UNIVERSITY OF LEEDS

The Language Scholar

2023: Issue 12

Edited by Jeanne Godfrey, Alexander Ding and Sascha Stollhans

Editorial Board

The Leeds Language Scholar Journal

The Language Scholar is an open access and peer-reviewed journal. Its main objective is to provide a platform to promote the scholarship of learning and teaching languages.

Contributions are welcome from practitioners, researchers and students who are involved in language education. Areas of particular interest to this Journal are theories and practices for language teaching and education, including language teaching approaches and methodologies, intercultural communication, the psychology of language learning, research-led teaching, student-led practices, communicative strategies and experimental teaching.

The Language Scholar is hosted by the Centre for Excellence in Language Teaching within the School of Languages, Cultures and Societies at the University of Leeds. It considers international contributions in multimedia formats, in and about any language (including ancient languages). It aims to provide a space for the development of scholarship in language education, and to provide a platform for pieces which highlight the potential of multimodality to enhance communication, including a supportive and developmental approach to peer review.

Alongside the annual printed issue, the Language Scholar's digital space hosts and showcases contributions, facilitating the sharing and exchange of ideas. Submissions can be sent to the journal at any time, although there will be deadlines announced for specific printed issues.

If you would like to get in touch or submit a piece, you can contact us on the journal's email: **languagescholar@leeds.ac.uk** or Tweet us at **@LangScholar**.

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Editorial

Sascha Stollhans

Welcome to Issue 12 of The Language Scholar!

As announced in the editorial to issue 11, The Language Scholar has been undergoing some transformation. We are pleased to introduce to you a newly configured editorial team and advisory board! Alexander Ding and I have joined Jeanne Godfrey as Co-Editors, and we are delighted that our advisory board has grown too: welcome to new members Bee Bond, Cécile de Cat, Yolanda Cerdá, Julia Molinari and Carlos Soler Montes! We would like to take this opportunity to express our sincere gratitude to our former Co-Editor Martin Ward and to outgoing members of the advisory board.

The three research papers in this latest issue explore language and pedagogy from a broad and interdisciplinary perspective, focusing on classroom experiences of international students and their tutors. Boswell's case study looks at reflective practice through the eyes of International Foundation students on STEM pathways. The study finds that, whilst students acknowledge the long-term benefits of reflective practice, such as increased confidence and self-knowledge, they initially express uncertainty and reluctance. The findings suggest a need for improved measures to ensure student accountability, increased motivation through engaging activities, and more specific reflective tasks integrated into the learning process, indicating that pedagogical scaffolding and educator support could enhance the effectiveness of reflective practice.

In Sancheti and Zacharia's paper, language-related challenges faced by science educators in English Medium of Instruction (EMI) contexts are investigated. Conducted during the Covid-19 pandemic in India and the UK, the study involved online professional development workshops with science educators, aiming to explore their beliefs about the role of multiple registers and languages in teaching subject-specific concepts. The findings reveal educators' awareness of language challenges, their skills as meaning negotiators across languages, and their evolving understanding of the relationship between conceptual understanding and language use.

Finally, Nalbantova's article explores the expectations of international students regarding teacher-student interactions in tutorial groups, specifically focusing on their willingness to respond when nominated by their teacher to answer questions in an open-class setting. According to the findings, few participants expect the teacher to nominate students, and nearly half feel nervous when nominated, citing low language proficiency and fear of embarrassment as key factors. The paper emphasises the need for educators to be aware of cultural differences in students' perceptions of classroom dynamics and suggests that teacher nomination might not be a viable approach in the English for Academic Purposes (EAP) classroom.

Apart from the three research papers, this issue also contains two book reviews. The first one, by Cerdá, discusses 'Language Debates. Theory and Reality in Language Learning, Teaching and Research', a volume edited by de Medeiros and Kelly. Cerdá's innovate approach to the book review includes personal reflections as well as a discussion of the ethical and political considerations relevant to book reviews.

Shiel's review of 'English Medium Instruction Practices in Higher Education: International Perspectives', edited by McKinley and Galloway, is a critical exploration of key themes of the volume, highlighting its potential to encourage a variety of methods and interdisciplinary thinking when approaching EMI research.

