately uses for examinations.

Fit with Post-Graduation Employment

Office and administrative work in Cameroon's formal labour market, as elsewhere, generally assumes computer literacy, word processing, email, and increasingly specialised software, though this article did not locate Cameroon-specific data on the employment outcomes of visually impaired graduates and does not claim this point is empirically demonstrated for this population specifically. As a plausible, if not directly evidenced, consideration, this criterion favours computers, while not implying that braille instruction should be reduced, since the two serve different purposes.

Summary Comparison

Table 1 summarises the nine criteria, with a brief indication of the supporting basis for each judgement.

Table 1. Comparing Computer-Based and Non-Computer Examination Methods

Criterion	Non-Computer Methods	Computer-Based	Judgement	Basis
Transcription accuracy (standard text)	Unfavourable	Favourable	Favours computers	Douglas et al. (2011)
Mathematical/scientific notation	Favourable (mature braille codes)	Unfavourable (inconsistent software support)	Mixed, may favour non-computer	Author's inference; not directly evidenced
Writing speed and fatigue	Unfavourable for most	Favourable for most	Favours computers (average, not universal)	Practitioner-reported; no WPM data located
Cost of provision	Unfavourable long-run (recurring)	Unfavourable short-run (capital)	Mixed, trending to computers long-term	Author's structural inference; no local price data
Security, cheating, infrastructure	Mixed; favourable on infrastructure	Mixed; unfavourable on infrastructure	Mixed, context-dependent	Author's inference from policy literature
Institutional workload	Favourable to continuity	Favourable to examiners only	Mixed	Author's inference
Learner independence and dignity	Unfavourable	Favourable	Favours computers	Literature-reported student experience
Preservation of braille literacy	Favourable	Unfavourable if unchecked	Favours non-computer	NFB (2009); Ryles (1996)
Fit with post-graduation employment.	Unfavourable	Favourable	Favours computers (plausible, not evidenced)	Author's inference; no Cameroon data

Four criteria favour computers, one favours non-computer methods outright, and four are mixed or context-dependent. This is deliberately not summarised as a numerical score: the criteria are not of equal weight for every student or subject, a point developed in the Discussion rather than resolved by counting rows.

Discussion

The balance of criteria above does not support a uniform policy in either direction. University caution about formalising computer-based examinations is not baseless: infrastructure reliability, mathematical notation, and the preservation of braille literacy are genuine, evidenced considerations rather than pretexts for inaction. At the same time, the criteria that favour computers, particularly transcription accuracy for standard text and learner independence, are substantial enough that continuing to withhold computer-based delivery as an option is not well supported either.

Rather than resolve this by counting rows, it is worth making the weighting problem explicit. If a university or an individual student weighted infrastructure reliability and mathematical notation most heavily, perhaps because a student is sitting STEM examinations in a region with unreliable power, the comparison above would favour non-computer methods for that student. If independence and standard-text accuracy were weighted most heavily, as many students in the literature reviewed here report prioritising, the comparison would favour computers. Because this weighting legitimately differs by student, subject, and even examination sitting, a policy that fixes the weighting institutionally, by mandating one mode for all visually impaired students, cannot be correct for everyone; a policy that lets the weighting be set individually, in consultation with the disability support office, is robust to this disagreement in a way a uniform mandate is not. This is the central argument for documented, individually negotiated choice, rather than an artefact of how many criteria happen to favour computers.

This also addresses the apparent tension in the literature between studies emphasising computer-based accuracy and studies emphasising braille literacy preservation: both are correct for different parts of the comparison, and a choice-based policy, rather than a uniform mandate, is what allows both bodies of evidence to be honoured rather than one being implicitly discounted.

A further implication concerns partially sighted students specifically. Where a blind student's real choice is between non-computer methods and screen-reading software, a partially sighted student may instead prefer a computer configured with screen magnification and high contrast rather than audio output, a variant folded into "computer-based" delivery throughout this article but one disability support offices should treat as a distinct configuration decision when agreeing an examination mode with an individual student.

