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Transnational Higher Education Cultures and Generative AI: A Nominal Group Study for Policy Development in English Medium Instruction

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<u>Transnational Higher Education Cultures and Generative AI: A Nominal Group Study for Policy</u> <u>Development in English Medium Instruction</u>

Abstract

Purpose

An evidence-informed framework was developed to facilitate the formulation of Generative Artificial Intelligence (GenAI) academic integrity policy responses for English Medium Instruction (EMI) higher education responding to both the bespoke challenges for the sector and longstanding calls to define and disseminate quality implementation good practice.

Design

A virtual nominal group technique engaged experts (n=14) in idea generation, refinement and consensus building across asynchronous and synchronous stages. Resulting qualitative and quantitative data were analysed using thematic analysis and descriptive statistics, respectively.

Findings

The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education is not a definitive mandate but represents a roadmap of inquiry for reflective deliberation as institutions chart their own courses in this complex terrain.

Originality

The novel blueprint represents a step towards bridging concerning gaps in policy responses worldwide and aims to spark discussion and further much-needed scholarly exploration to this end.

Research Limitations

If repeated with varying expert panellists, findings may vary to a certain extent; thus, further research with a wider range of stakeholders may be necessary for additional validation.

Practical Implications

Whilst grounded within the theoretical underpinnings of the field, the tool holds practical utility for stakeholders to develop bespoke policies and critically re-examine existing frameworks.

Social Implications

As texts produced by students using English as an additional language are at risk of being wrongly accused of GenAl-assisted plagiarism, owing to the limited efficacy of text classifiers such as Turnitin, the policy recommendations encapsulated in the blueprint aim to reduce potential bias and unfair treatment of students.

Key words: generative artificial intelligence; English as a medium of instruction; higher education; academic integrity policy development; nominal group technique.

Introduction

Technology has long played a vital role in enhancing language education to which the accumulative research of Computer-Assisted Language Learning undoubtedly attests (cf. Lim and Arayadoust, 2022).

In this domain, developments from tape recorders to language learning apps have historically aided students and teaching practitioners in cross-cultural contexts to foster linguistic skills development (Tafazoli *et al.*, 2018; Zhao and Lai, 2022). However, the advent of generative artificial intelligence (GenAl) tools represents a seismic shift (Kohnke *et al.*, 2023), providing unprecedented writing capabilities to novice language learners. This, in turn, calls into question the legitimacy of their use in this sphere, in which individual language proficiency assessment is at its very core (Authors, 2023). This apprehension is in line with the wider debate in other education settings around assessment validity and integrity (e.g., Chan, 2023; Grassini, 2023; Rudolph et al., 2023), whilst others have addressed GenAl's potential benefits as a learning aid (e.g., Baidoo-Anu and Owusu Ansah, 2023; Escotet, 2023). Understanding this complex landscape requires examining the interplay between technology, language pedagogy, and academic integrity standards (UNESCO, 2021), particularly in transnational academic cultures at a time of rapid change.

The concerns raised are particularly acute in higher education (HE) contexts where assessments are high-stakes and foundational to degree conferral. This owes principally to the risk that GenAl text generators offer the possibility of conjuring up coherent, human-like text on virtually any topic with just a simple prompt, raising concerns about plagiarism and cheating on assignments and exams (Okaiyeto *et al.*, 2023; Tindle *et al.*, 2023). One setting that appears to be particularly vulnerable in this regard is English Medium Instruction (EMI) HE (Moore, 2023). The propagation of EMI worldwide embodies the emergence of transnational academic cultures (Taguchi, 2014), where universities promote English as a lingua franca despite it not being the native language of most students or faculty (Murata, 2019). This reflects broader global neoliberal movements enacting shifts toward internationalisation, student mobility, and greater cultural diversity in higher education (Bao *et al.*, 2019). However, as Sabaté-Dalmau (2020) rightly points out, it also entails tensions between local norms and globalised academic practices. As universities navigate this complex terrain, perspectives from diverse stakeholders are imperative in developing equitable, culturally-responsive policies.

Assessments in EMI settings aim to evaluate both content knowledge and linguistic capacity development but are often characterised as being problematic, given that they present longstanding challenges. For instance, the potential conflation of assessing language proficiency and subject knowledge when assessing students, the need for clarification of assessment focus, be that language, subject knowledge, or both, and the choice of assessment methodology that allows for the assessment of subject-specific knowledge and academic language skills development (Inbar-Lourie, 2022). The availability of GenAI technologies fundamentally undermines this aim and adds further complexity to the challenges faced, by allowing students to potentially circumvent the language requirement (Authors 2, in press). In addition, other related issues serve only to muddy the waters even further.

Text classifiers, such as Turnitin, initially well-received as a deterrent or silver-bullet solution to the problems posed (Ismail and Jabri, 2023), have proven to fall notably short of the promises made according to emerging scholarly literature (e.g., Chaka, 2023; Weber-Wulff *et al.*, 2023). Scholars have sounded the alarm on their inefficacy when dealing with work produced by learners who use English as an additional language. This has been highlighted as particularly susceptible to the generation of false positives by the software which leads to the erroneous classification of it having been produced by GenAl apps (Ibrahim, 2023; Liang et al., 2023).

In this landscape, owing to the challenges of GenAI in EMI HE assessment and, ultimately, as a means of fortifying the creation of transnational academic integrity cultures (Çelik and Razı, 2023), the researchers sought to create an evidence-informed framework to stimulate GenAI academic integrity policy development in EMI HE contexts. Furthermore, this also responds to one of main recommendations of a recent British Council-commissioned report into EMI policy implementation, which articulated the need "to create clear and effective evaluative systems to ensure quality implementation of EMI courses and to share good practices" (Rose *et al.*, 2020, p. 28). Through the gathering of expertise, in this paper, the authors intend to create a blueprint which can contribute to shaping policies that monitor emerging risks while supporting all students in reaching their academic potential.

Literature Review

EMI Policy Development

The development and implementation of an EMI policy in HE, as Walkinshaw et al. (2017) contend, represents much more than a mere shift in the language of instruction. Its adoption also entails a broader transfiguration of the underlying geopolitical, economic, and ideological forces that shape the university landscape. However, the formulation of such policies is not without difficulty. These are often the compromise of political resistance and acceptance towards EMI, leading Blattès (2018, p. 13) to emphasise that they should be understood "not as a politicolinguistic object but as a process and site of struggle". Highlighting the limitations of technocratic top-down planning, limited academic community input may lead to significant gaps between policy and practice, with offerings of one-size-fits all approaches that do not consider disciplinary differences often found to be pedagogically unsound or socially problematic (Airey et al., 2015). For instance, Kamwangmalu (2013, p. 325) writes of EMI policy failure in African public schools to achieve its aims of enhancing the literacy rate and increasing "opportunities for the populace to participate in the socioeconomic and political development of the continent".

The transition from theoretical framing to practical implication has brought forth what Rana and Sah (2023, p. 48) term "unplanned critical consequences", which ofttimes go unexamined in the pertaining literature. Evidence in scholarship exposes transnational cultural tensions on matters such as the creation or perpetuation of socio-class factions (Tupas and Matila, 2023), owing to EMI policies that do not account for systemic educational inequalities, thus not enabling the full range of students in HE (Mahboob, 2017). Furthermore, Sah (2020, p. 742) acknowledges that "EMI is ideologically perceived as a means of acquiring the linguistic capital, often believed to provide access to the global economy; and, therefore, a liberating tool for socioeconomically minoritized groups". However, in line with other scholars, he asserts that this perception is juxtaposed to the transnational cultural realities in which English, as the dominant global language, has attained a hegemonic status while local languages are being relegated to a lower status of second order importance (Poudel and Choi, 2020; Tran and Nguyen, 2018). Considering this, scholars such as Manan et al. (2021, p. 88) have called for an epistemic reorientation in which "the social-market value of languages and social-welfare considerations may become the basis" of EMI policy development activity. To this end, in agreement with Ou et al. (2021), they emphatically call for practitioners in the field to work as agents of change to raise awareness amongst key stakeholders and policymakers to address structural inequalities inherent in policy development.

EMI and Academic Dishonesty

In addition to the assessment challenges highlighted in the Introduction, there are other issues of contention in EMI HE academic integrity, which pre-date those pertaining to GenAI tools. Although EMI-specific literature is scarce in this area, prompting calls for further investigation (e.g., Sah, 2022), this context is evidently susceptible to established academic misconduct practices, such as direct, mosaic, or self-plagiarism (Bretag and Mahmud, 2009), collusion (Parkinson *et al.*, 2022), and contract cheating (Newton, 2018). Notably, since the Emergency Remote Teaching of the COVID-19 pandemic, scholars suggest that culturally there has been a documented decrease in academic integrity adherence (Eshet, 2023; Sevimel-Sahin, 2023). In addition, EMI HE, as with other analogous settings, has long contended with the challenges posed by a less mediatic predecessor to ChatGPT, that is machine translation.

