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Title: Anticipating Epistemic Injustice in Morocco's EMI Transition: A Foresight Study Based on High School Teachers' Perspectives

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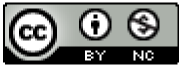

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Abstract: Following a recent decree expanding English as a medium of instruction (EMI) in Moroccan higher education, a nationwide transition appears imminent despite limited evidence on readiness and equity. Grounded in epistemic-justice theory and foresight practice, this mixed-methods study analyzed data from 202 Moroccan high-school English teachers. Quantitative results revealed a significant proficiency advantage for private-school students, while urban–rural differences were insignificant. Qualitative findings highlighted three major concerns: curricular misalignment, testimonial injustice toward less-fluent students, and risks of renewed linguicism. The study underscores the need for inclusive, equity-oriented policymaking in Morocco's EMI transition.

Keywords: English-Medium Instruction (EMI), Epistemic Justice, Educational Language Policy, Moroccan Secondary Education, Educational Inequality, Linguicism.

استشراف الظلم المعرفي في انتقال المغرب إلى التدريس باللغة الإنجليزية (EMI): دراسة استشرافية من منظور أساتذة التعليم الثانوي

د. د. محمد الماشيشي

الملخص: : أصدرت وزارة التربية الوطنية المغربية قرارًا بتوسيع اعتماد اللغة الإنجليزية لغةً للتدريس في التعليم العالي، مما يجعل الانتقال إلى التدريس باللغة الإنجليزية (EMI) وشيكًا، رغم محدودية الأدلة حول الجاهزية والعدالة. اعتمدت هذه الدراسة منهجًا مختلطًا، مستلهمةً نظرية العدالة المعرفية والاستشراف المستقبلي، لتحليل بيانات ٢٠٢ من أساتذة اللغة الإنجليزية بالتعليم الثانوي في المغرب. أظهرت النتائج الكمية تفوقًا دالًا لصالح تلاميذ التعليم الخاص، مقابل غياب فروق ذات دلالة بين الوسطين الحضري والقروي. وكشف التحليل النوعي عن ثلاث قضايا رئيسة: عدم مواءمة المناهج، والظلم الشهادي تجاه المتعلمين الأقل طلاقة، والتخوف من الإقصاء اللغوي. وتؤكد الدراسة ضرورة تبني سياسات تعليمية تشاركية تراعي العدالة في مسار الانتقال إلى EMI.

الكلمات المفتاحية: التدريس باللغة الإنجليزية (EMI)، العدالة المعرفية، السياسة اللغوية التعليمية، التعليم الثانوي المغربي، عدم المساواة التعليمية، الإقصاء اللغوي.

I. Introduction

Morocco stands at a silent linguistic crossroads. After decades oscillating between Arabization and French language hegemony, the Moroccan government has signaled a historic shift toward English-medium instruction (EMI) across higher education. Proponents hail this step, framing it as a gateway to a globally better-integrated Morocco, while critics warn it may simply reproduce the epistemic hierarchies previously entrenched under French-medium instruction (FMI). However, there is a paucity of empirical evidence on who is ready, who is at risk, and how best to pave the way for this transition.

Drawing on Fricker's (2007) epistemic justice and strategic foresight practice (UNESCO, 2021), we adopted a mixed-methods approach. We surveyed 202 Moroccan high-school English teachers—spanning public/private and urban/rural divides—to map (a) perceived student proficiency, (b) attitudes toward EMI, and (c) the curricular and institutional scaffolds teachers deem essential for an equitable shift. By integrating thematic analysis and inferential statistics, we identified structural disparities that risk turning EMI into a gate-keeping instrument denying the least advantaged access to knowledge. We then translated those disparities into foresight-informed scenarios with policy levers designed to avoid another cycle of linguicism.

This study offers three contributions to the Moroccan EMI literature. First, it provides a large, up-to-date reality check of EMI-readiness gaps in secondary education—a critical input for mid- and long-term policy because it focuses on the future cohort of university students currently in secondary school. Second, it introduces an equity-foresight readiness index that operationalizes testimonial and hermeneutical justice for language-policy planning. Third, it presents a teacher-generated toolkit to facilitate an equitable EMI transition. Taken together, the findings aim to inform Morocco's anticipated EMI roadmap, drawing on lessons from similar post-colonial settings.

II. Review of Literature

1. Language Policy in Morocco: A Historical Context

Morocco's educational policy has been shaped by the Kingdom's history and power dynamics (Chakrani et al., 2025). The colonial powers positioned language at the forefront of their

policy to control the indigenous people, especially under the French protectorate, as the French enforced their language in public administration and elite education, founding bifurcated system privileging French over the local languages (Segalla, 2009). Post-indepence in 1956, Morocco adopted Arabization 'to restore national identity', mandating Arabic as the medium of instruction in public education (Ennaji, 2002). However, that was just ink on paper, especially as Francophone elites, who were primarily formed during the colonial era, continued to ensure that French retained its colonial supremacy in their spheres of influence, including science, technology, engineering, and mathematics in private and mission schools (Chakrani & Huang, 2014). This created a de facto dual system where Arabic remained the primary medium of instruction in primary and secondary education (Mansouri, 2023), while French kept a dominant foothold in higher education, perpetuating the colonial era class based education (Bidwell, 2012).

Moroccan language policy has long oscillated between efforts to revitalize Arabic while continuing to accommodate for French (Ennaji, 2005). In the aftermath of the Arab Spring in 2011, Morocco took a more inclusive stance on language policy, constitutionally recognizing Tamazight (Berber language) as an official language alongside Arabic (Maghraoui, 2011). Yet, the constitutional recognition did not transmit into educational settings, taking a marginal instructional use only (Castangia, 2024). In 2019, the Moroccan government issued a controversial "Language Alternation Policy" (Law 51.17), which aimed to diversify languages of instruction by introducing French as the medium of instruction in secondary school science fields with plans to gradually introduce English. (Boussagui & El Kirat El Allame, 2025). The reform's stated goal was to follow a "balanced multilingualism" that would allow students to master foreign languages and preserve national ones (Ziady et al., 2024).
Irrespective of the lofty, egalitarian rhetoric surrounding 2019 reform, it resulted in what its critics labelled a '*re-Francization*' of education in scientific and technical fields (Chakrani et al., 2025). Nearly 6 years into the policy, studies report that French has effectively dominated science classes, displacing Arabic and only restricting English to a handful pilot programs (Ben Hammou & Kesbi, 2024). In practice, the language alternation policy only reinforced the status of French, exposing a stark difference between policy goals and reality. Researchers Chakrani, Ziad, and Lachkar (2025) argue that the 2019 reform effectively instituted a *de facto* French as a medium of instruction policy (FMI), undermining the constitutionally enshrined status of Arabic and Tamazight. This reflects what scholars describe as the paradox of language policy in Morocco with official reforms evoking equity

and multilingualism, while concealing socio-political biases and reinforcing linguistic hierarchies (Iazzetta, 2024). Pedagogically, the 2019 reform has also proven difficult to implement for both teachers and students. For instance, (Ben Hammou & Kesbi, 2023) investigated Moroccan science teachers' perceptions and experience with French as a medium of instruction. They concluded that students' low proficiency in French remained 'a major challenge' in the face of the new reform. Additionally, they asserted that research participants overwhelmingly favored English as a medium of instruction over French. In postcolonial settings maintaining strong linguistic ties with ex-colonizer's language, such as Morocco, a foreign language as a medium of instruction (MOI) can be a gatekeeper of educational equality (Rudnick, 2024). Indeed, the current Moroccan educational regime continues to sustain a form of *linguistic capital* (Sung-Yul Park & Wee, 2013*)* that privileges students from affluent backgrounds while undermining the rest (Errihani, 2023).

Morocco's language policy is a history of tensions between Arabization and linguistic colonial legacies. Arguably, the latest reforms, guised under the egalitarian mantras of multilingualism, has only solidified an already existing French linguistic hegemony. Grounding this context is essential to understanding the prospects of English as medium of instruction in Morocco (EMI) and its potential challenges, including questions surrounding epistemic injustice that may occur during this transition.