As ever, we are immensely grateful to our authors and peer reviewers. We trust that readers of this issue will find the different papers as inspiring and insightful as we have. And before we leave you to enjoy the current issue, a reminder that we are currently calling for submissions to a special issue of The Language Scholar on 'Developing Contexts of Scholarship', to be published in summer 2024. We would be delighted to hear from interested authors by 29 February 2024.

Papers

Investigating STEM pathway students' perceptions of reflective practice: A case study

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ABSTRACT

This paper explores the perceptions and attitudes held by a group of international Foundation students enrolled in the Science, Technology, Engineering and Mathematics towards reflective practice. Thirteen students participated in an initial survey and three students participated in follow up focus groups and one to one interviews. The findings reveal that while students perceive reflective practice to be positive in the long run, increasing confidence, self-knowledge and enhancing transferability to their subject units, they experience initial uncertainty towards it. They felt there should be enhanced measures to reflect student accountability; desired more motivational and engaging in-class activities as well as greater specificity with regards reflective tasks that foster and reflect meaningful learning outcomes. There were intimations that some students sensed a feeling of being forced to practice reflection and were often unmotivated to undertake it of their own volition. The paper concludes that while participants view reflective practice as useful, STEM pathway students may become more motivated, and initial attitude may be less sceptical, if the teaching of written reflective practice is pedagogically scaffolded and forms part of an accountable process in which educators can support learner engagement through mutual participation.
KEYWORDS: Motivation, Reflection-in-Action, Reflective Practice, Scaffolding, STEM

INTRODUCTION

Background

Reflective practice (Dewey, 1933) is an established pedagogical process emerging from educational philosophy. It is embedded throughout Higher Education (HE) and sits comfortably within the humanities and social sciences, as well as nursing and scientific pedagogy (Macfarlane and Gourlay, 2009; Schön, 2017). Reflecting this trend, reflective practice is embedded into both course design and assessment, of an accelerated English Language Unit designed for students entering with proficient levels of English on an International Foundation Programme (IFP) of one UK Higher Education Institution (HEI). The programme incorporates multiple pathways including Arts and

Humanities, Social Sciences and Law and Science, Technology, Engineering and Mathematics (STEM). All students are required to develop written reflective practice skills through logs that aid explanation of how their individual academic literacy learning evolves across a twenty-four-week programme. STEM students attend bi-weekly laboratory practice sessions, after which they are required to submit a post-practicum reflective comment to their instructors.

Specifically, the accelerated English Language unit is designed with regular personalised written reflective practice activities embedded at the end of each workshop, and the assessment includes formatively assessed e-portfolio submissions. This culminates in a 60% weighted summative assessment in the form of a final oral presentation that requires learners to rationalise, substantiate and articulate their academic literacy development based on critical self-analysis of their development against the unit intended learning outcomes (ILOs), (see Appendix I). Students are assessed on their reflective presentation that discusses evolution of their skills, with one objective being that the unit helps shape students towards becoming practiced reflective individuals in the context of Higher Education. Yet, embracing written reflective practice does not always come second nature to STEM pathway learners. This is reflected in how the end products can on occasion seem formulaic, and performative (Macfarlane and Goulay, 2009).

Significance

The significance of reflective practice in STEM subjects is clear (Blockley, 1992; Dias and Blockley 2995; Prudhomme, Boujut, and Brissaud, 2003). Not only is it a highly regarded attribute for employment preparation, but it is also a vital attribute which evolved STEM practitioners utilize in both academia and in occupational contexts. However, scepticism towards reflective practice as a non-scientific form of learning exists (Hains-Wesson and Young, 2017). Indeed, based on the researchers own experience, initial attitudes towards reflective practice can be hesitant amongst some IFP STEM pathway students. Hitherto, the explicit relationship of reflective practice to STEM pathway learners studying an English Language unit on an IFP has been uncharted, and to date the views and attitudes of STEM pathway students towards reflective practice have not been articulated.