Groves and Mundt (2021) draw on previous reservations documented in research, which illustrate that "teachers tend to view [machine translation] with caution, in particular in terms of the acceptability of its use" (p. 3). At the core of their argumentation is the premise that such tools may be exploited as a meaning of circumventing the language learning process inherent in increasingly internationalised education models. The alignment here between machine translation and GenAI tools and their implications for EMI and similar education settings is saliant. Furthermore, both in this

article and a previous publication (Mundt and Groves, 2016) some five years earlier, the scholars emphatically call for HE academic integrity policies to be urgently revised to include provision to regulate machine translation tool usage. The insistence half a decade after their 2016 publication may seemingly indicate that higher education institutions (HEIs) have been slow off the mark to respond to this issue in an effective way. This ties in with documented concerns to this end on institutional legislative decision-making speed in contrast to the fast-paced evolving GenAI panorama (Foltynek *et al.*, 2023).

GenAl Academic Integrity Policy Panorama

Our understanding of the complexity of the issue at hand continues to unfold and yet many HEIs have put into place GenAI academic integrity policies and guidance around the world. Krammer and McKenna (2023, p.2) have characterised the formulation of these responses as symptomatic of the "police-catch-punish" approach in a collective "knee-jerk reaction" to bolster assessment security. Whilst there is undoubtable generalisability to such claims, in line with Perkins and Roe (2023), in the over 140 academic integrity policies analysed, a substantial lack of coverage was given to the particularities of GenAI technologies.

Xiao *et al.* (2023) sought to analyse legislative responses from the top 500 universities as per the QS rankings, and, in support for the findings of Perkins and Roe (2023), underlined that only 26% of these institutions had implemented an academic integrity policy specific to GenAl tools. They delineate two opposing positions within their findings: 67% of policies advocate regulated usage of GenAl in higher education, whilst 33% imposed an outright prohibition. A study of greater thematic proximity penned by Authors 2 (in press) also explored initial HEI policy responses. These scholars found that in a corpus of 131 policies, only 4 documents were found to address the particularities of English as an additional language learners in HE in some way, and, at the time of writing, the authors were unable to locate any specific examples for EMI settings.

Research Questions

Considering the multifaceted complexity of the challenges posed by GenAI systems for EMI HE settings, together with the gaps highlighted in policy response, to fulfil the research objective of creating an institutional policy blueprint, the following research questions (RQs) were defined:

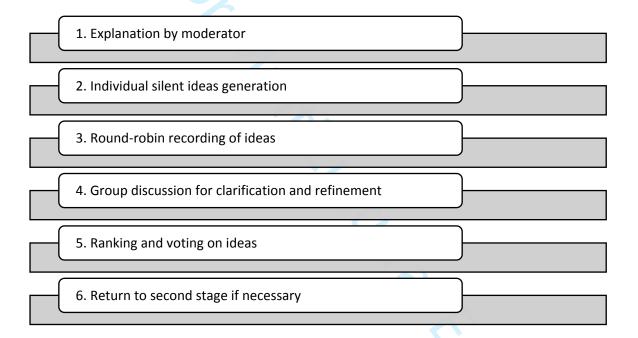
- RQ1) What key dimensions should be conceptualised in an institutional blueprint to regulate generative AI use in English-medium instruction higher education according to experts in the field?
- RQ2) What expert consensus can be reached on the descriptors to operationalise each of the key dimensions?

Methodology

Design

To address the RQs, it was decided that a mixed methods methodological approach that enabled interdisciplinary expert knowledge building, refinement, and consensus consolidation was needed. The nominal group technique (NGT) is one such established methodology that firstly facilitates structured individual idea elicitation, the fruits of which are then subjected to group discussion, and finally, the empirical aggregation of private rankings of individual preferences then determines the outcome (Manera *et al.*, 2019). Figure 1 below outlines the design architecture of a traditional NGT study:

Figure 1: Traditional NGT Synchronous Research Design

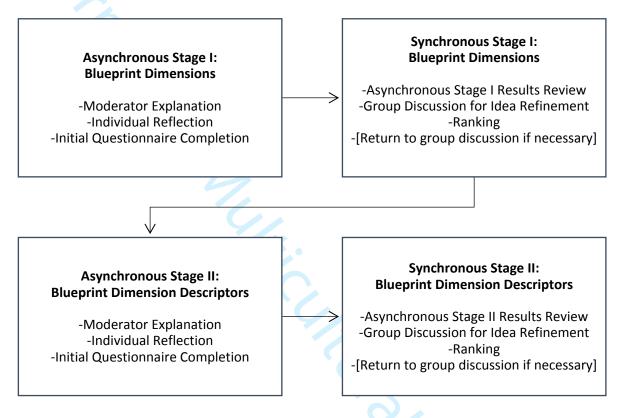


In the NGT, as with similar methodologies such as the Delphi method, there are several associated shortcomings (Bhandari and Hallowell, 2021), which include elevated time investment and reduced organic interaction owing to the highly structured nature of the procedure. Since expert selection impacts results, outcomes can vary substantially between studies using different experts, prompting critiques about reliability (Dorussen *et al.*, 2005). Furthermore, group decision-making can be impaired by problematic tendencies, i.e. the bandwagon effect, susceptibility to manipulation by forceful members, and reluctance to change opinions when others are present (Asmus and James, 2005).

In accordance with Humphrey-Murto *et al.* (2023), the virtual nominal group technique (vNGT) is an adaptation of the methodology which convenes geographically dispersed participants online through

video conferencing and collaborative editing platforms with "many researchers having pivoted to online modalities since the 2019 COVID19 pandemic" (p. 6). Moreover, the range of digital tools available to facilitate its implementation offer notable affordances such as the rapid sharing and structuring of ideas (Khurshid *et al.*, 2023). The research design used here is illustrated in Figure 2 below:

Figure 2: Research Design Architecture



Participants

The authors rigorously delineated selection criteria for identifying experts based on three primary dimensions: knowledge, experience, and pedagogical policy development responsibility. The operationalisation of these dimensions is articulated in the criteria outlined in Table I below:

Table I: Summary of Inclusion and Exclusion Criteria

The expert panel was formed per the inclusion/exclusion criteria in Table I. In total, 37 potential experts were directly contacted via email. This included a participant information sheet outlining the key research aims, design, and benefits of participating. Of those contacted, 14 agreed to participate, while 9 declined due to limited availability and others did not respond.

The group of experts included members from Canada, China, Germany, Spain, United Kingdom, and USA. There was a gender distribution of 11 females and 3 males. The use of both asynchronous and synchronous stages allowed for participation in the first stage of those who were unable to attend the live sessions. To that end, the asynchronous stage 1 sample is empirically greater (n=14) than that of the synchronous stage 2 (n=11).

Data Collection

This study utilised a multi-stage technique for gathering both quantitative and qualitative data from the expert panel. This progressively focused the experts from initial asynchronous idea generation towards ranking and voting on ideas synchronously, providing structure to funnel perspectives whilst allowing flexibility for open discussion and elaboration. The initial broader qualitative phase facilitated critical reflection, while the concluding quantitative voting phases provided focused evaluative data for analysis.

Specifically, qualitative data were gathered through responses to 12 open-ended questions in an initial asynchronous questionnaire. This allowed for initial broad commentary from the experts. Additional qualitative data were collected through the open-ended generation and discussion of ideas in the subsequent synchronous stages. Quantitative data were collected through the process of voting and ranking of ideas carried out as the final procedure of each synchronous stage. This allowed for numerical prioritisation of the experts' perspectives on the key topics as their opinions solidified over the iterative rounds.

Data Analysis

The qualitative open-ended survey responses and focus group transcripts were analysed using thematic analysis. This involved an inductive, data-driven approach to identifying salient themes and patterns of meaning. The data were coded by assigning descriptive labels to relevant passages. Codes were compared, contrasted, and refined into a codebook. Broader categories, themes and sub-themes were developed by examining intersections and relationships between codes and representative quotations for each theme were extracted.

The quantitative data obtained from the ranking were analysed using Cohen's kappa coefficient (κ) to determine the degree of agreement. Items having a kappa coefficient (κ) of less than 0.74 were not carried over into the next stage of the study process, since the expert panellists' threshold for consensus for each item was set at or above a value of 0.75. Considering this, the data shown in Table II below was interpreted:

Table II: Cohen's kappa Coefficient Interpretation for Strength of Agreement

Results

Defining Dimensions (RQ1)

The initial asynchronous questionnaire was completed by 14 experts, and the dimensions suggested to include in the blueprint were as follows:

Table III: Asynchronous Stage 1 Idea Generation Findings

Whilst respondents used slightly different phraseology to articulate these dimensions, It is interesting to note that there was convergence on the first five dimensions in the table. Student and faculty support was also a saliant response, although to a slightly lesser extent. The notable exception to this is the suggestion of consequences and penalties, which was mentioned less frequently.