2. The Growing Importance of English in Morocco

In recent years, English has been gradually gaining increased importance in Morocco's linguistic landscape, driven by a growing popular demand and strategically pragmatic imperatives (Bekou & Ben Mhamed, 2023). Unlike French, Moroccans do not associate English with a colonial baggage (R'boul, 2022)—it is rather viewed as neutral international language, making it considerably more attractive to a society striving to break free from colonial legacies (Belhiah, 2020). This, combined with English global status in science, business, and pop culture, have driven towards a growing societal perception that views English proficiency as essential in individual and collective progress

Morocco language policies have increasingly acknowledged a shift from French to English in Morocco is advantageous to keep pace with global development, which is evident in the latest expansion of English in public education. In 2023, the minister of Education Chakib Benmousssa, announced that Morocco would be expanding English to middle and primary schools—a move from the policy of English teaching exclusively in the last year of middle

school and throughout high school (Zouiten, 2023). In the same vein, the Ministry of Education 2022-2026 roadmap promises to expand English teaching in the public schools (Ministry of Education, 2022). In the latest Move to strengthen the status of English, the government introduced the decree No 2.21.448 on linguistic engineering that concerns all educational institution across all levels and types of schools, mandating English to be a core instructional language across the board (MASAITI, 2025).

A growing public discourse coupled with strong academic advocacy in Morocco has been pushing for strengthening English education (Anderson, 2014; Seddik, 2020). Research shows that Moroccan faculty members across different institutions contend that continuing to adopt French as a medium of instruction is disadvantageous to students at an epistemological level , since cutting-edge knowledge often comes in English and then it must undergo translation to French before it becomes available (R'boul, 2024). Blhiah and Abdelatif (2016) found that university stakeholders increasingly favor EMI over French in higher education. This rise of English has not been unchallenged—on the contrary, critics point that the 2019 reform was seen as an attempt to 'arrest the spread of English' (Chakrani et al., 2025). This tug-of-war between French and English is framed as a power struggle between a colonial language and a global lingua franca.

The grass is not always greener on the other side, and a shift to English may not be the panacea some would like to imagine. While English holds lofty promises to better integrate Morocco in the global market, experts warn that simply replacing French with English will not automatically eliminate inequalities (Bichoualne & Rong, 2024), especially due to low language proficiency as shown by EF proficiency index (*EF EPI | EF English Proficiency Index | EF Global Site (English)*, 2024). An abrupt shift to EMI without an equity-grounded approach could just eventually exacerbate inequalities as research found in similar contexts in Pakistan (Suleman et al., 2024), Rwanda (Sibomana, 2022), and Tanzania (Vavrus, 2002). In the long run, many foresee a transition to English in Morocco inevitable to align the country with the global economy (Errihani, 2017). The key is, then, is to manage such a shift carefully without perpetuating the very inequalities that marred the history of language policy in post-colonial Morocco.

3. Foresight Studies in Education: Theoretical Framework

Foresight studies, known as futures studies or strategic foresight, offer a systematic approach to envision and prepare for possible future[s] (McKelvey & Boisot, 2009). Rather than predicting a definitive future, foresight employs a variety of tools to explore multiple plausible scenarios, including desirable ones and adverse—so that stakeholders can make 'future-proof' and informed decisions (Robinson et al., 2021). At its core, strategic foresight is a structured, participatory process to investigate drivers of change and imagine how different futures might unfold, with the stated aim of informing current policies (*UNDP*, 2018). Key attributes of foresight studies include analyzing emerging trends and critical uncertainties, anticipating probable causes for disruptions, and stimulating strategic thinking far beyond conventional assumptions (Polchar, 2024). This research approach has been adopted in various domains, from business to public policy, and is increasingly used in educational planning to navigate rapid changes (Chimal, 2024).

Several theoretical frameworks underpin foresight studies. One is the idea of "possible, probable, and preferable futures", a framework that requires thinkers to differentiate between what could happen, from what is likely to happen, and from what stakeholders desire to happen (normatively) (Wolbers et al., 2024). Another concept is futures literacy, conceptualized by UNESCO as the skill of imagining and preparing for the unknown future (*Futures Literacy & Foresight | UNESCO*, n.d.). From a practical standpoint, researchers employing foresight embrace both complexity and uncertainty—they acknowledge that factors such as political will, economic shifts, and attitudes shape social systems, e.g., education (Saritas, 2013), so planning must remain flexible and adaptive (Conway, 2015). In the context of this paper, a foresight approach means engaging with educators to anticipate various scenarios of introducing English as a medium of instruction. Such process allows teachers to voice their concerns and expectations, which can aide policymakers to avoid undesirable future scenarios—such as epistemic injustices. To sum up, the strength of foresight lies in its potential to anticipate future scenarios following a participatory approach that gives voice to all stakeholders to shape public policies.

4. Epistemic Injustice: Concept and Relevance to Language Policy

Epistemic injustice is a form of injustice in which someone is wronged in their capacity as a knower—whether through prejudicial deflation of their credibility or through structural failures in our collective interpretive resources that silence and marginalize their contributions (Fricker, 2007). Philosopher Miranda Fricker (2007) pioneered this concept, identifying two underlying types of injustice: testimonial and hermeneutical. Testimonial injustice happens when a listener deflates a speaker's credibility as a knower because of a certain prejudice on the part of the listener—for instance, dismissing someone's knowledge because of their low English proficiency is a form of testimonial injustice. Hermeneutical injustice refers to a situation in which someone's experiences or knowledge are misunderstood, obscured, or rendered unintelligible due to gaps or deficiencies in the collective interpretive resources available to a society (*Epistemic Injustice | Internet Encyclopedia of Philosophy*, n.d.). In other words, when a society lacks the capacity, either conceptually or linguistically, to interpret a marginalized group's perspective, the latter ends up suffering an epistemic disadvantage. Both forms relate to power and credibility in the realm of individual and collective knowledge.

In educational and language policy, epistemic injustice offers a lens to navigate how language hierarchies can effectively sideline knowers (Pohlhaus, 2012). Language intertwines with epistemic agency—it is a medium that allows learners to express understanding and for educators to ensure that learning has occurred. Imposed foreign languages might lead some learners to experience a form of credibility deficit (i.e., listeners might wrongly assume that they are less knowledgeable due to limited proficiency)—which is a prime example of testimonial injustice rooted in linguistic power dynamics (Wilmot, 2024; Lev-Ari & Keysar, 2010). In relation to language and epistemic justice, it is paramount to present the concept of linguicism, defined as the "ideologies, structures and practices which are used to legitimate, effectuate, and reproduce an unequal division of power and resources (both material and immaterial) between groups which are defined on the basis of language" (Skutnabb-Kangas, 2015). Learners from marginalized backgrounds are often systematically undermined in their capacities as knowers (Reay, 2018). In the same vein, a monolingual policy can create fertile grounds for hermeneutical injustice when, for instance, indigenous concepts or ways of knowing are subject to exclusion because the dominant language lacks the necessary terminology to value them. As Ngũgĩ wa Thiong'o (2011) argues, language is not only a tool for communication but also "a carrier of culture" and "the collective memory bank of a people's experience in history" (p. 16). Thus, suppressing a language amounts to eroding an entire way of knowing. In the context of

Morocco, allowing the emergence of a homogenous language, whether French or English, in epistemic institutions such as schools and universities can unjustly marginalize those educated or wishing to be educated in other languages, thereby eroding their capacity to consume and produce knowledge (Boutayeb, 2024). Approaching language policy through the lens of epistemic justice offers a robust framework to craft equitable language policies.

Approaching Morocco's anticipated EMI shift within epistemic injustice is highly pertinent. On the one hand, supporters and critics of shifting to EMI have both used epistemic justice arguments, albeit in different ways. Advocates claim that adopting English as a language of instruction will democratize access to global knowledge and opportunities, hence advancing a form of epistemic justice—provided this shift is rooted in the principles of epistemic justice ; Milligan, 2022). On the other hand, critics argue that implementing EMI in Morocco could reproduce inequalities. Students from privileged backgrounds would reap the most benefits while others might be trapped in epistemic contexts where their voices are unheard, as research has documented worldwide (Erling et al., 2016). Opponents further argue that EMI could just widen inequalities, mirroring the very testimonial injustices that have long plagued the system under French linguistic hegemony (Khatib, 2024). Thus, adopting an anticipatory approach focusing on epistemic justice urges stakeholders to foresee these risks and provide remedies.

This review has traced Morocco's colonial language policy and its lasting effects. Understanding that historical trajectory is essential for grasping today's realities and for evaluating the potential shift toward English-medium instruction (EMI). Finally, the review sets out epistemic justice and foresight as complementary lenses for analyzing any future policy change.

III. Methodology

This section sets out the paper's research methodology. It opens by stating the research questions and objectives, then situates the study by describing the setting and participants. A theoretical framework follows, clarifying the design and rationale of the research instrument. The section concludes with a comprehensive qualitative and quantitative data analysis.