While reflective practice is essentially grounded in humanities and social sciences (Macfarlane and Gourlay, 2009), there is clear value of strengthening STEM pathway student engagement in its practice. Prudhomme, Boujut and Brissaud (2003) maintain, STEM students are expected to evolve as reflective practitioners. This is related to the capacity and skills necessary for critical analysis of engineering and engineer design past failures, as well as being thoroughly prepared for the world of

work (Hains-Wesson and Young, 2017). Thus, introducing critical incident analysis and problem-solving activities that foster critical engagement with varying viewpoints, followed by critical reflective practice, could further strengthen reflective practice engagement and deepen practice and sustain motivation.

This small-scale case study (Stake, 2000) begins with an exploration of the literature surrounding reflective practice depicting what is already known about it and the varying cultural perspectives towards it. Further, the literature exploration examines reflection in STEM disciplines and reflection-in-action, assessment of reflection and student perceptions of reflective practice. Next, there is an account of how the study was carried out and the methods adopted. This is followed by a discussion of the case study findings and includes extracts of participant contributions. The study finally concludes that scaffolded support with initial and accountable engagement in discursive reflective practice could be implemented and suggests that initial scaffolded educator as participant reflective practice, with regular 'interludes' (Hibbert, 2013), could enhance STEM pathway student engagement with its practice.

LITERATURE REVIEW

The emergence of reflective practice (Dewey, 1933) and its integration in curriculum design and role as an assessment of learning tool in academia, is well documented in the literature across wide-ranging disciplines (Ash, Clayton and Atkinson, 2005; Ash and Clayton, 2009; Fook, 2015; Fullana et al. 2016; Hibbert, 2013; Hughes, 2018; Molee et al. 2011; Pais Marden and Herrington, 2022; Pitts and Ruggirello, 2012; Turner, 2006). Despite this, there has been some recognition that the term 'reflection' may not only be hard to distinguish from systematic thinking, but it is also difficult to assess something with nebulous definition (Rodgers, 2002). Furthermore, reflection is not perceived as desirable by all in higher education, with some authors who note that teaching reflection does not come without difficulties (Leigh, 2016; Russel, 2005; Smith 2011), and others who challenge the 'merits of imposing this form of assessment on students' (Macfarlane and Goulay 2009, p.457). Crucially, the internationalisation of Higher Education in recent decades brings together diversity and wide-ranging education systems of varied heritage origins, yet what is expected in reflective practice can be difficult to apply in practice (Ash and Clayton, 2004). Indeed, 'reflective practice' and 'critical reflection' can often substitute each other (Fook, 2015, p.440), and due to language and varying cultural and discipline perspectives, some international students might find the idea of reflection a concept hard to grasp (Tan, 2021). Ultimately, students from different cultures come with misconceptions and uncertainties about the meaning of critical thinking and other thinking

practices, some students view reflectivity as part of critical thinking (Manalo et al. 2015).

What is also striking is that even when students develop an understanding of what it takes to write reflectively, the reflections can emerge as superficial and descriptive (Moon, 2004). Furthermore, motivation to undertake reflective practice does not come easily (Fullana et al. 2016). In addition, some students need longer than one semester to assimilate written reflective skills and according to studies, real deep thinking critical reflection skills take years to develop (Andrade and Du, 2007; Fullana et al. 2016; Molee et al. 2011). In the case of students' perspectives of reflective practice, little research has explored the effect reflection has on 'deeper self-knowledge and better learning' (Wong, 2016, p.1) nor notably, why STEM pathway students might be reluctant to practice reflection.

It is important to note that written reflective practice is embedded into humanities and social science discipline curricula. It is also integrated into STEM subject curriculum. As such it is a pre-requisite for students progressing to STEM subjects to evolve as reflective successful problem solvers and collaborators (Blockley, 1992; Dias and Blockley, 1995; Prudhomme, Boujut, and Brissaud, 2003). Indeed, engineer design necessitates the analysis of past failures, such as within civil engineering projects where bridge design projects may form curriculum. In this scenario, practitioners are engaged in reflection-on-practice (Schön, 2017), rather than reflection-in-practice (Schön, 2017), the latter involving focussed critical analysis during problem-solving activities. Nonetheless, reflective practice skills are often not scaffolded nor taught (Ryan, 2013; Ryan and Ryan, 2013), yet cultivating the ability to reflect-in-action (Schön, 2017), as a way of developing skills of improvisation and applying theory of experiential learning (Kolb, 1984), in practice, is both necessary and highly regarded in STEM learning scenarios. Reflective practice is regarded as a strength within STEM subjects and its development necessary as a continuous process (Embo et al. 2014; Vivekananda-Schmidt et al. 2011). As such it ought to be perceived and conveyed as highly regarded and a highly transferable skill.