Synchronous Stage 1

The results, as reported in Table III above, were then reviewed and subjected to discussion amongst the expert participants in this synchronous stage in which 11 expert panellists were able to partake. In the discussion there were several main themes identified which included the amalgamation of the dimensions of policy scope and key definitions of GenAI academic misconduct in relation to EMI HE, as is illustrated from the following extracts:

I think we need to be careful not to separate policy scope from the key definitions around AI and academic misconduct. They are interconnected from where I stand. [SS1.24]

I agree entirely. Scope should flow directly from the nuanced definitions, not the other way round. [SS1.25]

A similar theme was identified in the realignment of the initial dimension suggestions, which divided implementation and management, making way for the creation of the development and implementation and compliance and management dimensions put forward for the final ranking. Extracts below illustrate excerpts from the discussion maintained on these points:

I think it would make much more sense if we put development and implementation on the one hand and management in an entirely different segment. [SS1.104]

Well there is certainly much more interconnectivity that way. [SS1.105]

Furthermore, it was also put forward that student and staff support provision would be better conceptualised as a descriptor of the development and implementation dimension, as is illustrated in the following extracts:

In our initial thinking, student and staff support was its own policy dimension. But I wonder if it fits better as part of development and implementation. [SS1.189]

I was thinking along the same lines earlier. Support provision seems inextricably linked to how the policy is developed and put into practice. [SS1.190]

Subsequently, the participants then proceeded to rank the modified dimensions as per their discussion together with those which were originally proposed. The outcome is detailed in Table IV below:

Table IV: Synchronous Stage 1 Results

Defining Dimension Descriptors (RQ2)

In the subsequent phase of the study, attention shifted to defining the descriptors which operationalise the dimensions that were agreed. The findings from the initial questionnaire are detailed below in Table V:

Table V: Asynchronous Stage 2 Idea Generation Findings

Synchronous Stage 2

Intriguingly, the discussion amongst expert participants took place with general agreement expressed on all descriptors put forward to operationalise the blueprint dimensions. However, as the interaction progressed, an additional theme was identified that centred on a new descriptor proposal for the compliance and management dimension, as illustrated in the following extracts:

I think recommending a cross-departmental team to monitor GenAl developments would be prudent. It could give us valuable foresight into changes that may warrant policy adjustments. [SS2.63]

These policies are going to be living documents. Well, they all are really, but the way things change so quickly with these tools, I think that this is more important than ever. [SS2.66]

The results from the subsequent ranking of agreement are detailed in Table VI below:

Table VI: Synchronous Stage 2 Results

Discussion

The expert-informed creation of the key dimensions and descriptors which constitute The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education responds to the sector-wide call articulated by Rose *et al.* (2020) to disseminate good EMI policy practice. This tool has been as a means of fortifying the creation of transnational academic integrity cultures (Çelik and Razı, 2023)

in line with the multifaceted GenAl-related challenges for EMI HE Assessment discussed previously (Authors 1, in press) and the cultural shift in heightened technology use for academic misconduct purposes (Eshet, 2023). As HEIs continue to formulate policy responses to this phenomenon (Perkins and Roe, 2023; Xiao *et al.*, 2023), it is hoped that the tool will act as an informative contribution that sparks reflective deliberation amongst key stakeholders and policy makers. The considered and measured nature of the tool's unrushed development forged through the vNGT that encompassed expert idea generation, refinement, and consensus consolidation is a strength which starkly contrasts to the "knee jerk reaction" approach to policy formulation that Krammer and McKenna (2023, p. 2) critique.

This instrument's specific focus on EMI settings is of evident practical utility for these contexts; however, there is scope for this to be used more broadly, too. As the concerns of potential social inequality highlighted earlier regarding EMI student produced work and GenAI text classifiers (Liang et al., 2023; Weber-Wulff et al., 2023) are specifically addressed in the blueprint, this tool may also be of use for non-EMI HE settings to ensure that these students are justly catered for in policy responses. This is further reinforced by the explicit acknowledgement of machine translation technologies, which is of relevance to English as an additional language by students both in EMI and non-EMI HE settings and responds to long-standing calls for HEIs to address this (Groves and Mundt, 2021; Mundt and Groves, 2016). Considering the increasingly transnational nature of HE and the emergence of global academic cultures, ensuring equitable and culturally responsive academic integrity policies is imperative, and this tool represents a means of taking a further step to ensure that any such cultural inequalities do not go unaddressed. This point is of even greater significance when considering the remarkable lack of provision given to international students in GenAI academic integrity policies found in an earlier study penned by Authors 2. (in press).

The bottom-up approach taken here to the elaboration of the blueprint highly contrasts with the top-down imposition of EMI policy often found to be pedagogically and socially problematic (Airey *et al.*, 2015) and ineffective in practice (Kamwangmalu, 2013). In short, the very nature of the blueprint is conceptualised as guidance to spark reflection as opposed to a mandatory regulatory imposition. The gathering of EMI experts to produce the guidance encapsulated within the resulting tool responds to Ou et al.'s (2021) calls for greater practitioner involvement in the policy development process, marking a transnational cultural change in the locus of control that conceptualises expert practitioners as agents for change to drive bottom-up policy offerings, in accordance with Manan et al. (2021). In other words, It represents a move away from monolithic top-down imposition of EMI policy, towards context-sensitive guidance developed collaboratively by practitioners with localised expertise.

As previously elucidated, EMI policy has ideological underpinnings and colonial origins that mask critical unintended consequences (Rana and Sah, 2023), perpetuating inequality (Mahboob, 2017; Tupas and Matila, 2023) and transnational cultural tensions such as English attaining a hegemonic status while local languages are relegated to a status of lower importance (Poudel and Choi, 2020; Tran and Nguyen, 2018). Further application of such bottom-up approaches incorporating local perspectives may help to take steps towards overcoming these systemic cultural injustices and spur wider reflection on assumptions underlying EMI policy implementation. In further alignment with Manan *et al.* (2021), this novel instrument embodies the epistemic reorientation in which "the social-market value of languages and social-welfare considerations may become the basis" of EMI policy development activity that they called for (p. 88). For instance, this is operationalised in the articulation of English for Academic Purposes support provision, the inclusion of student voice in policy conceptualisation and review, and the acknowledgement of EMI student work susceptibility to GenAI text classifiers.

Limitations

This study is not however without limitations. The documented constraint of limited participant availability was successfully addressed by incorporating a first asynchronous stage in the research design, allowing busy expert participants to contribute to a certain extent. However, in accordance with Bhandari and Hallowell (2021), discussion remained structured and opportunities for organic discussion were limited. Every effort was made to ensure that no single participant was allowed to dominate interaction at any given time, nevertheless, the authors cannot be certain that the results have not been affected by the bandwagon effect or the reluctance to change their opinions in the presence of others (Asmus and James, 2005). Moreover, even though the recruitment of participants was carried out strictly in accordance with the inclusion and exclusion criteria outlined previously, as Fink-Hafner et al. (2019) note, if the exercise were repeated with different expert panellists the results may be different.

Future Directions

In addition, further scholarly investigation into the efficacy and applicability of the proposed academic integrity framework across diverse international higher education contexts is imperative. Comparative analyses between specific countries and regions would illuminate the transferability of the framework and allow for greater contextualisation to local needs. Moreover, perspectives of additional stakeholders, including students, EdTech firm representatives, and others could be examined to strengthen the validity of the framework. Additional research could also take a similar methodological approach to develop specific quality assurance tools for GenAl academic integrity policy management

in EMI HE contexts. Additionally, the creation of tailored resources to uphold EMI quality assurance standards in relation to academic writing, assessment design, and grading is essential is a further avenue which is highly recommended.

The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education
The definitive iteration of the blueprint is presented in Figure 3 below:

Figure 3:

- Establishment of values to be upheld, i.e. academic honesty, equitable treatment of all.
- Aim to develop EMI students' skills, not just penalise GenAI misuse.
- Reasonable flexibility to account for rapid evolution of GenAI technologies.
- Definition of expectations for students and faculty, establishing exemplars for best practice, e.g. for text finessing if appropriate.
- · GenAI tool disclosure in all knowledge work.

Core Values & Principles

- Clear articulation of the pedagogical particularities of EMI learners in relation to enhancing GenAI tool capabilities.
- Definition of GenAI-assisted academic misconduct in EMI contexts.
- Guidance on the use of AI text generators with acknowledgment of their potential limitations and EMI student vulnerability.
 - Direction on possible approaches to assessment redesign and evaluation.

Scope & Definitions

- Regular internal and external policy reviews and EMI community consultations.
- Compliance & Management
- Creation of an interdisciplinary working group to monitor emerging GenAI developments and capabilities for policy effectiveness assessment.
- Establishment of an oversight board empowered to address violations, outliers and appeals for reasonable policy flexibility, whilst also attending to the root causes behind these.
- Students and faculty should receive orientation and updates on evolving institutional stance regarding GenAI text generators including clear guidelines of best practice, FAQs, ethics training, and academic misconduct avoidance instruction.

Development & Implementation

- Inclusion of EMI student and faculty voice in collaborative policy development.
- Creation of a management framework for GenAiassisted academic misconduct in EMI coursework and dissertation production.
- Production and dissemination of educational resources to support student linguistic capacity development with and without the use of GenAI tools.
- Pre-sessional and in-sessional English for Academic purposes should be used as an additional means of student support.

Conclusion

As the wider sphere of education continues to digest the implications of GenAl tools for academic integrity (Okaiyeto et al., 2023; Tindle et al., 2023), the dual assessment focus on linguistic proficiency and subject knowledge has marked EMI out as a particularly susceptible area. This is owing to the possibility for students to circumvent the language learning process entirely if GenAl tool usage were left unregulated (Authors 1, in press). In this field, assessment per se has been traditionally conceptualised as problematic in practice (Inbar-Lourie, 2022) and limited attention has been given to this in scholarship (Sah, 2022). Nevertheless, the juxtaposition between the scarce attention to English as an additional language learners found in HEI GenAl academic integrity policy responses thus far (Bannister *et al.*, 2023; Perkins and Roe, 2023; Xiao *et al.*, 2023) and the susceptibility of such students

work to being erroneously classified as GenAl-produced, brought to fruition the conceptualisation of the present paper.