This research adopts a mixed-method design to capture Moroccan high school English teachers' perception towards EMI. This methodology allows to collect, analyze, and integrate quantitative and qualitative data in a single study, providing a robust platform for triangulation (Creswell & Clark, 2018). Additionally, foresight scholars explicitly recommend such hybrids, classifying techniques as quantitative, qualitative, and mixed—using combinations such as surveys, Delphi, and stakeholders analysis (*UNESCO Chair on Future Studies*, n.d.; Kurzin & Keenan, 2019). Language policy research also argues that a deep understanding of policies requires "micro-macro" connections, which can be achieved by coupling critical discourse or test with evidence captured from local settings (Johnson, 2009). In this study, a single questionnaire that integrates both quantitative (closed-ended) and qualitative (open-ended) items enables us to capture English high-school teachers' perceptions of the current situation and of Morocco's prospective shift to English-medium instruction. Combining question types in one instrument is a well-established mixed-methods tactic, providing the statistical breadth of survey data while also eliciting contextualised narratives that deepen interpretation (Dörnyei & Taguchi, 2009).

1. Research Questions:

The research sets out to answer the following questions:

RQ1. *Do English teachers in private and public Moroccan high schools differ in their ratings of students' English language proficiency?*
RQ2. *Do English teachers in urban and rural Moroccan high schools differ in their ratings of students' English language proficiency?*

RQ3. Do English teachers in Moroccan public and private high schools report significantly different student attitudes toward English-medium instruction (EMI)?

RQ4. To what extent does teachers' highest degree (e.g., BA, MA, PhD) predict Moroccan high-school English teachers' self-reported readiness to adopt EMI?

RQ5. What concerns do Moroccan high-school English teachers identify regarding a potential nationwide shift to EMI?

RQ6. What resources and forms of institutional support do Moroccan high-school English teachers say they need to facilitate a successful transition to EMI?

2. Research Participants

The dataset underwent a cleaning phase where 5 responses have been removed because they do not fit the research criteria (i.e., teachers of English working in Moroccan high schools). Morocco's upper-secondary cycle lasts three years: a Common Year (Tronc Commun) for all streams, followed by First-Year Baccalaureate and Second-Year Baccalaureate, after which students sit the national Bac exam. Pupils select science, humanities or technical tracks at the end of the Common Year, and complete specialized coursework in the two Baccalaureate years. After the cleaning process, the research participants comprised of 202 high school teachers of English in Morocco (Table 1). 79.3% (n =161) of the participants identified their primary teaching job at the public sector, while the remaining 20.3% (n = 41) worked in the private sector. As for the geographical distinction, most teachers' schools were in urban areas 79.3% (n =161) and 20.3% (n =46) in rural areas. Concerning teaching experience, 40% (n =81) of the participants had less than 5 years teaching experience, 35.6% (n =72) between 5 to 10 years, teachers with 11 to 20 years of experience 18.3% (n =37), and senior teachers with more 20 years' experience represented only 5.9% (n =12). Finally, the participants' highest level of education revealed the following: 48% (n =98) were master's degree holders, Bachelor's degree holders 45% (n =92), and Doctorate holders 5.9 % (n =12).

Table 1
Participants Demographics

Variable	Frequency	Percentage
School Type		
Private	41	20.3
Public	161	79.3
School Location		
Urban	46	22.7
Rural	156	77.2
Teaching Experience		

Variable	Frequency	Percentage
11 - 20 years	37	18.3
5 - 10 years	72	35.6
Less than 5 years	81	40
More than 20 years	12	5.9
Education		
Bachelor's Degree	92	45.5
Doctorate	12	5.9
Master's Degree	98	48.5

3. Research Instrument

Upon reviewing the literature for a possible research instrument to capture high school teachers of English perspectives about a shift to EMI, we could not find a model to emulate. Therefore, it was appropriate to devise a research instrument, questionnaire in this case, to investigate the issue at hand, which is well justified in applied linguistics research (Zhang & Aryadoust, 2022). The following section details the research instrument part by part.

Since the main objective of the research is to unearth possible inequalities between Moroccan high school students' English proficiency according to their teachers, the questionnaire included three questions about the teachers' geographical locations and types of school (Table 2). The private and public school variable (Q1) has been well documented in applied linguistics research in different EFL contexts (Prasad Adhikary, 2023;De Oliveira et al., 2024). The same thing goes for urban versus rural divide (Q2) as researchers in various EFL contexts have studied differences between students from these geographical areas (Ndijuye & Beatus, 2024; F. Zhang et al., 2024). Finally, regional differences (Q3) as a variable has also been present in a number of research throughout the world (SER, 2025)

Table 2:
Questionnaire: Geographics and School Type

	Questions	Options
Q1	Where is your main teaching job?	Option 1: Public Sector Option 2: Private Sector
Q2	Where is your school based?	Option 1: Rural Area Option 2: Urban Area
Q3	Please specify the exact location of your school	Short question

Note: Q3 aims to capture the teachers' regional locations.

The survey also captured the teachers' educational and training background. Q4 aims to collect information about the participations highest level of education, which is a variable thought by researchers to affect readiness to adopt EMI (Lo & Othman, 2023). Q5, Q6, and Q7 targets the participants' EMI experience and professional development. Previous research found a strong positive correlation between EMI experience and classroom leadership (Wang, 2024) as well as a strong support for EMI formal professional development among educators (Macaro et al., 2019).

Table 3
Educational Background and EMI experience

	Question	Options
Q4	What is your highest level of education?	Option 1: Bachelor's Degree Option 2: Master's Degree Option 3: Doctorate
Q5	Have you taught any subjects other than English (Please specify the subject(s) you teach other than English).	Option 1: Yes Option 2: No Please specify the subjects you have taught.
Q6	Have you received any professional development training related to EMI?	Option 1: Yes, extensive training Option 2: Yes, some training Option 3: No, but I would be interested in training Option 4: No, I am not interested in training
Q7	Have you have any experience teaching English for Academic Purposes (EAP) or English for Specific Purposes (ESP)?, if yes, please specify below.	(**Multiple Choices)** Option 1: No experience Option 2: ESP experience Option 3: EAP experience

One of the most important goals of this study is to get a snapchat of Moroccan high school students' English proficiency (Table 4). Teachers were asked to grade each group they teach, from common core to second year baccalaureate, on a five-point scale (1 = very low, 2 = low, 3 = moderate, 5 = high, 5 = very high). This item was adapted from the Australian Early Development Census (AEDC) teacher-completed instrument (Item B1 "Proficient in English": *How would you rate this child's ability to use language effectively in English*; response codes collapsed from Very poor–Very good; AEDC Data Dictionary v7.0, pp. 251–252, 520)AEDC, 2025). Proficiency analysis using AEDC have demonstrated that collapsing the 5 categories into proficiency groupings (e.g., very low to very high) can predict academic performance. Convergent validity also comes from large datasets in England, where schools must classify English-as-an-Additional-Language learners on a five-level teacher-judged proficiency scale for census and accountability reporting (Department for Education [DfE], 2020).

Table 4
English Proficiency Assessment

Question Number	Question	Options
Q8	How would you rate your students' overall language proficiency?	1, very low; 2: low; 3, moderate, 4, high, 5, very high
Q9	How do you rate your second-year bac students' English proficiency?	1 very low; 2: low; 3, moderate, 4, high, 5, very high
Q10	How do you rate your first-year bac students' English proficiency?	1 very low; 2: low; 3, moderate, 4, high, 5, very high
Q11	How do you rate your common core students' English proficiency?	1 very low; 2: low; 3, moderate, 4, high, 5, very high

The questionnaire also asked the teachers to assess their students' ability to understand content in English on a 4 points scale (table 5) , which is a prerequisite variable in adopting and adapting to any EMI shift (Dearden, 2014). A 4-point scale (no-midpoint) reduces parked responses and respondent burden while yielding usable ordinal data, especially that fine-grained precision is not required. The previous language assessment questions included a midpoint(Table 4), which might distort responses(Garland, 1991)—therefore, using a concise anchored scale (1 – 4) provides an alternative means to capture Moroccan high school students' proficiency as reported by teachers, and it is methodologically justifiable.