Engineers tend to rely on improvisation (Schön, 2017), a skill developed through experiential learning (Kolb, 1984). Drawing firstly on learned formulaic comprehension and internalised knowledge or 'technical rationality' (Schön, 2017, p.169), engineers reflect-in-action by mapping their technical knowledge to the problem, leading to experiential improvisation. This is of particular relevance to the transferability to real-world industrial problem solving and in mechanical engineering, the construction of knowledge (Li et al. 2019). Reflective practice to construct knowledge could further enhance engagement with STEM subjects, yet for those students schooled to write in 'a more formal

and technical manner' (Macfarlane and Gaulay, 2009, p.458), being required to conform to a restricted set of values to fit 'notions of the contemporary citizen' (Macfarlane, 2016, p.92) and the need to be 'personal and self-revelatory' (Macfarlane and Gaulay, 2009, p.458) may be unfamiliar territory. This means that clear ILOs expectations in tangent with greater scaffolding could help reduce learner uncertainty.

Despite reflective pedagogy being regularly included in assessment requirements, it is often lacking 'necessary scaffolding' or 'clear expectations' (Ryan, 2013, p.255) for students. Moreover, students are often not taught 'how to reflect' (Ryan and Ryan, 2013, p.145) nor how to best communicate their disciplinary knowledge through reflection. To ensure assessment of reflection is not merely an evaluative tool, and one which learners perceive merely as a way to conform and perform or jump through hoops (Leigh, 2016; Macfarlane and Gourlay, 2009), reflective practice requires critical analysis of what reflection is (Leigh, 2016). Yet, students might not always write reflective journals when not assessed (Cathro et al., 2017), and those new to the reflection process demonstrate less deep learning or critical thinking in their writing, suggesting the need for several rewrites with tutor feedback, peer-led reflection sessions, and tutorials to help learners document and 'deepen their learning' (Molee et al., 2017, p.252). Hence, the need for increased classroom-based practice could support and strengthen students' capacity for deepened learning.

Students' perceptions of authentic reflective practice can be enhanced through the construction of STEM discipline identity and scaffolded reflective practice (Ryan and Ryan, 2013). In this way, reflection-on-practice through the lens of the STEM subject reinforces discipline identity, helps form 'professional identity' (Trede and Smith, 2012, p.625) and develops agency (Archer, 2002). In turn, such specific focus can stimulate motivation to learn (Fullana et al., 2016). and learning by means of educator participation (Trede and Smith, 2012). Creating a 'safe space' (Zizka, McGunagle and Clark, 2020) might not only enhance students' perceptions of authentic practice but also constitute trust-building. However, researchers observe that while some students do engage with reflective practice enthusiastically, some merely conform and the product can be just as much prone to inauthenticity as an essay written without respect to academic integrity (Macfarlane and Goulay, 2009).

Nonetheless, a clear line of argument about reflective practice within the learning environment is formed with many researchers arguing for greater facilitator participation in the practice of reflection within the learning context and greater learner support in understanding how to reflect (Hibbert, 2013; Ryan, 2013; Ryan and Ryan, 2013; Trede and Smith, 2012). These arguments point

towards the value of developing a community feel of reflective practice that in turn builds trust (Zizka, McGunagle and Clark, 2020), and where class activities forge conversation and foster a collaborative environment, so that ideally 'theory is developed, rather than delivered' (Hibbert, 2013, p.808).

This ideal contributes to a shared sense of purpose and learner evolution. Here, the argument for a teaching process that approaches reflexivity through critical reflection, includes the necessity of clear preparation for teaching reflection and that prepares students to engage with reflective practice, should be embedded into the curriculum. This should be followed by critical dialogue to engage with diversity and power dynamics within the group and 'foreground power' (Hibbert, 2013, p.820), followed by discussions aimed at unsettling familiar viewpoints that consequentially lead to developing new perspectives. This is essential where learners exhibit resistance to engagement towards reflective practice, because it could instigate educator-learner power dynamics, impinging upon the mutually shared learning environment.