In sum, this study has presented the first known academic integrity policy framework specifically tailored to EMI HE settings in response to these emerging GenAl developments. The GenAl Academic Integrity Policy Development Blueprint for EMI Higher Education has been formulated through structured engagement of specialist expertise to stimulate critical deliberation and to inform ethically robust institutional policies. Whilst perhaps in need of future revision in line with the changing capabilities of advancing GenAl technologies, this novel instrument represents an important first step in addressing concerning gaps in existing policy frameworks. The bottom-up approach to the tool's creation through expert consultation ensures its recommendations are rooted in practical experience and grounded understanding of realities in EMI contexts. As transnational cultural tensions undoubtedly continue to increase on par with ever-increasing GenAl technological capabilities, upholding academic rigour whilst safeguarding EMI students must remain the unwavering guiding priority in academic integrity policy development.

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Authors 1 (in press)

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Table I: Summary of Inclusion and Exclusion Criteria

	Inclusion criteria	Exclusion criteria
Knowledge	-Has doctoral training.	-Does not have doctoral training
	-Has a considerable number of relevant	-Has not published at least 5 journal
	academic publications such as journal	articles or book chapters on relevant
	articles and book chapters.	topics.
	-Has knowledge of policy development on	-Does not have knowledge of policy
	e-learning, digital ethics, and/ or academic	development on e-learning, digital
	integrity together with understanding of	ethics, and/ or academic integrity,
	EMI assessment procedures, and the	together with understanding of EMI
	possible AI threats.	assessment procedures and the possible
		Al threats.
Experience	-Has a six-year period of research and	-Does not have a six-year period of
	university teaching.	research and university teaching.
	-Has at least 5 years' experience in EMI.	-Does not have extensive at least 5
		years' experience in EMI.
Pedagogical	-Holds a university position of pedagogical	-Does not hold a university position of
Policy	policy development responsibility.	pedagogical policy development
Development	-Has previously contributed to the design	responsibility.
Responsibility	and implementation of EMI assessment	-Has not previously contributed to the
	procedures.	design and implementation of EMI
		assessment procedures.

Table II: Cohen's kappa Coefficient Interpretation for Strength of Agreement

Cohen's kappa coefficient (κ)	Strength of agreement
< 0.00	Poor agreement
0.00 - 0.20	Slight agreement
0.21 - 0.40	Fair agreement
0.41 - 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 1.00	Almost Perfect agreement

Table III: Asynchronous Stage 1 Idea Generation Findings

Proposed Dimension		Frequency
Core values and principles	14	
Policy Scope	12	
Key definitions of GenAl academic misconduct	10	
in relation to EMI HE		
Policy development processes	10	
Implementation and management	8	•
Student and faculty support provision	7	
Consequences and penalties	1	

Table IV: Synchronous Stage 1 Results

Proposed Dimension	Strength of Agreement
Compliance and management	Almost perfect agreement (κ= 1.00)
Development and implementation	Almost perfect agreement (κ= 1.00)
Core values and principles	Substantial agreement (κ= 0.80)
Scope and definitions	Substantial agreement (κ= 0.76)
Policy Scope	Poor agreement (κ= 0.00)
Key definitions of GenAl academic misconduct	Poor agreement (κ= 0.00)
n relation to EMI HE	
olicy development processes	Poor agreement (κ= 0.00)
mplementation and management	Poor agreement (κ= 0.00)
tudent and faculty support provision	Poor agreement (κ= 0.00)
Consequences and penalties	Poor agreement (κ= 0.00)

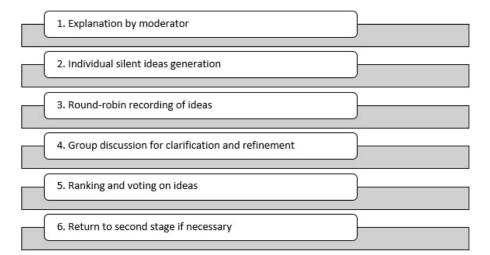
Table V: Asynchronous Stage 2 Idea Generation Findings

Dimension	Proposed Descriptors	Frequency
Core values and	Academic honesty	14
principles	Equitable treatment	13
	Ethical GenAl skills development	10
	Flexibility for evolving GenAl	8
	Mandatory GenAl disclosure	7
	Best practice exemplars	4
Scope and	Definition of EMI pedagogical realities	12
definitions	Definition of GenAl tool capabilities	12
	Definition of GenAl-assisted misconduct in	10
	EMI	
	Use of software to detect GenAl use	8
	Suggestions for assessment re-design	7
Development	Inclusion of student/faculty voice in policy	10
and	creation	
implementation	Develop specific management framework	8
	Creation of educational resources to raise	8
	awareness	
	EAP support programmes for students	7
Compliance and	Regular internal/external policy reviews	10
management	Establishment of oversight board	9
	Student/faculty orientation on GenAl	7
	permitted use	

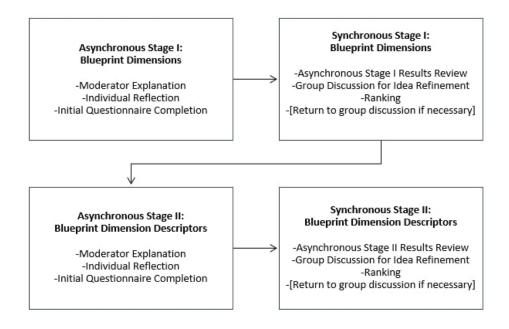
Table VI: Synchronous Stage 2 Results

Dimension	Proposed Descriptors	Strength of Agreement
Core values and	Academic honesty	Almost perfect agreement (κ= 1.00)
principles	Equitable treatment	Almost perfect agreement (κ= 1.00)
	Ethical GenAI skills development	Almost perfect agreement (κ= 1.00)
	Flexibility for evolving AI	Almost perfect agreement (κ= 1.00)
	Mandatory AI disclosure	Almost perfect agreement (κ= 1.00)
	Best practice exemplars	Almost perfect agreement (κ= 1.00)
Scope and	Definition of EMI pedagogical realities	Almost perfect agreement (κ= 1.00)
definitions	Definition of GenAI tool capabilities	Almost perfect agreement (κ= 1.00)

	Definition of Conditional Living	Almost morfold and a control of CO
	Definition of GenAl-assisted misconduct in EMI	Almost perfect agreement (κ= 1.00)
	Use of software to detect GenAI use	Almost perfect agreement (κ= 1.00)
	Suggestions for assessment re-design	Almost perfect agreement (κ= 1.00)
Development and	Inclusion of student/faculty voice in policy creation	Almost perfect agreement (κ= 1.00)
implementation	Develop specific management framework	Almost perfect agreement (к= 1.00)
	Creation of educational resources to raise awareness	Almost perfect agreement (κ= 1.00)
	EAP support programmes for students	Almost perfect agreement (κ= 1.00)
Compliance and	Regular internal/external policy reviews	Almost perfect agreement (k= 1.00) Almost perfect agreement (k= 1.00)
The state of the s		
management	Establishment of oversight board	Almost perfect agreement (κ = 1.00)
	Student/faculty orientation on GenAl permitted use	Almost perfect agreement (κ= 1.00)
	·	Substantial agreement (v. 0.70)
	Creation of interdisciplinary working group to monitor GenAl developments	Substantial agreement (κ= 0.79)
	http://mc.manuscriptcentral.co	



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228x142mm (72 x 72 DPI)

- Establishment of values to be upheld, i.e. academic honesty, equitable treatment of all.
- · Aim to develop EMI students' skills, not just penalise GenAI misuse.
- Reasonable flexibility to account for rapid evolution of GenAI technologies.
- Definition of expectations for students and faculty, establishing exemplars for best practice, e.g. for text finessing if appropriate.
- · GenAI tool disclosure in all knowledge work.

Core Values

& Principles

Compliance &

- Clear articulation of the pedagogical particularities of EMI learners in relation to enhancing GenAI tool capabilities.
- Definition of GenAI-assisted academic misconduct in EMI
 contexts.
- Guidance on the use of AI text generators with acknowledgment of their potential limitations and EMI student vulnerability.
 - Direction on possible approaches to assessment redesign and evaluation.

Scope & Definitions

 Regular internal and external policy reviews and EMI community consultations.

capabilities for policy effectiveness assessment.

- Creation of an interdisciplinary working group to monitor emerging GenAI developments and
- Establishment of an oversight board empowered to address violations, outliers and appeals for reasonable policy flexibility, whilst also attending to the root causes behind these.
- Students and faculty should receive orientation and updates on evolving institutional stance regarding GenAI text generators including clear guidelines of best practice, FAQs, ethics training, and academic misconduct avoidance instruction.

Development & Implementation

- Inclusion of EMI student and faculty voice in collaborative policy development.
- Creation of a management framework for GenAIassisted academic misconduct in EMI coursework and dissertation production.
- Production and dissemination of educational resources to support student linguistic capacity development with and without the use of GenAI tools.
- Pre-sessional and in-sessional English for Academic purposes should be used as an additional means of student support.

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<u>Transnational Higher Education Cultures and Generative AI: A Nominal Group Study for Policy</u> <u>Development in English Medium Instruction</u>

Abstract

Purpose

An evidence-informed framework was developed to facilitate the formulation of Generative Artificial Intelligence (GenAI) academic integrity policy responses for English Medium Instruction (EMI) higher education responding to both the bespoke challenges for the sector and longstanding calls to define and disseminate quality implementation good practice.