Table 5
Ability to understand content in English

Question	Options

Question	Options
Q12: Do you believe your students have the adequate language skills to understand content taught in English (Other than English classes)	Option 1: (Very Low) Only a few students can understand content in English. Option 2: (Low) Most students struggle to understand content in English. Option 3: (High) Yes, most students can understand content in English Option 4: (Very high) Yes, most students can understand content in English

In addition to eliciting teacher's general assessment of their students' proficiency, the survey included items mapping current high school English classroom conditions in Morocco (Table 6). This includes teachers' level of preparedness to teach using EMI, the instructional resources available or thereby lacking, and the types of support needed to prepare students cope with a possible shift to EMI. Prior research shows that successful EMI implementation hinges in a big part on teachers' language-pedagogic competence and institutional scaffolding (Macaro, 2018; Dearden, 2014; Zhao et al., 2023). Additionally, needs-analysis in emerging EMI contexts indicate that educators could identify concrete gaps to be improved (Walkinshaw et al., 2017). Within a strategic foresight framework, collecting evidence on current classroom conditions and the supports teachers require provides a holistic environmental scan of system capacities and constraints, laying the groundwork for constructing future scenarios in which a shift to English can be made as equitable as possible (Schultz, 2006).

Table 6

Environmental-Scan Survey Items: Classroom Conditions, Teacher EMI Preparedness, and Support Needs

Question	Options
Q13: What are the common challenges your students may face when using English for academic purposes (e.g., in other subjects)? (Select all that apply)	**Multiple Options** - Vocabulary Comprehension - Grammar and Syntax - Speaking and Communication - Listening Comprehension - Writing Skills
Q14: How prepared do you feel to teach your students using EMI? (5 = very high; 1= not prepared)	**Options:** 1, 2, 3, 4. 5
Q15: Do you believe that the current curriculum is sufficiently tailored to prepare students for a potential shift to English as a Medium of Instruction (EMI)?	**Options**: Strongly agree / Agree / Neutral / Disagree / Strongly disagree

Question	Options
Q16: What kind of support would help you feel more confident in preparing your students to adopt EMI? (Select all that apply)	**(Multiple Options)** - Professional Development/ training - Access for English for Academic Purposes Teaching Resources - Collaboration with other teachers - Collaboration with Higher Education institutions in Morocco - More autonomy to prepare lessons that are catered for your students - Support from school administration
Q17:What resources and support would you require to better prepare your students to adopt EMI in higher education?	Open Question

We added a small set of items probing students' attitudes toward a possible shift to EMI according to their teachers (Table 7). This section also sets to predict which kind of challenges students might face under EMI. EMI research shows that student attitudes vary depending on different context and this such variability should inform educational policy (Macaro et al., 2018). Additional data help contextualize readiness indicators: they show where positive attitudes might offset lower proficiency, and where resistance to EMI could slow uptake—insights that let planners and policy makers make fitting adjustments. This section also gives respondents space to sketch what they think could happen after an EMI shift, which is common practice in foresight technics (Chimal, 2024).

Table 7
Attitudes towards EMI

Question	Options
Q18: How do you perceive your students' attitudes towards learning in English (for non-English subjects) (5= very positive; 1 = very negative)?	Options: very positive/ Positive/ Neutral/ Negative / Very negative
Q19: Do you believe EMI will be beneficial for your students in the long term? (5= very beneficial; 1= not beneficial)	Options: 1/ 2 / 3/ 4/ 5
Q20: Do you have any concerns arising from a possible shift to EMI in Moroccan Higher Education?	Open-ended question

4. Ethics and Informed Consent

This study adheres to ethical research standards in educational settings. Before proceeding with the survey, all participants were informed about the voluntary nature of the study, the confidentiality of their responses, the right to withdraw at any time without consequences, and the overall purpose of the research. No names, email addresses, or any other identifying information were collected at any point. Consent to participate was explicitly obtained after participants reviewed this information and confirmed their eligibility by stating that they are high school teachers in Morocco.

5. Data Analysis

After explaining the data collection process in the previous sections, we now turn to the data collected in this study. The first step was to run preliminary validity and reliability checks. Next, we tested for normality and equality of variance to identify the appropriate statistical tests. Finally, we present the study's quantitative results alongside selected qualitative responses to contextualize the numbers.

5.1. Survey Validity and Reliability

The teacher survey demonstrated acceptable exploratory reliability and initial validity evidence: key multi-item indices showed $\alpha = .70$ for Teacher EMI Disposition and $\alpha = .74$ for the Teacher-Perceived Student Orientation short form, while proficiency ratings across grade bands were highly consistent ($\alpha = .88$). One formative sub-scale—Instructional Resource Confidence—returned a marginal $\alpha = .60$, but it was retained because the item set is exploratory, corroborated by convergent qualitative evidence, and falls within the tolerance range for early-stage constructs. Scale scores related in the expected directions to teacher-rated proficiency and content comprehension and differed by school type (Private > Public) and location (Urban > Rural), supporting construct validity for use in EMI-readiness analyses.

Table 8
Reliability and Validity Evidence for Teacher Survey Scales

Scale	k	α	ρ Overall Proficiency	ρ Content Comprehension	g Private>Public	p	g Urban>Rural	p
Teacher EMI Disposition (Importance, Preparedness, Perceived Attitudes, Motivation, Benefit)	5	.70	.22	.11	0.36	.051†	0.35	.024*
Teacher-Perceived Student EMI Orientation (Attitudes, Motivation, Benefit)	3	.60	.34	.20	0.56	.002	0.42	.023*
Teacher-Perceived Student EMI Orientation – Short (Attitudes + Motivation)	2	.74	.42	.26	0.67	<.001	0.34	.052†
Teacher-Perceived Student English Proficiency Across Bands (Overall, Common Core, 1st Bac, 2nd Bac)	4	.88a	—	—	—	—	—	—

Note. All items are teacher ratings. Higher scores = more favorable dispositions or higher proficiency/readiness. ρ = Spearman correlation; α = Cronbach's alpha; g = Hedges g (positive = second group higher). Private>Public and Urban>Rural comparisons use Mann–Whitney tests. Group sizes: Public n=161, Private n=41; Rural n=46, Urban n=156. [a] Reliability for proficiency band ratings based on teachers who rated all bands (n=122; exact α=0.8849). ***p < .001; **p < .01; *p < .05; †p < .10.

5.2. Normality Test

Before conducting inferential statistical analysis, we conducted the normality assumption check (Shapiro-Wilk) to identify which statistical tests were suitable to deal with the quantitative part of the questionnaire. The results showed significant deviations from normality (Table 9). Therefore, and since we compared two groups at once (i.e., private vs public; urbane vs rural), we opted for Mann Whiteny test. When comparing between three groups in a subsequent, we opted for Kruskal-Wallis test.

Table 9*: Test of Normality (Shapiro-Wilk)*

Residuals	W	p
How would you rate your students' overall language proficiency?	0.857	< .001
How do you rate your second year bac students' English proficiency?	0.903	< .001

Table 9: Test of Normality (Shapiro-Wilk)

Residuals	W	p
How do you rate your first-year bac students' English proficiency?	0.876	< .001
How do you rate your common core students' English proficiency?	0.934	< .001
Do you believe your students have the adequate language skills to understand content taught in English (Other than English classes)	0.829	< .001
Do you believe that the current curriculum is sufficiently tailored to prepare students for a potential shift to English as a Medium of Instruction (EMI)?	0.913	< .001
How do you perceive your students' attitudes towards learning in English (for non-English subjects)?	0.899	< .001
Do you think your students are motivated to use English as medium of instruction in their current and higher levels of education? (5 = very motivated; 1 = not motivated)	0.939	< .001
Do you believe EMI will be beneficial for your students in the long term? (5= very beneficial; 1= not beneficial)	0.773	< .001
In your opinion, how important is it for teachers to have specialized training in EMI to prepare high school students for a possible shift to EMI? (5= very important; 1= not important)	0.794	< .001
How prepared do you feel to teach your students using EMI? (5 = very high; 1= not prepared)	0.895	< .001

Note. Significant results suggest a deviation from normality.

5.3. Language Proficiency

The following part aims to break down Moroccan high school English teachers' reporting of Moroccan students' English proficiency. Here we answer two main questions:

RQ1. *Do English teachers in private and public Moroccan high schools differ in their ratings of students' English language proficiency?*

RQ2. *Do English teachers in urban and rural Moroccan high schools differ in their ratings of students' English language proficiency?*

We conducted Mann-Whitney to compare English proficiency ratings between private and public high schools' English students' proficiency (Table 10). Across all groups, 2nd year bac, 1st year bac, and common core, groups were statistically different in language proficiency and ability to understand content in English (all *ps* <.001). Effect sizes ranged from .34 to .50, with first year bac students showing the largest difference (.50), yielding moderate to large practical differences across the board. These results make the case that students in private schools tend to outperform their peers in Moroccan public high schools, making them more ready linguistically for an EMI shift in Morocco. Table 11 presents the exact proficiency ratings reported across the different groups, indicating a clear edge in favor of private high school students.