Research Questions

The study's purpose was to investigate STEM pathway students' perceptions of reflective practice, as such the following questions guided the enquiry: What are the attitudes of IFP STEM pathway students towards reflective practice? What is the cause of the initial hesitance towards it? What implications for education development are there?

METHODOLOGY

A three-phase triangulated qualitative research method was adopted, within a grounded theory approach. The case study was framed as a heuristic (George and Benett, 2005), being designed to capture students' views and advance understanding of causal features of reluctance towards reflective practice. For the first phase, electronic survey software was used. The second phase captured and recorded participant voices using a mini-focus group. This was followed by recording one-to-one semi-structured interviews with these same participants.

Setting, participants and limitations

To recruit participants, an invitation to take part in the three phased qualitative study had been extended across an International Foundation Programme (IFP) STEM pathway cohort. The cohort, enrolled on this IFP do not only study language but also STEM subjects related to their conjected pathway. Thirteen participants responded and were recruited. From the original thirteen, three

participants indicated interest in participating in a mini-focus group and subsequent semi-structured interviews, which limited the potential data. The participants each had experience of practicing reflection as part of the construction of an e-portfolio of course work and were pro-topic. To meet ethical requirements, informed consent was attained from each participant, one of whom was known to the researcher.

Data collection

Qualitative methods were chosen for the study. The reasons for this were that qualitative research methodology offers researchers the opportunity to enquire into the beliefs, assumptions, values, and practices of individuals (Braun, Clarke, and Clarke, 2013). Definitions of qualitative research methodology vary (Hatch, 2002), though essentially, qualitative research methodology gathers meaning through the words of research participants which subsequently constitutes data (Braun, Clarke, and Clarke, 2013). Data collection through, questionnaires, focus groups and semi structured one-to-one interviews offer an effective way of capturing opinions and deepening discussion of earlier responses during interviews, reflecting case study methodology (Yin, 2002).

Crucially, the data captured in this study seeks to draw out and communicate relative perceptions and understand more deeply participants' reflective practice actions and behaviours in relation to the learning context. Given their living experience of reflective practice in the context of their course, it was possible to focus on the participant's narrative as the expert informants (Auerbach and Silverstein, 2003).

Initial questionnaire survey questions (see Appendix II) were designed to capture participants' understandings and previous experience of reflective practice and how it might have supported their academic development. Further questions attempted to capture the participants expectations and views of their current contextual reflective practice and its implications for transferability to their STEM pathway subject and future practice. The participants' responses in the survey were then examined and provided a base upon which to construct key questions for the mini-focus group interviews. These were then conducted using video call technology. The objective was to capture deepened responses to gauge participants' perceptions of their reflective practice on the course, further, to ascertain how participants connect its relevance to their STEM pathway subject and future studies (see Appendix III). The initial data analysis provided possibility to delve further during the phase three one-to-one interviews with participants. These interviews again took place using video call technology. The questions (see Appendix IV), sought to examine in still greater depth the

participants' perceptions, attitudes, and sense of value towards reflective practice, to glean what might be at the core of any initial reluctance to practice it.

Inductive thematic analysis

Inductive thematic analysis (Clarke, Braun, and Hayfield, 2015) provided a framework to code the data. By collecting, reading and re-reading the data, the aim was to stay as close as possible to the meanings therein, and for it to become familiar and to notice themes. The themes were identified and became categories for coding (Fereday and Muir-Cochrane, 2006) and organising nascent patterns (Xu and Zammit, 2020). Codes enabled the possibility to interpret, explain and conclude resultant implications from the contextualised data, and compare with similar codes from previous studies (Tan, 2021). This strengthened impartiality.

Codes generated

The procedure for code generation were both 'data-derived' and 'researcher-derived' (Clarke, Braun and Braun, 2015, p.276). Table 1 provides a clear thematic structure of the identified themes and sub-themes.