Design

A virtual nominal group technique engaged experts (n=14) in idea generation, refinement and consensus building across asynchronous and synchronous stages. Resulting qualitative and quantitative data were analysed using thematic analysis and descriptive statistics, respectively.

Findings

The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education is not a definitive mandate but represents a roadmap of inquiry for reflective deliberation as institutions chart their own courses in this complex terrain.

Originality

The novel blueprint represents a step towards bridging concerning gaps in policy responses worldwide and aims to spark discussion and further much-needed scholarly exploration to this end.

Research Limitations

If repeated with varying expert panellists, findings may vary to a certain extent; thus, further research with a wider range of stakeholders may be necessary for additional validation.

Practical Implications

Whilst grounded within the theoretical underpinnings of the field, the tool holds practical utility for stakeholders to develop bespoke policies and critically re-examine existing frameworks.

Social Implications

As texts produced by students using English as an additional language are at risk of being wrongly accused of GenAl-assisted plagiarism, owing to the limited efficacy of text classifiers such as Turnitin, the policy recommendations encapsulated in the blueprint aim to reduce potential bias and unfair treatment of students.

Key words: generative artificial intelligence; English as a medium of instruction; higher education; academic integrity policy development; nominal group technique.

Introduction

Technology has long played a vital role in enhancing language education to which the accumulative research of Computer-Assisted Language Learning undoubtedly attests (cf. Lim and Arayadoust, 2022).

In this domain, developments from tape recorders to language learning apps have historically aided students and teaching practitioners in cross-cultural contexts to foster linguistic skills development (Tafazoli *et al.*, 2018; Zhao and Lai, 2022). However, the advent of generative artificial intelligence (GenAl) tools represents a seismic shift (Kohnke *et al.*, 2023), providing unprecedented writing capabilities to novice language learners. This, in turn, calls into question the legitimacy of their use in this sphere, in which individual language proficiency assessment is at its very core (Authors, 2023). This apprehension is in line with the wider debate in other education settings around assessment validity and integrity (e.g., Chan, 2023; Grassini, 2023; Rudolph et al., 2023), whilst others have addressed GenAl's potential benefits as a learning aid (e.g., Baidoo-Anu and Owusu Ansah, 2023; Escotet, 2023). Understanding this complex landscape requires examining the interplay between technology, language pedagogy, and academic integrity standards (UNESCO, 2021), particularly in transnational academic cultures at a time of rapid change.

The concerns raised are particularly acute in higher education (HE) contexts where assessments are high-stakes and foundational to degree conferral. This owes principally to the risk that GenAl text generators offer the possibility of conjuring up coherent, human-like text on virtually any topic with just a simple prompt, raising concerns about plagiarism and cheating on assignments and exams (Okaiyeto *et al.*, 2023; Tindle *et al.*, 2023). One setting that appears to be particularly vulnerable in this regard is English Medium Instruction (EMI) HE (Moore, 2023). The propagation of EMI worldwide embodies the emergence of transnational academic cultures (Taguchi, 2014), where universities promote English as a lingua franca despite it not being the native language of most students or faculty (Murata, 2019). This reflects broader global neoliberal movements enacting shifts toward internationalisation, student mobility, and greater cultural diversity in higher education (Bao *et al.*, 2019). However, as Sabaté-Dalmau (2020) rightly points out, it also entails tensions between local norms and globalised academic practices. As universities navigate this complex terrain, perspectives from diverse stakeholders are imperative in developing equitable, culturally-responsive policies.

Assessments in EMI settings aim to evaluate both content knowledge and linguistic capacity development but are often characterised as being problematic, given that they present longstanding challenges. For instance, the potential conflation of assessing language proficiency and subject knowledge when assessing students, the need for clarification of assessment focus, be that language, subject knowledge, or both, and the choice of assessment methodology that allows for the assessment of subject-specific knowledge and academic language skills development (Inbar-Lourie, 2022). The availability of GenAI technologies fundamentally undermines this aim and adds further complexity to the challenges faced, by allowing students to potentially circumvent the language requirement (Authors 2, in press). In addition, other related issues serve only to muddy the waters even further.

Text classifiers, such as Turnitin, initially well-received as a deterrent or silver-bullet solution to the problems posed (Ismail and Jabri, 2023), have proven to fall notably short of the promises made according to emerging scholarly literature (e.g., Chaka, 2023; Weber-Wulff *et al.*, 2023). Scholars have sounded the alarm on their inefficacy when dealing with work produced by learners who use English as an additional language. This has been highlighted as particularly susceptible to the generation of false positives by the software which leads to the erroneous classification of it having been produced by GenAl apps (Ibrahim, 2023; Liang et al., 2023).

In this landscape, owing to the challenges of GenAI in EMI HE assessment and, ultimately, as a means of fortifying the creation of transnational academic integrity cultures (Çelik and Razı, 2023), the researchers sought to create an evidence-informed framework to stimulate GenAI academic integrity policy development in EMI HE contexts. Furthermore, this also responds to one of main recommendations of a recent British Council-commissioned report into EMI policy implementation, which articulated the need "to create clear and effective evaluative systems to ensure quality implementation of EMI courses and to share good practices" (Rose *et al.*, 2020, p. 28). Through the gathering of expertise, this paper aims to offer informed perspectives on developing policies that thoughtfully support students facing difficulties whilst upholding academic standards, though not purporting definitive solutions but rather outlining evidence-based considerations towards responsive frameworks attentive to key tensions.

Literature Review

EMI Policy Development

The development and implementation of an EMI policy in HE, as Walkinshaw et al. (2017) contend, represents much more than a mere shift in the language of instruction. Its adoption also entails a broader transfiguration of the underlying geopolitical, economic, and ideological forces that shape the university landscape. However, the formulation of such policies is not without difficulty. These are often the compromise of political resistance and acceptance towards EMI, leading Blattès (2018, p. 13) to emphasise that they should be understood "not as a politicolinguistic object but as a process and site of struggle". Highlighting the limitations of technocratic top-down planning, limited academic community input may lead to significant gaps between policy and practice, with offerings of one-size-fits all approaches that do not consider disciplinary differences often found to be pedagogically unsound or socially problematic (Airey et al., 2015). For instance, Kamwangmalu (2013, p. 325) writes of EMI policy failure in African public schools to achieve its aims of enhancing the literacy rate and increasing "opportunities for the populace to participate in the socioeconomic and political development of the continent".

The transition from theoretical framing to practical implication has brought forth what Rana and Sah (2023, p. 48) term "unplanned critical consequences", which ofttimes go unexamined in the pertaining literature. Evidence in scholarship exposes transnational cultural tensions on matters such as the creation or perpetuation of socio-class factions (Tupas and Matila, 2023), owing to EMI policies that do not account for systemic educational inequalities, thus not enabling the full range of students in HE (Mahboob, 2017). Furthermore, Sah (2020, p. 742) acknowledges that "EMI is ideologically perceived as a means of acquiring the linguistic capital, often believed to provide access to the global economy; and, therefore, a liberating tool for socioeconomically minoritized groups". However, in line with other scholars, he asserts that this perception is juxtaposed to the transnational cultural realities in which English, as the dominant global language, has attained a hegemonic status while local languages are being relegated to a lower status of second order importance (Poudel and Choi, 2020; Tran and Nguyen, 2018). Considering this, scholars such as Manan et al. (2021, p. 88) have called for an epistemic reorientation in which "the social-market value of languages and social-welfare considerations may become the basis" of EMI policy development activity. To this end, in agreement with Ou et al. (2021), they emphatically call for practitioners in the field to work as agents of change to raise awareness amongst key stakeholders and policymakers to address structural inequalities inherent in policy development.

EMI and Academic Dishonesty

In addition to the assessment challenges highlighted in the Introduction, there are other issues of contention in EMI HE academic integrity, which pre-date those pertaining to GenAI tools. Although EMI-specific literature is scarce in this area, prompting calls for further investigation (e.g., Sah, 2022), this context is evidently susceptible to established academic misconduct practices, such as direct, mosaic, or self-plagiarism (Bretag and Mahmud, 2009), collusion (Parkinson *et al.*, 2022), and contract cheating (Newton, 2018). Notably, since the Emergency Remote Teaching of the COVID-19 pandemic, scholars suggest that culturally there has been a documented decrease in academic integrity adherence (Eshet, 2023; Sevimel-Sahin, 2023). In addition, EMI HE, as with other analogous settings, has long contended with the challenges posed by a less mediatic predecessor to ChatGPT, that is machine translation.

Groves and Mundt (2021) draw on previous reservations documented in research, which illustrate that "teachers tend to view [machine translation] with caution, in particular in terms of the acceptability of its use" (p. 3). At the core of their argumentation is the premise that such tools may be exploited as a meaning of circumventing the language learning process inherent in increasingly internationalised education models. The alignment here between machine translation and GenAI tools and their implications for EMI and similar education settings is saliant. Furthermore, both in this

article and a previous publication (Mundt and Groves, 2016) some five years earlier, the scholars emphatically call for HE academic integrity policies to be urgently revised to include provision to regulate machine translation tool usage. The insistence half a decade after their 2016 publication may seemingly indicate that higher education institutions (HEIs) have been slow off the mark to respond to this issue in an effective way. This ties in with documented concerns to this end on institutional legislative decision-making speed in contrast to the fast-paced evolving GenAI panorama (Foltynek *et al.*, 2023).