Table 10: Public Vs Private Mann-Whitney Test

	U	df	p	Rank-Biserial Correlation

Table 10: Public Vs Private Mann-Whitney Test

	U	df	p	Rank-Biserial Correlation
How would you rate your students' overall language proficiency?	4786.000		< .001	0.450
How do you rate your second year bac students' English proficiency?	3248.500		< .001	0.417
How do you rate your first-year bac students' English proficiency?	3955.500		< .001	0.495
How do you rate your common core students' English proficiency?	3350.500		< .001	0.340
Do you believe your students have the adequate language skills to understand content taught in English (Other than English classes)	4656.500		< .001	0.411

Note. For the Mann-Whitney test, effect size is given by the rank biserial correlation.

Note. Mann-Whitney U test.

Table 11: Group Descriptives, Private Vs Public High Schools

	Group	N	Mean	SD	SE	Coefficient of variation	Mean Rank	Sum Rank
How would you rate your students' overall language proficiency?	Private Sector	41	3.195	0.715	0.112	0.224	137.732	5647.000
	Public Sector	161	2.478	0.759	0.060	0.306	92.273	14856.000
How do you rate your second year bac students' English proficiency?	Private Sector	35	3.200	0.901	0.152	0.282	110.814	3878.500
	Public Sector	131	2.511	0.778	0.068	0.310	76.202	9982.500
How do you rate your first-year bac students' English proficiency?	Private Sector	36	3.111	0.785	0.131	0.252	128.375	4621.500
	Public Sector	147	2.367	0.750	0.062	0.317	83.092	12214.500

Table 11: Group Descriptives, Private Vs Public High Schools

	Group	N	Mean	SD	SE	Coefficient of variation	Mean Rank	Sum Rank
How do you rate your common core students' English proficiency?	Private Sector	40	3.000	1.038	0.164	0.346	104.263	4170.500
	Public Sector	125	2.368	0.938	0.084	0.396	76.196	9524.500
Do you believe your students have the adequate language skills to understand content taught in English (Other than English classes)	Private Sector	41	2.415	1.161	0.181	0.481	134.573	5517.500
	Public Sector	161	1.528	0.830	0.065	0.543	93.078	14985.500

To examine possible differences in perceived English proficiency by school location, we compared ratings from English teachers working in urban versus rural Moroccan high schools using Mann–Whitney U tests (nonparametric, given non-normality of the rating scales) (Table 12). Across all items—overall proficiency, second-year bac, first-year bac, common core, and perceived ability to follow English-medium content—no statistically significant differences emerged at $\alpha = .05$ (all *ps* $\geq .051$). Effect sizes, indexed by the rank-biserial correlation, were uniformly small in magnitude (range = .008 to .18). Two comparisons (overall proficiency, $p = .051$; first-year bac, $p = .062$) approached but did not reach conventional significance, indicating at most a weak trend. Taken together, teachers in urban and rural settings provided broadly similar assessments of their students' English language proficiency. Table 13 presents detailed descriptives statistics across all groups.

Table 12: Urban Vs Rural Mann-Whitney Test

	U	df	p	Rank-Biserial Correlation
How would you rate your students' overall language proficiency?	2977.000		0.051	-0.170
How do you rate your second year bac students' English proficiency?	2044.000		0.110	-0.160
How do you rate your first-year bac students' English proficiency?	2441.000		0.062	-0.176
How do you rate your common core students' English proficiency?	1923.000		0.140	-0.155
Do you believe your students have the adequate language skills to understand content taught in English (Other than English	3615.500		0.929	0.008

	U	df	p	Rank-Biserial Correlation
classes)				

Note. For the Mann-Whitney test, effect size is given by the rank biserial correlation.
Note. Mann-Whitney U test.

Table 13 : Urban vs Rural Descriptives

	Group	N	Mean	SD	SE	Coefficient of variation	Mean Rank	Sum Rank
How would you rate your students' overall language proficiency?	Rural area	46	2.413	0.933	0.138	0.387	88.217	4058.000
	Urban Area	156	2.686	0.752	0.060	0.280	105.417	16445.000
How do you rate your second year bac students' English proficiency?	Rural area	38	2.474	1.033	0.168	0.418	73.289	2785.000
	Urban Area	128	2.711	0.785	0.069	0.290	86.531	11076.000
How do you rate your first-year bac students' English proficiency?	Rural area	42	2.310	0.924	0.143	0.400	79.619	3344.000
	Urban Area	141	2.574	0.768	0.065	0.298	95.688	13492.000
How do you rate your common core students' English proficiency?	Rural area	35	2.314	1.183	0.200	0.511	72.943	2553.000
	Urban Area	130	2.577	0.939	0.082	0.364	85.708	11142.000
Do you believe your students have the adequate language skills to understand content taught in English (Other than English classes)	Rural area	46	1.674	0.896	0.132	0.535	102.098	4696.500
	Urban Area	156	1.718	0.995	0.080	0.579	101.324	15806.500

5.4. Classroom Conditions

5.4.1. Teacher Preparedness

Teachers rated how prepared they felt to teach through English-medium instruction (1 = not prepared, 5 = very high). Descriptive statistics by education level are reported in Table 14: Bachelor's (n = 92, M = 3.19, SD = 1.22), Master's (n = 98, M = 3.51, SD = 1.20), and Doctorate (n = 12, M = 4.17, SD = 0.84). Because ratings were obtained on a bounded 5-

point Likert scale and showed distributional departures from normality (visual inspection; Shapiro–Wilk significant in at least one group as shown in table 15), we compared groups using a Kruskal–Wallis test (Table 16), which was significant, $H(2) = 8.69$, $p = .013$ ($\varepsilon^2 \approx .03$, small). Dunn's pairwise comparisons with Holm adjustment (Table 16) indicated that teachers with a Doctorate reported higher preparedness than those with a Bachelor's degree ($z = -2.66$, $p = .024$, rank-biserial $r = .46$). The Bachelor's vs. Master's ($z = -1.88$, $p = .120$, $r = .15$) and Master's vs. Doctorate ($z = 1.78$, $p = .120$, $r = .30$) contrasts were not statistically significant after adjustment. Given the small Doctorate subsample, these results should be interpreted cautiously, but they suggest that teachers with more advanced degrees feel somewhat better prepared for EMI.

Table 14: Descriptives - How prepared do you feel to teach your students using EMI? (5 = very high; 1= not prepared)

What is your highest level of Education?	N	Mean	SD	SE	Coefficient of variation
Bachelor's Degree	92	3.185	1.222	0.127	0.384
Doctorate	12	4.167	0.835	0.241	0.200
Master's Degree	98	3.510	1.203	0.122	0.343

Table 15: Q-Q Plot

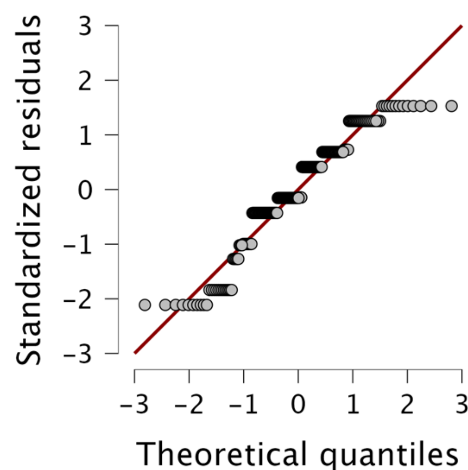


Table 16: Kruskal-Wallis Test and Dunn's Post Hoc

Kruskal-Wallis Test

Factor	Statistic	df	p
What is your highest level of Education?	8.686	2	0.013

Dunn's Post Hoc Comparisons - What is your highest level of Education?

Comparison	z	W_i	W_j	r_{rb}	p	p_{bonf}	p_{holm}
Bachelor's Degree - Doctorate	-2.659	91.288	137.333	0.457	0.008	0.024	0.024
Bachelor's Degree - Master's Degree	-1.882	91.288	106.699	0.153	0.060	0.180	0.120
Doctorate - Master's Degree	1.775	137.333	106.699	0.303	0.076	0.228	0.120

Note. Rank-biserial correlation based on individual Mann-Whitney tests.