Themes	Sub-themes
Attitude towards reflection	Improvement Increased confidence Identified transferability
Value of reflection	Self-knowledge Enhanced integration Accountability
Perception of how reflection supports STEM supports STEM subject learning	Initial uncertainty Lack of self-motivation in STEM units Feeling forced

Table 1.Thematic structure

Each phase of the data collection constituted researcher questions and the participant responses for thematic analysis, these responses were grouped accordingly providing further thematic groupings where sub-themes were teased out. To illustrate this, Table 2 shows researcher questions, samples of data and related codes identified. The process of data analysis and code generation was used iteratively for all three phases of the study and aimed for the codes to be as 'concise as possible' (ibid.).

Phase 1 Survey Questions	Response	Codes
If you did practice reflection in your previous institution, did it help you develop academically?	It was mainly talking about where we could improve	improvement
	Looking at the feedback on homework or exams or quizzes.	evaluation
	which area I am weak in, and so I could put more effort there.	focused effort
During your course, do you think you have deepened your reflective practice?	Not really, I haven't really had time or have the chance to reflect on my progress.	no improvement
	Yes, because I seldom did that before	improvement
Do you feel your reflective practice on the English Unit develops you academically for your STEM pathway discipline in higher education?	We will write a reflection... we also need it at the end of the course	transferability
In the future, do you think you will continue to develop your reflective practice as part of your STEM subject academic studies? If so, could you say how?	for STEM, I do look at my work/ when I work through questions, I take note of the topics that I struggle with and supplement it with extra reading or practise	improvement

Table 2. Tabulation of codes identified from sample data responses.

Phase 2 mini-focus group Questions	Response	Codes
During your IFP English Language Unit, do you think you have developed your reflective practice? If so, how have you developed?	making sure we're actually applying what we're learning… so it's not like I know we're learning new skills or it was about just reinforcing them'	reinforce
How do you think reflective practice might be valuable in your STEM subject?	So I think reflecting would be really helpful, like learning techniques, if you're doing it actively passively seeing what works best for your personal preferences	self-knowledge
Phase 3 one-to-one interviews Questions	Response	Codes
Based on your performance during the IFP, how do you perceive reflective practice supports your STEM subject learning?	It's a skill that you can use unrelated to what subject are using it like you can learn anything.	transferability
'Based on your performance during the IFP, how do you perceive reflective practice will support your potential achievement in your STEM subject?	it doesn't matter which STEM subject, it could help if you do it for yourself. But again, students aren't really motivated just by themselves	unmotivated
	the things we can identify when looking at others, we can't see them looking at ourselves and, in that sense, reflective practice would be valuable	valuable

Table 2. Tabulation of codes identified from sample data responses (continued).

Phase 3 one-to-one interviews Questions (cont.)	Response	Codes
Now you've talked about reflective practice in more depth, how would you summarise your attitudes and perceptions of reflective practice?	it's just feels a bit forceful because then I have to create some sort of like superficial connection	forced
	looking back on those notes that I wrote after doing every assignment and looking at my teacher's feedback and relooking at the assignment, it really gives me a different perspective…. after the whole year, I think that's really useful.	useful

Table 2. Tabulation of codes identified from sample data responses (continued).

From these themes sub-themes were identified, which are discussed in the main findings below. The value of such detailed methodological process ensured response to the research questions.

FINDINGS

While the data suggests that the participants learn to value and appreciate the process of practicing reflection, it revealed as previously mentioned, some initial participant scepticism towards reflective practice and uncertainty as to what is expected and how to approach it. The study participants view regular classroom activities that provide reflective practice, at the very start of classroom learning, rather than at the session end, to be potentially preferable. Further, there is a perception that participation in reflective practice felt sometimes forced on participants. Although participants are more likely to engage in the process when it is rationalised through theoretical underpinnings and literature, the STEM pathway case study participants are unlikely to be motivated to devote time formally to practice reflection outside of classroom learning environments. Overall, reflective practice activities are viewed as positive, yet participants perceive these to be lacking in their lived experience of learning environments.