GenAl Academic Integrity Policy Panorama

Our understanding of the complexity of the issue at hand continues to unfold and yet many HEIs have put into place GenAI academic integrity policies and guidance around the world. Krammer and McKenna (2023, p.2) have characterised the formulation of these responses as symptomatic of the "police-catch-punish" approach in a collective "knee-jerk reaction" to bolster assessment security. Whilst there is undoubtable generalisability to such claims, in line with Perkins and Roe (2023), in the over 140 academic integrity policies analysed, a substantial lack of coverage was given to the particularities of GenAI technologies.

Xiao *et al.* (2023) sought to analyse legislative responses from the top 500 universities as per the QS rankings, and, in support for the findings of Perkins and Roe (2023), underlined that only 26% of these institutions had implemented an academic integrity policy specific to GenAl tools. They delineate two opposing positions within their findings: 67% of policies advocate regulated usage of GenAl in higher education, whilst 33% imposed an outright prohibition. A study of greater thematic proximity penned by Authors 2 (in press) also explored initial HEI policy responses. These scholars found that in a corpus of 131 policies, only 4 documents were found to address the particularities of English as an additional language learners in HE in some way, and, at the time of writing, the authors were unable to locate any specific examples for EMI settings.

Research Questions

Considering the multifaceted complexity of the challenges posed by GenAI systems for EMI HE settings, together with the gaps highlighted in policy response, to fulfil the research objective of creating an institutional policy blueprint, the following research questions (RQs) were defined:

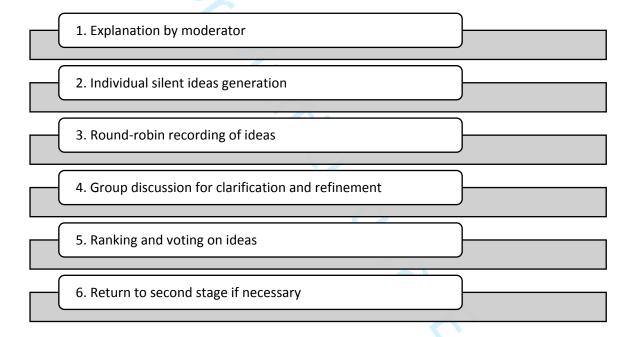
- RQ1) What key dimensions should be conceptualised in an institutional blueprint to regulate generative AI use in English-medium instruction higher education according to experts in the field?
- RQ2) What expert consensus can be reached on the descriptors to operationalise each of the key dimensions?

Methodology

Design

To address the RQs, it was decided that a mixed methods methodological approach that enabled interdisciplinary expert knowledge building, refinement, and consensus consolidation was needed. The nominal group technique (NGT) is one such established methodology that firstly facilitates structured individual idea elicitation, the fruits of which are then subjected to group discussion, and finally, the empirical aggregation of private rankings of individual preferences then determines the outcome (Manera *et al.*, 2019). Figure 1 below outlines the design architecture of a traditional NGT study:

Figure 1: Traditional NGT Synchronous Research Design



In the NGT, as with similar methodologies such as the Delphi method, there are several associated shortcomings (Bhandari and Hallowell, 2021), which include elevated time investment and reduced organic interaction owing to the highly structured nature of the procedure. Since expert selection impacts results, outcomes can vary substantially between studies using different experts, prompting critiques about reliability (Dorussen *et al.*, 2005). Furthermore, group decision-making can be impaired by problematic tendencies, i.e. the bandwagon effect, susceptibility to manipulation by forceful members, and reluctance to change opinions when others are present (Asmus and James, 2005).

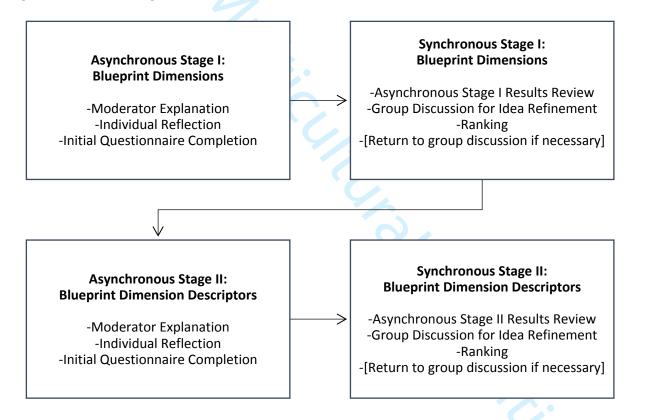
In accordance with Humphrey-Murto *et al.* (2023), the virtual nominal group technique (vNGT) is an adaptation of the methodology which convenes geographically dispersed participants online through

video conferencing and collaborative editing platforms with "many researchers having pivoted to

	Inclusion criteria	Exclusion criteria
Knowledge	-Has doctoral training.	-Does not have doctoral training
	-Has a considerable number of relevant	-Has not published at least 5 journal
	academic publications such as journal	articles or book chapters on relevant
	articles and book chapters.	topics.
	-Has knowledge of policy development on	-Does not have knowledge of policy
	e-learning, digital ethics, and/ or academic	development on e-learning, digital
	integrity together with understanding of	ethics, and/ or academic integrity,
	EMI assessment procedures, and the	together with understanding of EMI
	possible AI threats.	assessment procedures and the possible

online modalities since the 2019 COVID19 pandemic" (p. 6). Moreover, the range of digital tools available to facilitate its implementation offer notable affordances such as the rapid sharing and structuring of ideas (Khurshid *et al.*, 2023). The research design used here is illustrated in Figure 2 below:

Figure 2: Research Design Architecture



Participants

The authors rigorously delineated selection criteria for identifying experts based on three primary dimensions: knowledge, experience, and pedagogical policy development responsibility. The operationalisation of these dimensions is articulated in the criteria outlined in Table I below:

Table I: Summary of Inclusion and Exclusion Criteria

		Al threats.
Experience	-Has a six-year period of research and university teachingHas at least 5 years' experience in EMI.	 -Does not have a six-year period of research and university teaching. -Does not have extensive at least 5 years' experience in EMI.
Pedagogical Policy Development Responsibility	 -Holds a university position of pedagogical policy development responsibility. -Has previously contributed to the design and implementation of EMI assessment 	-Does not hold a university position of pedagogical policy development responsibilityHas not previously contributed to the
Nesponsibility	procedures.	design and implementation of EMI assessment procedures.

The expert panel was formed per the inclusion/exclusion criteria in Table I. In total, 37 potential experts were directly contacted via email. This included a participant information sheet outlining the key research aims, design, and benefits of participating. Of those contacted, 14 agreed to participate, while 9 declined due to limited availability and others did not respond.

The group of experts included members from Canada, China, Germany, Spain, United Kingdom, and USA. There was a gender distribution of 11 females and 3 males. The interdisciplinary panel encompassed academics with doctoral qualifications, extensive publication records, and at least five years' experience developing policies and assessment frameworks specifically for English medium instruction tertiary contexts. The use of both asynchronous and synchronous stages allowed for participation in the first stage of those who were unable to attend the live sessions. To that end, the asynchronous stage 1 sample is empirically greater (n=14) than that of the synchronous stage 2 (n=11).

Instrument Piloting and Validation

Prior to carrying out the investigation, the questionnaires, prompts, and facilitator guide used were all subject to a process of piloting and validation. Their creation involved an iterative process that comprised writing, expert review, pretesting cognitive interviews, and refinement over a two-month period. Moreover, a pilot study with ten participants drawn from the target population was carried out. They assessed the psychometric qualities of the questionnaire items using quantitative analytic techniques, such as exploratory factor analysis, and determined which questions were redundant or underperforming so they could be eliminated (n=3). The instruments were then sent to two separate

experts in the field for evaluation, and subsequent modifications were then enacted with this definitive version of the instruments being used in the study.

Data Collection

This study utilised a multi-stage technique for gathering both quantitative and qualitative data from the expert panel. This progressively focused the experts from initial asynchronous idea generation towards ranking and voting on ideas synchronously, providing structure to funnel perspectives whilst allowing flexibility for open discussion and elaboration. The initial broader qualitative phase facilitated critical reflection, while the concluding quantitative voting phases provided focused evaluative data for analysis.

Specifically, qualitative data were gathered through responses to 12 open-ended questions in an initial asynchronous questionnaire. This allowed for initial broad commentary from the experts. Additional qualitative data were collected through the open-ended generation and discussion of ideas in the subsequent synchronous stages. Quantitative data were collected through the process of voting and ranking of ideas carried out as the final procedure of each synchronous stage. This allowed for numerical prioritisation of the experts' perspectives on the key topics as their opinions solidified over the iterative rounds.

Data Analysis

The qualitative open-ended survey responses and focus group transcripts were analysed using thematic analysis. This involved an inductive, data-driven approach to identifying salient themes and patterns of meaning. The data were coded by assigning descriptive labels to relevant passages. Codes were compared, contrasted, and refined into a codebook. Broader categories, themes and sub-themes were developed by examining intersections and relationships between codes and representative quotations for each theme were extracted.