5.4.2. Curriculum

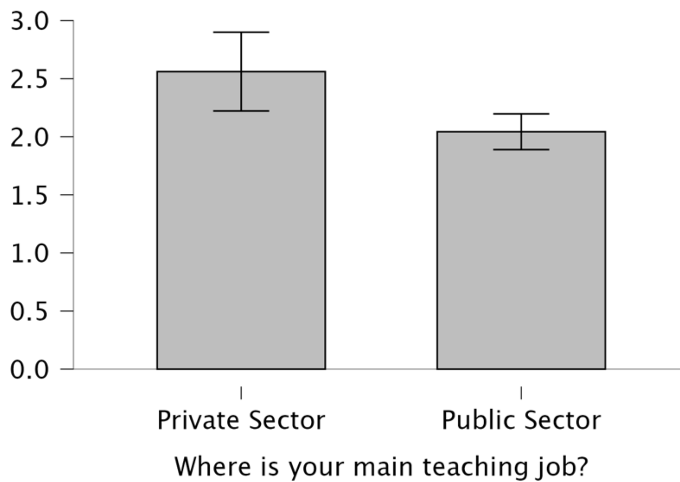
Teachers were not uniformly confident that the existing curriculum can carry an EMI transition: responses were highly non-normal (Shapiro–Wilk $W = .913$, $p < .001$; Table 9), so I report the Mann–Whitney test. A significant school-sector effect emerged ($U = 4217.00$, $p = .004$, rank-biserial $r = .28$, SE = .10), indicating that perceptions of curriculum fit vary meaningfully by context (Table 17). Inspection of group distributions showed a modest shift toward more favorable ratings in the private sector relative to the public sector, though neither group expressed strong consensus that the curriculum is fully EMI-ready (Table 18). Overall, the curriculum appears only partially aligned with an EMI shift, and sector differences suggest uneven readiness that planners will need to address.

Table 17: Mann-Whitney Curriculum Comparison

	U	df	p	Rank-Biserial Correlation	SE Rank-Biserial Correlation
Do you believe that the current curriculum is sufficiently tailored to prepare students for a potential shift to English as a Medium of Instruction (EMI)?	4217.000		0.004	0.278	0.101

Note. For the Mann-Whitney test, effect size is given by the rank biserial correlation.
Note. Mann-Whitney U test.

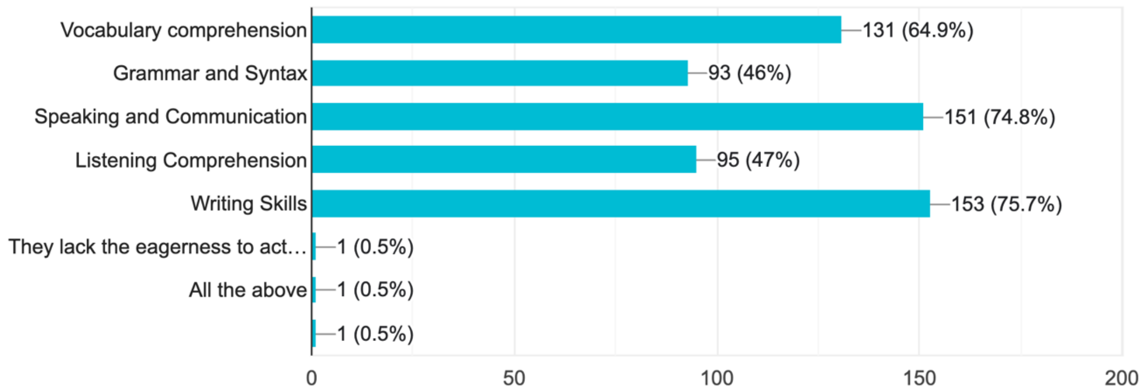
***Table 18, Bar Plots**: Do you believe that the current curriculum is sufficiently tailored to prepare students for a potential shift to English as a Medium of Instruction (EMI)?*



5.4.3. Learning Challenges

Teachers point to multi-skill pressure points when students use English across the curriculum, with productive demands still topping the list (Table 19). In this select-all item (*n* = 202), Writing skills drew the most concern (153; 75.7%), closely followed by Speaking & Communication (151; 74.8%), signalling that generating disciplinary language—on paper or aloud—remains the biggest pinch point for an EMI shift. Nearly two-thirds also flagged the Vocabulary load (131; 64.9%), so subject terminology and academic lexis will need heavy scaffolding. About half of teachers cited Listening comprehension (95; 47.0%) and Grammar/Syntax (93; 46.0%), pointing to additional receptive and form-level strain that could compound output difficulties. A handful of write-ins ("lack eagerness," "all the above," each 0.5%) appeared but do not change the overall pattern. Bottom line: EMI planning cannot stop at translating materials; it must build explicit support for discipline-specific writing, oral explanation, and sustained vocabulary development while shoring up listening and grammatical control.

Table 19: Students Challenges

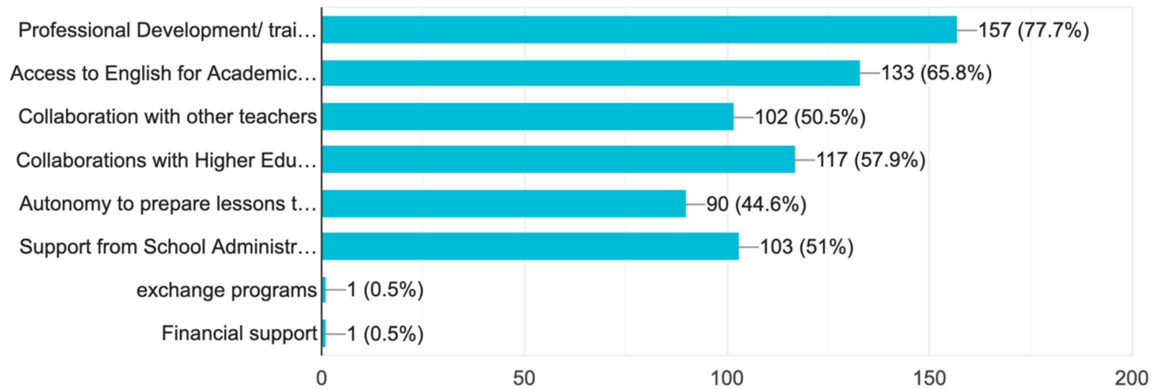


5.5. Teacher Training Needs

5.5.1. Descriptive Responses

Teachers are clear about what would help them get students EMI-ready: professional development tops the list by a wide margin (157 of 202; 77.7%). Next, teachers want access to English-for-academic-purposes materials (133; 65.8%), which fits the earlier finding that vocabulary and discipline-specific language are major student pain points. Cross-institutional partnership matters too—over half asked for collaboration with higher education providers (117; 57.9%), and roughly half want stronger support from school administration (103; 51.0%) and routine collaboration with fellow teachers (102; 50.5%). Some also stressed having greater autonomy to tailor lessons toward EMI goals (90; 44.6%).. In short, teachers are asking for practical, locally actionable supports—training, resources, structured collaboration, and administrative space—to build EMI capacity (Table 20).

Table 20: Teachers' Needs



5.5.2. Teacher Support: Qualitative Analysis

Following Braun & Clarke (2006) thematic analysis, all non-blank responses were read multiple times, inductively coded, and grouped into analytically distinct themes. We defined each of them within its significant context. Two trained coders independently coded a 25 % subsample, achieving substantial agreement (Cohen's κ = .83), after which disagreements were resolved by discussion and the coding scheme finalized. Additionally, we supplemented each category with illustrative quotes from the dataset (See table 21 theme and their descriptions).

Theme	Frequency	In Depth-Description	Sample Quote
1. Curriculum & Materials (ESP)	46	Teachers overwhelmingly call for context-appropriate syllabi and ESP resources that align language and content learning. They emphasize the need for interactive, digitally enriched materials (e.g., subject-specific case studies, authentic texts, multimedia modules) to bridge the gap between language skills and disciplinary understanding.	"Well-designed, thought-provoking curriculum and digital resources to engage students in English and scaffold content learning."
2. Teacher Training & PD	42	A clear demand for specialized EMI training—both pre-service and ongoing in-service professional development. Respondents want hands-on workshops on classroom English, EMI pedagogy, and content-language integration, as well as communities of practice for peer learning and mentoring.	"Workshops on effective EMI strategies, plus follow-up coaching and language-enhancement modules for instructors."
3. Technology & ICT	28	Reliable ICT infrastructure and e-learning tools are seen as critical enablers. Teachers request access to online platforms (e.g., LMS, YouTube MOOCs), classroom tech (projectors, interactive whiteboards), and training in digital pedagogy to support blended or flipped EMI models.	"Access to stable internet, e-learning platforms, and training on how to integrate digital tools into EMI lessons."