Any policy adopted on this basis should be evaluated with its self-selection limitation in view: because students would choose their own examination mode under the policy recommended below, later differences in outcomes between modes cannot be read as the causal effect of the mode itself, since students choosing each mode may differ in ways (prior computer literacy, severity or onset of visual impairment, subject) that independently affect outcomes. This is a limitation of the recommended policy's evaluability, not a reason against the policy, and is addressed further in the roadmap below.

Recommendations and Institutional Roadmap

Based on the comparison above, the following phased roadmap is recommended for anglophone universities in Cameroon.

Phase One: Codify the Policy. The university senate, or equivalent academic body, should adopt an explicit examination accommodation policy recognising computer-based delivery, using approved screen-reading or magnification software, as a standard option available to any student with a documented visual impairment through the disability support office, alongside existing non-computer options. This removes dependence on individual lecturer discretion.

Phase Two: Build Infrastructure and Protocols. The disability support office, with the IT department and examination office, should develop a standard protocol covering machine configuration (wireless disabled, no files beyond the current examination), invigilator checks before and during the examination, a backup power plan given the infrastructure risks discussed above, and a secure process for producing the final transcript for grading. Free, open-source software should be the default, with paid software reserved for students whose needs it serves better.

Phase Three: Pilot with Defined Evaluation Criteria. Before wide rollout, the university should run a one-semester pilot with volunteer students across several subjects, including at least one notation-heavy subject, with predefined evaluation indicators agreed in advance: task completion rate, time-on-task relative to the standard allowance, and a structured student and examiner satisfaction survey, reviewed against a stated threshold before any wider rollout decision is made.

Phase Four: Preserve Non-Computer Options. Non-computer methods should remain fully available and resourced throughout, so this change is additive. Students should be consulted individually, ideally each academic year, on their preferred mode, with the choice revisitable if circumstances or subject demands change.

Phase Five: Track Outcomes, with Its Limits Acknowledged. The university should track grades, completion rates, and feedback by examination mode over at least two full cycles, while explicitly noting that, because students self-select their mode, differences observed cannot be interpreted as the causal effect of the mode alone; the tracking is intended to surface practical problems, not to produce a controlled comparison.

Limitations

This analysis has several limits. It is a document-based policy analysis conducted by a single reviewer, not a systematic review with multiple raters or a documented, reproducible search protocol, and its judgements, while linked to sources where possible (Table 1), include inferences flagged as such rather than directly evidenced claims; several of these, including claims about relative writing speed and about Cameroonian employment outcomes for visually impaired graduates, could not be supported with the comparative or local data that would strengthen them, and are noted as gaps rather than settled findings. No structured survey of Cameroonian visually impaired students, examiners, or administrators was conducted, so claims about student preference rely on the literature cited rather than new primary data; this is consistent with reframing the study as a policy analysis rather than an empirical study of preferences. The review of Law No. 2010/002 did not extend to implementing decrees or ministerial orders that might bear more specifically on higher education examinations. This study also treats braille transcription and amanuensis dictation as a single "non-computer" category for most of the comparison, despite their differing error and independence profiles, a simplification flagged in the Introduction and one that future work disaggregating the two modes should address directly. Finally, the author's broader research interest in accessible examination design for Cameroonian learners with visual impairment should be read as a disclosed stance that may shape this analysis, rather than a neutral vantage point.

Conclusion

The disagreement between visually impaired students who prefer computer-based examinations and university authorities who have not made this standard practice reflects an unresolved policy gap, not a dispute properly settled by administrative default in either direction. This comparison across nine criteria finds no mode winning uniformly: computers are favoured for standard-text accuracy, writing speed, independence, and plausible fit with post-graduation work, while non-computer methods are favoured for preserving braille literacy and, in this specific setting, for not depending on infrastructure that is not always reliable; cost, institutional workload, mathematical notation, and overall security are each mixed rather than resolved. Because this weighting differs legitimately by student and subject, the evidence supports a policy of documented, individually negotiated choice rather than a uniform mandate, backed by clear security protocols, continued investment in braille instruction, and a phased, evaluated rollout rather than an untested, wholesale switch. Adopting such a policy would resolve the immediate disagreement described in this article's statement of the problem, while remaining honest about what this document-based analysis could and could not establish on its own.

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