The quantitative data obtained from the ranking were analysed using Cohen's kappa coefficient (κ) to determine the degree of agreement. Items having a kappa coefficient (κ) of less than 0.74 were not carried over into the next stage of the study process, since the expert panellists' threshold for consensus for each item was set at or above a value of 0.75. Considering this, the data shown in Table II below was interpreted:

Table II: Cohen's kappa Coefficient Interpretation for Strength of Agreement

Cohen's kappa coefficient (κ)	Strength of agreement
< 0.00	Poor agreement

0.00 – 0.20	Slight agreement
0.21 – 0.40	Fair agreement
0.41 – 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 1.00	Almost Perfect agreement

Results

Defining Dimensions (RQ1)

The initial asynchronous questionnaire was completed by 14 experts, and the dimensions suggested to include in the blueprint were as follows:

Table III: Asynchronous Stage 1 Idea Generation Findings

Proposed Dimension	Frequency
Core values and principles	14
Policy Scope	12
Key definitions of GenAI academic misconduct	10
in relation to EMI HE	
Policy development processes	10
Implementation and management	8
Student and faculty support provision	7
Consequences and penalties	1

Whilst respondents used slightly different phraseology to articulate these dimensions, It is interesting to note that there was convergence on the first five dimensions in the table. Student and faculty support was also a saliant response, although to a slightly lesser extent. The notable exception to this is the suggestion of consequences and penalties, which was mentioned less frequently.

Synchronous Stage 1

The results, as reported in Table III above, were then reviewed and subjected to discussion amongst the expert participants in this synchronous stage in which 11 expert panellists were able to partake. In the discussion there were several main themes identified which included the amalgamation of the dimensions of policy scope and key definitions of GenAI academic misconduct in relation to EMI HE, as is illustrated from the following extracts:

I think we need to be careful not to separate policy scope from the key definitions around AI and academic misconduct. They are interconnected from where I stand. [SS1.24]

I agree entirely. Scope should flow directly from the nuanced definitions, not the other way round. [SS1.25]

A similar theme was identified in the realignment of the initial dimension suggestions, which divided implementation and management, making way for the creation of the development and implementation and compliance and management dimensions put forward for the final ranking. Extracts below illustrate excerpts from the discussion maintained on these points:

I think it would make much more sense if we put development and implementation on the one hand and management in an entirely different segment. [SS1.104]

Well there is certainly much more interconnectivity that way. [SS1.105]

Furthermore, it was also put forward that student and staff support provision would be better conceptualised as a descriptor of the development and implementation dimension, as is illustrated in the following extracts:

In our initial thinking, student and staff support was its own policy dimension. But I wonder if it fits better as part of development and implementation. [SS1.189]

I was thinking along the same lines earlier. Support provision seems inextricably linked to how the policy is developed and put into practice. [SS1.190]

Subsequently, the participants then proceeded to rank the modified dimensions as per their discussion together with those which were originally proposed. The outcome is detailed in Table IV below:

Table IV: Synchronous Stage 1 Results

Proposed Dimension	Strength of Agreement
Compliance and management	Almost perfect agreement (κ= 1.00)
Development and implementation	Almost perfect agreement (κ= 1.00)
Core values and principles	Substantial agreement (κ= 0.80)
Scope and definitions	Substantial agreement (κ= 0.76)
Policy Scope	Poor agreement (ĸ= 0.00)
Key definitions of GenAl academic misconduct	Poor agreement (ĸ= 0.00)
in relation to EMI HE	
Policy development processes	Poor agreement (κ= 0.00)
Implementation and management	Poor agreement (к= 0.00)
Student and faculty support provision	Poor agreement (ĸ= 0.00)
Consequences and penalties	Poor agreement (ĸ= 0.00)

Defining Dimension Descriptors (RQ2)

In the subsequent phase of the study, attention shifted to defining the descriptors which operationalise the dimensions that were agreed. The findings from the initial questionnaire are detailed below in Table V:

Table V: Asynchronous Stage 2 Idea Generation Findings

Dimension	Proposed Descriptors	Frequency
Core values and	Academic honesty	14
principles	Equitable treatment	13
	Ethical GenAI skills development	10
	Flexibility for evolving GenAI	8
	Mandatory GenAl disclosure	7
	Best practice exemplars	4
Scope and	Definition of EMI pedagogical realities	12
definitions	Definition of GenAl tool capabilities	12
	Definition of GenAl-assisted misconduct in	10
	EMI	
	Use of software to detect GenAl use	8
	Suggestions for assessment re-design	7
Development	Inclusion of student/faculty voice in policy	10
and	creation	
implementation	Develop specific management framework	8
	Creation of educational resources to raise	8
	awareness	
	EAP support programmes for students	7
Compliance and	Regular internal/external policy reviews	10
management	Establishment of oversight board	9
	Student/faculty orientation on GenAl permitted use	7

Synchronous Stage 2

Intriguingly, the discussion amongst expert participants took place with general agreement expressed on all descriptors put forward to operationalise the blueprint dimensions. However, as the interaction progressed, an additional theme was identified that centred on a new descriptor proposal for the compliance and management dimension, as illustrated in the following extracts:

I think recommending a cross-departmental team to monitor GenAl developments would be prudent. It could give us valuable foresight into changes that may warrant policy adjustments. [SS2.63]

These policies are going to be living documents. Well, they all are really, but the way things change so quickly with these tools, I think that this is more important than ever. [SS2.66]

The results from the subsequent ranking of agreement are detailed in Table VI below:

Table VI: Synchronous Stage 2 Results

Dimension	Proposed Descriptors	Strength of Agreement
Core values and	Academic honesty	Almost perfect agreement (κ= 1.00)
principles	Equitable treatment	Almost perfect agreement (κ= 1.00)
	Ethical GenAl skills development	Almost perfect agreement (κ= 1.00)
	Flexibility for evolving AI	Almost perfect agreement (κ= 1.00)
	Mandatory AI disclosure	Almost perfect agreement (κ= 1.00)
	Best practice exemplars	Almost perfect agreement (κ= 1.00)

Scope and	Definition of EMI pedagogical realities	Almost perfect agreement (κ= 1.00)
definitions	Definition of GenAI tool capabilities	Almost perfect agreement (κ= 1.00)
	Definition of GenAl-assisted misconduct in EMI	Almost perfect agreement (κ= 1.00)
	Use of software to detect GenAI use	Almost perfect agreement (κ= 1.00)
	Suggestions for assessment re-design	Almost perfect agreement (κ= 1.00)
Development	Inclusion of student/faculty voice in	Almost perfect agreement (κ= 1.00)
and	policy creation	
implementation	Develop specific management	Almost perfect agreement (κ= 1.00)
	framework	
	Creation of educational resources to	Almost perfect agreement (κ= 1.00)
	raise awareness	
	EAP support programmes for students	Almost perfect agreement (κ= 1.00)
Compliance and	Regular internal/external policy reviews	Almost perfect agreement (κ= 1.00)
management	Establishment of oversight board	Almost perfect agreement (κ= 1.00)
	Student/faculty orientation on GenAl	Almost perfect agreement (κ= 1.00)
	permitted use	
	Creation of interdisciplinary working	Substantial agreement (κ= 0.79)
	group to monitor GenAl developments	

Discussion

Research Questions

In response to RQ1 and RQ2, four key policy dimensions were agreed upon together with their corresponding twenty descriptors which constitute the expert-informed creation of The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education.

Novelty

This novel instrument responds to the sector-wide call articulated by Rose *et al.* (2020) to disseminate good EMI policy practice. This tool has been created as a means of fortifying the creation of transnational academic integrity cultures (Çelik and Razı, 2023) in line with the multifaceted GenAlrelated challenges for EMI HE Assessment discussed previously (Authors 1, in press) and the cultural shift in heightened technology use for academic misconduct purposes (Eshet, 2023). As HEIs continue to formulate policy responses to this phenomenon (Perkins and Roe, 2023; Xiao *et al.*, 2023), it is hoped that the tool will act as an informative contribution that sparks reflective deliberation amongst key stakeholders and policy makers. The considered and measured nature of the tool's unrushed development forged through the vNGT that encompassed expert idea generation, refinement, and consensus consolidation is a strength which starkly contrasts to the "knee jerk reaction" approach to policy formulation that Krammer and McKenna (2023, p. 2) critique.

Applicability and Breadth of Impact

This instrument's specific focus on EMI settings is of evident practical utility for these contexts; however, there is scope for this to be used more broadly, too. As the concerns of potential social inequality highlighted earlier regarding EMI student produced work and GenAI text classifiers (Liang et al., 2023; Weber-Wulff et al., 2023) are specifically addressed in the blueprint, this tool may also be of use for non-EMI HE settings to ensure that these students are justly catered for in policy responses. This is further reinforced by the explicit acknowledgement of machine translation technologies, which is of relevance to English as an additional language by students both in EMI and non-EMI HE settings and responds to long-standing calls for HEIs to address this (Groves and Mundt, 2021; Mundt and Groves, 2016). Considering the increasingly transnational nature of HE and the emergence of global academic cultures, ensuring equitable and culturally responsive academic integrity policies is imperative, and this tool represents a means of taking a further step to ensure that any such cultural inequalities do not go unaddressed. This point is of even greater significance when considering the remarkable lack of provision given to international students in GenAI academic integrity policies found in an earlier study penned by Authors 2. (in press).

Methodological Considerations

The limited application of expert consensus gathering methods in fields outside of healthcare prompted Sterling et al. (2023) to call for wider application in other areas to which this study clearly responds. The implementation of the study was initially delayed owing to limited availability of busy experts, in line with the limitations highlighted by Bhandari and Hallowell (2021). Despite this, the subsequent research design reconfiguration to include asynchronous stages alongside their synchronous counterparts afforded wider participation and the potential limitation of technical difficulties (Carter et al., 2021) was not experienced in the virtual execution of the data collection procedures. To that end, it is highly encouraged that further research be carried out employing the methodological approach taken here, particularly owing to the epistemological generalisability of expertise which affords concurrent validity and reliability to findings (Green, 2014; Vander Laenen, 2015).