4. Collaboration & Support	22	Participants emphasize the importance of institutional backing and collegial networks—from administrative endorsement to cross-departmental teams. They see mentoring, peer observation, and leadership buy-in as essential scaffolds for effective EMI rollout.	"Institutional support: leadership commitment, peer-mentoring groups, and regular EMI-focused faculty meetings."
5. Resource Access	19	Beyond curriculum, teachers need physical resources: up-to-date libraries, equipment (e.g., data projectors), and budget allocations for materials. They link resource gaps directly to their capacity to deliver quality EMI.	"A well-equipped library of English textbooks, labs, and projection equipment to support content delivery."
6. Student Motivation & Engagement	8	A smaller set of teachers points to student buy-in as a determinant of EMI success. They advocate for motivational strategies—such as recognition of progress, incentivized tasks, and affective-support workshops—to sustain learner engagement in an English-medium environment.	"Incentives and engaging activities to keep students motivated when all instruction is in English."
7. Financial/Admin Support	3	A few respondents highlight funding and administrative autonomy—improved salaries, dedicated EMI budgets, and flexible school policies—as prerequisites for systemic, sustained EMI adoption.	"Increased EMI budget lines and administrative flexibility so teachers can choose materials that work."
8. Early Exposure / Policy	2	Some suggest policy shifts at lower levels, such as mandating English in primary school, to build a stronger foundation for later EMI. They position early language exposure as an upstream intervention for long-term success.	"Mandate English in primary education to prepare learners and teachers for eventual EMI in higher ed."
9. Policy Clarity & Direction	1	One participant calls for an explicit EMI roadmap, linking language proficiency targets, continuous assessment, and stakeholder engagement to a clear national strategy.	"A comprehensive EMI strategy with milestones, assessment metrics, and community consultations."
10. Other / Unspecified	37	Includes brief or idiosyncratic responses (e.g., "ESP," "YouTube tutorials," "Don't have anything in mind") that did not fit the above themes but may warrant future exploration.	"ESP." "☆" "YouTube tutorials."

5.6. General Attitudes Towards EMI

Generally, teachers rated students' attitudes toward learning in English somewhat above the midpoint (M = 3.59, SD 0.99, n = 202). Teachers were noticeably more optimistic about the long-term benefits of EMI (M = 4.13, SD = 1.10, n = 202) (Table 21). When going through private-public school dichotomies, private school teachers reported more positive attitudes towards EMI while public school teachers' responses clustered somewhat around midpoint, which proves that enthusiasm to shift to EMI is more prevalent in the private sector (U = 4718.99, $p < .001$), with a moderate, practically meaningful size effect (r = 0.43) that further reinforces the differences illustrated in this research thus far. By contrast, teachers in both sectors share a strong belief in the long-term payoff of EMI (U = 3233.50, p = .829), with a negligible size effect (r = -0.02) (Table 22) . The results indicate a practical gap rather an ideological standoff between teachers in both sectors. Teachers in the public sector support an EMI shift but apparently require more institutional support before such transition is implemented at a national level (See table 23 for comparisons between groups).

Table 21: Descriptive Statistics

	Valid	Missing	Mean	Std. Deviation
How do you perceive your students' attitudes towards learning in English (for non English subjects)?	202	0	3.589	0.990
Do you believe EMI will be beneficial for your students in the long term? (5= very beneficial; 1= not beneficial)	202	0	4.134	1.100

Table 22: Independent Samples T-Test

	U	df	p	Rank-Biserial Correlation	SE Rank-Biserial Correlation
How do you perceive your students' attitudes towards learning in English (for non English subjects)?	4718.000		< .001	0.429	0.101
Do you believe EMI will be beneficial for your students in the long term? (5= very beneficial; 1= not beneficial)	3233.500		0.829	-0.020	0.101

Note. For the Mann-Whitney test, effect size is given by the rank biserial correlation.

Note. Mann-Whitney U test.

Table 23: Group Descriptives

	Group	N	Mean	SD	SE	Coefficient of variation	Mean Rank	Sum Rank
How do you perceive your students' attitudes towards learning in English (for non English subjects)?	Private Sector	41	4.195	0.782	0.122	0.186	136.073	5579.000
	Public Sector	161	3.435	0.980	0.077	0.285	92.696	14924.000
Do you believe EMI will be beneficial for your students in the long term? (5= very beneficial; 1= not beneficial)	Private Sector	41	4.195	0.872	0.136	0.208	99.866	4094.500
	Public Sector	161	4.118	1.153	0.091	0.280	101.916	16408.500

5.7. Concerns around EMI

Following Braun and Clarke's (2006) thematic approach, we conducted thematic analysis on all open-ended responses to the question, "Do you have any concerns arising from a possible shift to EMI in Moroccan higher education?". After an initial reviewing to capture recurring ideas, the data underwent iterative coding whereby codes clustered into themes. The latter were then further refined for clarity and analytical distinctiveness. Two trained coders independently analyzed a 25% subsample, yielding substantial inter-rater agreement (Cohen's $\kappa = .81$); discrepancies were discussed until full consensus was reached, after which the scheme was applied to the remaining data. No new codes appeared in the final tenth of responses, indicating thematic saturation. We provide theme definitions, frequencies, and illustrative quotations to ensure full transparency and analytic validity (See table 24) (Hult & Johnson, 2015).

Table 24: Thematic Analysis of Teachers Concerns

Theme	Frequency	Description	Sample Quote
Attitudes of Acceptance / No Concern	42	Many teachers express no concerns or conditional optimism, provided EMI is well planned and evaluated.	"No concerns at all if the shift is well thought and implemented. Evaluation is also key to help ameliorate any aspect of this language policy."
Student English Proficiency & Readiness	31	Widespread anxiety about students' ability to engage with academic registers of English, risking comprehension barriers and reduced learning outcomes.	"One obvious challenge would be students' poor English proficiency as they may struggle with understanding lessons presented in English."
Teacher Preparedness & Competence	19	Questions about whether faculty possess sufficient English skills and EMI pedagogy to deliver subject content effectively in English.	"Yes, because not all instructors may have the necessary English proficiency or training to effectively teach their subjects in English."
Resource & Material Support	16	Calls for enhanced teaching materials, practical training opportunities, and institutional scaffolds to support both students and teachers during the EMI transition.	"We'll need better resources to make it work but anything is possible!"
Social Equity & Educational Inequality	6	Concerns that EMI may widen urban–rural and public–private divides and exacerbate socioeconomic disparities in access to quality instruction.	"A shift to EMI could widen the gap between students with strong English skills and those from public schools with less emphasis on English."
Quality of Instruction & Learning Loss	6	Fears that a rapid, unprepared EMI rollout will compromise instructional quality, echoing past issues from the French-medium shift.	"If we deal with English the same way we deal with French…we will fail again."
Language Identity & Cultural Preservation	3	Worries that adopting English may marginalize Arabic/Moroccan identity and replay the colonial-era sidelining of local languages by French.	"Yes, mainly cultural concerns…Why should we use a foreign language while we already have a great language like Arabic…This may lead to the demise of the Arabic language."

Theme	Frequency	Description	Sample Quote
Lack of Interest / Motivation	3	A small number of respondents predict student disengagement or simply express indifference toward the EMI shift.	"Lack of interest."
Suddenness of Shift / Gradual Implementation	1	A call for a phased, progressive rollout rather than an abrupt policy change to allow adaptation time at all levels.	"It mustn't be sudden; it should be done progressively starting from lower levels."
Need for Policy Review & Evaluation	1	One teacher emphasizes the importance of continuous monitoring, review, and the possibility to recalibrate or integrate L1 instruction as needed.	"We do need to either evaluate, review, revise, improve then readopt Arabization or think about integrating L1 as a medium…"
Assessment & Fairness	1	The importance of designing fair and valid evaluation practices under EMI to ensure equitable outcomes.	"Evaluation is also key to help ameliorate any aspect of this language policy."