The themes emerged inductively from the data set. The sub-themes were identified according to the

terminology within participant comments and correspondingly grouped. Below, the themes and sub-themes are presented with anonymised extracts from the data to illustrate the findings.

Phase 1: Theme - Attitude towards reflection

Survey participants attitude towards reflective practice in phase 1 illuminated skills improvement, increased confidence and recognised the transferability of reflective practice. As such these were identified as sub-themes of attitudes towards reflection.

Sub-theme - Improvement

One participant commented that at the end of each term for each subject, they reviewed and evaluated their learning progress, not only reflecting academically but on their 'personal development'. Another participant responded that they had practiced reflection while studying film as a diploma, and while it was 'mainly just for marks', the focus had required students to identify where they could improve. Another participant commented that: 'It helped me become more independent and improve my skills on my own'. Essentially, among participants who took the survey, one common feature was that reflective practice helped them improve.

Sub-theme - Increased confidence

Participants identified that reflective practice led to increased confidence and in turn might help students develop academically, with one participant responding:

> I don't believe reflecting on previous work could help someone academically, but I do believe it can boost one's confidence in their writing as they can see their progress throughout the portfolio.

 Another noting it had helped them cover 'gaps in knowledge' and see how much they had developed.

Sub-theme - Transferability

When asked whether participants felt reflective practice on the English Unit develops them academically for their STEM pathway discipline in HE participants could see the connection with their future studies with one respondent commenting that: '¡Reflective practice allows me to review the academic knowledge that I have gained, preparing me for future learning in my pathway'.

In sum, the phase 1 participant responses and attitudes towards reflection opened some interesting sub-themes which align with student development in general, such as self-improvement, boosted self-confidence and transferability to future studies. As such these sub-themes allowed exploration in greater depth, and to seek to understand how participants value reflective practice.

Phase 2: Theme - Value of reflection

In the phase 2 mini-focus groups, the emerging overarching theme was the value of reflection. Transferability to STEM pathway subjects was explored and participants commented that 'self-knowledge develops', being identified as a sub-theme. Participants felt how reflective practice is 'integrated' into sessions could be better managed, and that an increase in 'accountability is needed', subsequently identified as sub-themes of how participants view the value of reflection.

Sub-theme - Self-knowledge

When asked how they think reflective practice might be valuable in their STEM subject, one participant reported that it strengthened a deepened understanding of personal preferences and as such, their self-knowledge:

> So, it doesn't depend on the subject you're studying, because it's more about yourself because you are an instrument of your learning. Your mind is an instrument of your learning, and so reflection is about getting acquainted with it.

With the development of self-knowledge, reflective practice can support independence development, potentially contribute to enhanced self-confidence, and reinforce agency (Archer, 2002).

Sub-theme - Enhanced Integration

One participant felt more regular practice, better integration into sessions, and some process of reward for undertaking reflection could further stimulate engagement and motivation:

> Maybe we could do it more often, also in a more entertaining way. But sometimes, I don't really have motivation to do it - like a bonus point - I think that would be helpful. Anything more entertaining than it is would make it more appealing.

And another participant felt that developing an embedded, regulated approach, with a central storage

of reflective accounts responding to more specific questions could make it more achievable:

> We were supposed to do the reflection in the end of each week, but we sometimes skipped it in class because sometimes short on time. I think we would benefit from having a certain place which records our reflection and that we can go back to and see how it was changing throughout the course.

This participant also felt more specific questions would be helpful:

> I feel it's sometimes daunting for people to have a very broad question like, reflect on your learning or tell us what you have learned from this week because it's very broad and you sometimes don't know what to think about, and so maybe something more specific is needed.

Another participant felt that the time to reflect would be better at the start of sessions, to reduce the lack of engagement with reflective practice when left to individual motivation:

> Maybe, it could be at the beginning, and then we can reflect and then we'll go on with the class - something to make it more time constrictive too 'cause if it's at the end, it's just open, whenever you want to do it, and nobody is really going to set the time just to answer 3 questions.

This participant also felt strongly that the reflective questions should be specific and that would cause less uncertainty: 'Sometimes I'm just like, so what do I do now? You know, I read the question, but I'm not sure what it's exactly asking'. The ambiguity and lack of direction of the reflective practice questions is something participants view as significant and illuminates where superficial, descriptive formulaic and performative reflections tend to arise (Moon, 2004; Macfarlane and Gourlay, 2009; Macfarlane, 2016).