Transnational Cultural Change: Reshaping EMI Policy Development through Collaborative Expertise

The bottom-up approach taken here to the elaboration of the blueprint highly contrasts with the top-down imposition of EMI policy often found to be pedagogically and socially problematic (Airey *et al.*, 2015) and ineffective in practice (Kamwangmalu, 2013). In short, the very nature of the blueprint is conceptualised as guidance to spark reflection as opposed to a mandatory regulatory imposition. The gathering of EMI experts to produce the guidance encapsulated within the resulting tool responds to Ou et al.'s (2021) calls for greater practitioner involvement in the policy development process, marking

a transnational cultural change in the locus of control that conceptualises expert practitioners as agents for change to drive bottom-up policy offerings, in accordance with Manan et al. (2021). In other words, It represents a move away from monolithic top-down imposition of EMI policy, towards context-sensitive guidance developed collaboratively by practitioners with localised expertise.

Epistemic Reorientation in EMI Policy: Integrating Local Voices and Social Considerations

As previously elucidated, EMI policy has ideological underpinnings and colonial origins that mask critical unintended consequences (Rana and Sah, 2023), perpetuating inequality (Mahboob, 2017; Tupas and Matila, 2023) and transnational cultural tensions such as English attaining a hegemonic status while local languages are relegated to a status of lower importance (Poudel and Choi, 2020; Tran and Nguyen, 2018). Further application of such bottom-up approaches incorporating local perspectives may help to take steps towards overcoming these systemic cultural injustices and spur wider reflection on assumptions underlying EMI policy implementation. In further alignment with Manan *et al.* (2021), this novel instrument embodies the epistemic reorientation in which "the social-market value of languages and social-welfare considerations may become the basis" of EMI policy development activity that they called for (p. 88). For instance, this is operationalised in the articulation of English for Academic Purposes support provision, the inclusion of student voice in policy conceptualisation and review, and the acknowledgement of EMI student work susceptibility to GenAI text classifiers.

Limitations

This study is not however without limitations. The documented constraint of limited participant availability was successfully addressed by incorporating a first asynchronous stage in the research design, allowing busy expert participants to contribute to a certain extent. However, in accordance with Bhandari and Hallowell (2021), discussion remained structured and opportunities for organic discussion were limited. Every effort was made to ensure that no single participant was allowed to dominate interaction at any given time, nevertheless, the authors cannot be certain that the results have not been affected by the bandwagon effect or the reluctance to change their opinions in the presence of others (Asmus and James, 2005). Moreover, even though the recruitment of participants was carried out strictly in accordance with the inclusion and exclusion criteria outlined previously, as Fink-Hafner et al. (2019) note, if the exercise were repeated with different expert panellists the results may be different.

Future Directions

In addition, further scholarly investigation into the efficacy and applicability of the proposed academic integrity framework across diverse international higher education contexts is imperative. Comparative analyses between specific countries and regions would illuminate the transferability of the framework and allow for greater contextualisation to local needs. Moreover, perspectives of additional stakeholders, including students, EdTech firm representatives, and others could be examined to strengthen the validity of the framework. Additional research could also take a similar methodological approach to develop specific quality assurance tools for GenAl academic integrity policy management in EMI HE contexts. Additionally, the creation of tailored resources to uphold EMI quality assurance standards in relation to academic writing, assessment design, and grading is essential is a further avenue which is highly recommended.

The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education
The definitive iteration of the blueprint is presented in Figure 3 below:

Core Values

& Principles

Compliance &

Management

Figure 3: The GenAl Academic Integrity Policy Development Blueprint for EMI Tertiary Education

- Establishment of values to be upheld, i.e. academic honesty, equitable treatment of all.
- · Aim to develop EMI students' skills, not just penalise GenAI misuse.
- Reasonable flexibility to account for rapid evolution of GenAI technologies.
- Definition of expectations for students and faculty, establishing exemplars for best practice, e.g. for text finessing if appropriate.
- · GenAI tool disclosure in all knowledge work.

- Clear articulation of the pedagogical particularities of EMI learners in relation to enhancing GenAI tool capabilities.
- Definition of GenAI-assisted academic misconduct in EMI contexts.
- Guidance on the use of AI text generators with acknowledgment of their potential limitations and EMI student vulnerability.
 - Direction on possible approaches to assessment redesign and evaluation.

Scope & Definitions

- Regular internal and external policy reviews and EMI community consultations.
- Creation of an interdisciplinary working group to monitor emerging GenAI developments and capabilities for policy effectiveness assessment.
- Establishment of an oversight board empowered to address violations, outliers and appeals for reasonable policy flexibility, whilst also attending to the root causes behind these.
- Students and faculty should receive orientation and updates on evolving institutional stance regarding GenAI text generators including clear guidelines of best practice, FAQs, ethics training, and academic misconduct avoidance instruction.
- Inclusion of EMI student and faculty voice in collaborative policy development.

 Implementation
 - Creation of a management framework for GenAiassisted academic misconduct in EMI coursework and dissertation production.
- Production and dissemination of educational resources to support student linguistic capacity development with and without the use of GenAI tools.
- Pre-sessional and in-sessional English for Academic purposes should be used as an additional means of student support.

Conclusion

To conclude, in the wake of mounting concerns regarding implications of Generative AI (GenAI) technologies for academic integrity (Okaiyeto et al., 2023; Tindle et al., 2023), English Medium Instruction (EMI) has emerged as a notably susceptible context (Authors 1, in press). Specifically,

GenAl's ability to automatically produce human-like content could enable students to circumvent language development requirements integral to EMI curricula and assessments (Inbar-Lourie, 2022). Although limited attention has focused distinctly on EMI academic dishonesty concerns (Sah, 2022), tensions have arisen regarding significant gaps found in higher education institutions' GenAl policy responses attending to English as an additional language learners thus far (Bannister et al., 2023; Perkins and Roe, 2023; Xiao et al., 2023).

To directly address this complex issue, the present study pursued two core research questions: (1) What key policy dimensions can regulate GenAl tools in EMI higher education? And (2) What descriptors can operationalize each dimension? Through nominal group technique engagement of EMI experts, four salient GenAl policy dimensions emerged - values/principles, definitions/scope, development/implementation, and management/compliance. Additionally, descriptive elements of each dimension were developed to constitute an actionable EMI-tailored blueprint for institutional guidance. This GenAl Academic Integrity Policy Development Blueprint for EMI Higher Education represents the first known framework specifically targeting ethical and equitable GenAl regulation in EMI assessment contexts. With its collaborative construction and emphasis on supporting students whilst upholding academic standards, it constitutes an important initial instrument for stirring critical reflection to inform context-appropriate policy responses. However, advancing Generative Al capacities warrant ongoing revision to ensure efficacy and fairness long-term.

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Dear Reviewer and Editor-in-Chief,

We sincerely thank you for taking the time to thoroughly review the manuscript submitted to the special issue of the Journal for Multicultural Education. We greatly appreciate the comments that have been received and have spent time reviewing our initial submission and enacting the necessary changes in accordance with the suggestions for improvement.

In order to elucidate the changes made in this new submission, we have created the following table which details the precise changes that have been made:

	,
Reviewer Observations	Author Response and In-Text Modification
1. Investigating the use of generative AI in	We thank the reviewer for the recognition of the
English language teaching aligns with the current trend of integrating technology into	actuality of the topic and related observations.
education. It is indeed necessary to invite scholars from various countries to discuss this topic, and it holds valuable reference value. However, this study employed the NGT method and used qualitative analysis to consolidate the opinions of scholars from different nations, even though it involved quantitative analysis. As a result, there may still be room for debate regarding the findings.	We have now amended the text to address the concerns raised here.
2. The author highlighted the drawbacks of NGT in the previous section. Did these issues get resolved when transitioning to an online approach? It seems that there was no improvement made to address these drawbacks.	This has now been added to the discussion section.
3. The research findings and discussion appear to lack a specific "framework," and the conclusions seem difficult to relate to the research questions and results.	This issue has now been addressed in the text. The text of the conclusion has been rewritten to address the shortcomings highlighted.
4. It is recommended that the study adopts a more rigorous research methodology; otherwise, the conclusions lack persuasiveness.	This has now been addressed in the main body of the text.
5. The description of the study subjects should provide more specific information about the expertise, backgrounds, and relevance to the research topic of the various experts.	More information to this end has been added to the text.
6. There are some apparent format errors, such as the description of Figure 3 appearing to be missing. These should also be corrected according to relevant guidelines.	The manuscript has been revised again in accordance with formatting guidelines and the error highlighted together with others have been amended in the text.

7. p.3 Para 2: The research aim sounds like an overstatement.	This part of the text has now been amended with a softening in the language used and has been formulated in such a way that outcomes are not predetermined.
8. p. 8 explain how the instruments were validated and piloted before the date collection.	A new subsection has been created in the text which provides this information.

Furthermore, modifications in the text have also been highlighted in the hope that this will facilitate subsequent reviewing work.

We would like this opportunity to thank you for both your time and insightful input into our work.

With best wishes,

The Authors