IV. Discussion

Our mixed-methods findings indicate a clear disparity in English proficiency, which reflects broader inequities. Generally, teachers rated their students' English proficiency around moderate midpoint, and those in private schools were rated significantly more proficient compared to their peers in public schools. This disparity resonates with previous studies showing that students coming from lower socioeconomic backgrounds can become "doubly disadvantaged", deprived from both global language and access to knowledge (Bhattacharya, 2013). Our findings indicate that public school teachers rated their students' proficiency about 2.5, closer to the low proficiency threshold specified at 2. In contrast, private school teachers estimated their students' proficiency around 3.2/5, just above moderate proficiency point at 3. While school type represented a significant factor in linguistic readiness, school location played a lesser role—urban and rural teachers provided identical ratings as the statistical tests yielded no significant differences. Another facet that illustrates the differences between private and public high schools is the quality of school curricula. Teachers in both sectors rated the curriculum they are currently using as only partially appropriate for preparing learners to adopt EMI. However, private-school teachers reported a significantly better perception of the curriculum compared to those in the public sector (M = 2.0 vs. M = 2.5). Research in EMI settings emphasizes the importance of secondary school curricula that scaffold students for better integration into EMI programs in higher education (Kim et al., 2024). Resources and proficiency disparities shaped how teachers reported their students' attitudes towards EMI. Private school teachers showed significantly

greater confidence in their students' attitudes towards English as a medium of instruction, while public school teachers reported attitudes ranging from neutral to somewhat positive (M = 4.19 vs. M = 3.43). This finding is not surprising, as EMI research has identified a strong relationship between language proficiency and EMI engagement—that is, more proficient learners tend to exhibit more positive attitudes and participate more actively in EMI programs (Yuksel et al., 2023). The evidence gathered in this research point to deeply rooted gaps in Morocco's educational sphere whereby individuals from more affluent backgrounds benefit from higher quality multilingual education. This further widens epistemic justice divide. Such inequities echo cases in the global south where rapid "Englishization" without equity steering mechanisms has further marginalized the already marginalized. Likewise, our qualitative analysis show that an unchecked EMI transition may as well amplify existing public-private and rural-urban epistemic divides.

While research participants voice support for EMI, they only feel moderately prepared for it. In our survey, responses clustered around the midpoint of preparedness item. It is also worth mentioning that teachers with more advanced degrees (Masters/ Doctorate) displayed greater level of confidence to teach content in English. These findings mirror other studies where degrees represented an important factor in EMI instructors' perceived readiness (Lo & Othman, 2023). Our study did not stop at only identifying issues but also aimed to elicit possible solutions. In this vein, quantitative and qualitative responses build a clear picture of what teachers demand to become "EMI-ready": professional development, English for Academic Purposes materials, stronger collaboration with universities, more autonomy, and administrative support. These demands mirror research globally. Professional Development (PD) studies in EMI settings emphasize the importance of integrated language-content training and strong ESP curriculum development (Macaro et al., 2019). In short, Moroccan teachers call for an EMI support system that includes the following tools: practical EMI oriented workshops, discipline-specific resources, and ICT support. These findings suggest a cautiously optimistic outlook towards EMI where positive attitudes need to be supported by EMI policies that put instructors at the center of any shift.

Crucially, the findings highlight deeply ingrained anxieties about educational equity. Many voiced concerns that an EMI rollout could further "*widen the gap between students with strong English skills and those from public schools*". A common worry was fear of reproducing the same vicious cycle that marred Morocco's French-oriented educational policy. Some teachers cautioned that implementing EMI the same way FMI was enforced is bound to create

another failure, recalling how top-down Arabization/Francization had jeopardized previous reforms. Teachers rang cultural and linguistic alarms, questioning the role of a foreign language in Morocco's educational fabric in the first place. Some respondents demanded revitalizing local languages, mainly Arabic. These concerns require approaching any EMI transition within the framework of epistemic justice. Within Fricker's (2006) concept of *testimonial justice*, EMI risks devaluing the knowledge of both less fluent educators and learners. Equally concerning is EMI's potential to cause *hermeneutical justice*, gatekeeping access to knowledge through denying learners interpretive tools needed to grasp complex concepts. Moroccan High school English teachers seemed to intuitively grasp this: they warned that a top down, under-resourced shift to EMI is bound to recreate an epistemic divide (R'boul, 2024). International studies mirror our findings: Phyak & Sah (2024) discuss how Nepal's EMI policy "misrecognizes" indigenous students' linguistic knowledge, constructing a deficit identity by stigmatizing their native languages. In other words, an EMI shift might risk rendering itself an instrument of linguicism, reproducing colonial power hierarchies through language (Skutnabb-Kangas, 2015). Translanguaging promises a possible solution to this issue. Zheng and Qiu (2024) recommend what they labelled 'transitional EMI classes' where teachers and students communicate in multiple languages. Doing so can effectively counter testimonial justice and provide the necessary "hermeneutical resources" to ensure equitable learning. For Morocco's pending EMI transition, this implies that valuing Arabic/ Tamazight, through bilingual materials or code switching, could effectively mitigate injustices. Our data shows that teachers have demonstrated nuanced concerns about an EMI shift, including-but not limited to classroom performance, identity, and epistemic injustices.

Approaching these issues through foresight underscores the need for strategically equity-oriented planning. Rather than hastily implementing a one-size-fits-all policy, a futures-oriented approach would leverage our data to envision scenarios—identifying those to avoid and those to pursue (Voros, 2003). Applied to Morocco, this means constructing narratives such as (a) a rapid nationwide English shift with minimal support versus (b) a gradual, mixed-language pathway accompanied by aggressive investment in a support system anchored by instructors and students from all backgrounds. Collectively simulating such scenarios allows stakeholders to anticipate educational outcomes. Our study represents an environmental scan—a reality check, that captures readiness gaps and teachers' concerns, providing raw data for such scenario-building. Not only our study has scanned the terrain for possible issues, but it has also extensively elicited a range of tools that can inform

creating preferable future scenarios—where English as a medium of instruction functions as a gateway to high-quality education rather than a gatekeeper preserving an inequitable status quo. In practice, foresight would mandate inclusive stakeholder engagement. UNESCO notes that foresight laboratories "include voices from all walks of life" to diversify perspectives (UNDP, n.d). In this regard, Moroccan policymakers should actively involve teachers (especially in under-resourced ones), students, and civil society in crafting the EMI transition roadmap. Following such approach upholds epistemic justice by empowering those who are typically sidelined.

V. Research Implications

We have dispersedly suggested some research implications in the discussion part. The following section offers several recommendations for a less problematic shift to EMI. An immediate area of attention is monitoring equity indicators throughout public vs private, rural vs urban divides. Establishing an even playing EMI field begins by reducing the disparities in language proficiency between students from different backgrounds. To achieve this goal, authorities should recognize the legitimacy of teacher and community concerns—ignoring them risks tangling Morocco's educational system in another epistemic injustice cycle. Instructors are the spearhead of educational change (Livingston, 2016). Therefore, substantial investment should target English-for-Academic-Purposes curricula and digital resources in public schools, as well as mandated EMI training programs for teachers (both preservice and in service) as recommended by the literature (Macaro et al., 2019). Shifting to EMI should not come at the expense of local languages. Any transition needs to take into consideration Morocco's rich linguistic fabric—otherwise, we risk linguicism permeating Morocco's education. Rather than creating the conditions for English to become a homogenous language, language policy should leverage EMI as just another tool under teachers and students' belts—not the only tool. An important aspect of this research is its foresight framework—it offers valuable tools that stakeholders can use to sketch future

scenarios. One possible way of doing this is participatory workshops focused on training teachers for EMI. Framing this research within epistemic justice allows us to view an EMI shift with an equity-sensitive approach—one that seeks to include rather than exclude. Additionally, the principle of foresight offers a 'crystal ball' for anticipating the future of educational policy in Morocco, where avoiding past pitfalls becomes a deliberate and achievable goal.

VI. Research limitations and recommendation for future research

This research has attempted to provide a comprehensive study of Morocco's high school English teachers. Still, it has its own limitations. First, while practically meaningful (n = 202), future studies could benefit from larger sample size. In the same vein, most of the respondents were from public and urban areas (n = 156 and n = 161 respectively). Future research should aim to include a larger sample size from those categories. Additionally, while the 1-to-5 self-reported scale was useful for exploratory purposes, it does not constitute a precise measure of language proficiency. Future research could apply more quantitatively robust language assessment tools to capture the exact areas of language proficiency disparities and address them. This research offered valuable tools to better prepare Moroccan students for a future EMI shift. Future studies should use our insights to test the efficacy of the tools recommended herein.

VII. Conclusion

This study set out to determine what Moroccan high-school English teachers think about a transition to EMI, and their answers are nuanced. While teachers acknowledge EMI's potential to advance Morocco's education system, they also point to significant differences in English proficiency—most notably between private- and public-school students. If left unaddressed, these gaps could recreate the very epistemic injustices proponents of EMI seek

to dismantle. Without deliberate, equity-oriented scaffolds and sustained teacher development, EMI risks metamorphosing into a gatekeeper rather than a gateway.

By marrying epistemic-justice theory and foresight methodology, we elicited actionable, teacher-generated tools that can guide a "safely" phased implementation. This study therefore offers a rich repository of resources that, if applied systematically, can mitigate the identified inequities. Future work should leverage these tools in a foresight-controlled rollout. Morocco's pivot to EMI need not repeat history: if decision-makers prioritize the schools and teachers highlighted here, EMI can become one tool among many in Morocco's richly plurilingual repertoire—opening doors rather than erecting new linguistic barriers.

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