Sub-theme - Accountability

There was also a position that there should be enhanced accountability that would require a more open shared space:

> Having for example, a padlet or like very specific place, a shared place to add our reflection and or ideas. It can be private sometimes of course, like OneNote as in our private little

folder, but I think it's just because it is like very private there. You don't feel like there's accountability. So, it's just for you, so if you don't want to do it, you just don't do it. But if you do, it is helpful.

Overall, findings in the phase 2 mini-focus group offered bountiful responses and identify the value of reflection from the participants standpoint. Nonetheless, the findings also reveal a need for greater question clarity, purposeful time put aside at the start of a session to engage with reflective practice, and that there should be accountability so that the students feel a sense of motivation to practice reflection.

Phase 3: Theme - Perception of how reflection supports STEM subject learning

The focus in phase 3 sought to explore in more depth initial attitudes towards reflective practice and the STEM pathway student's perceptions of how reflective practice supports STEM subject learning. The findings show that participants vocalised initial uncertainty, lack of self-motivation in STEM units and feeling forced.

Sub-theme - Initial Uncertainty

When asked about their initial attitude towards reflective practice, one participant responded: 'Honestly, I felt like it might be pointless. I don't really see how it would help at the beginning, but then when we did, it showed me that it could be helpful'. Another participant initially viewed reflective practice as artificial:

Well, in the beginning I didn't like it that much because it felt artificial like a task that is intended to make you reflect, but it doesn't make it properly and so it's just like unnecessary, and I didn't like it at all.

Sub-theme - Lack of self-motivation in STEM units

When asked to consider their STEM subject units, the participants were asked to think about how they thought the units might provide greater opportunity to practice reflection, one participant felt that were it not obligatory when leaving laboratory practice, students would lack the motivation to practice:

You can't even leave [the lab] without showing the instructor your comments so you really don't have an option. So eventually everybody does it, but if it's just up to students, then

people won't really do it.

The lack of incentive to complete reflective practice is an interesting thread in the data, since this offers educators the opportunity to align reflective practice as a way to strengthen students' motivation to learn (Andrade and Du, 2007; Fullana et al. 2015).

Sub-theme - Feeling forced

When asked how they would summarise their attitudes and perceptions of reflective practice, referring to the accelerated English Language unit, participants saw the use of reflective practice but also the opportunity to allow more flexibility in the reflection process: 'It just feels a bit forceful because then I have to create some superficial connection between what I actually really feel I truly learned, and you know the guidelines'.

The data suggests that to foster practice of reflection, which is more natural and less rigid or forced, more authentic reflective practice activities should be designed as a way to meet the aims of the study.

Discussion

The study is distinctive in its context since it has primarily explored the views and attitudes of International Foundation Programme STEM pathway students towards reflective practice. The findings indicate that participants in this case study do perceive reflective practice leads to improvement, supports development of self-knowledge and independence. These views are positive and illuminate opportunity for further development. However, participants also initially view reflective practice with uncertainty and scepticism, which was further explained by the desire to receive accountable class-time opportunities to practice reflection to enhance engagement. Even though participants see the value and transferability of reflective practice in general, and to STEM subjects, there is an attitude of initial reluctance and lack of motivation and engagement. Moreover, the requirement to align individual development against ILOs, is perceived as essentially restricting expression of the natural authenticity of the personal learning experience, creating a negative viewpoint and attitude towards the final reflective assessment. By positioning this small-scale case study in the current discourse about reflection in HE, several illuminations emerge that resonate with the literature and support the view that learners require reinforcement in understanding how to start to reflect (Hibbert, 2013; Ryan, 2013; Ryan and Ryan, 2013; Trede and Smith, 2012; Tan, 2021).

The secondary aim is to understand what might cause initial reluctance towards reflective practice. The hesitation towards reflective practice, seems in part due to participants viewing reflective practice as being artificial and forced on them. This could stem from the fact that reflective practice is unfamiliar for STEM pathway students arriving to study in Higher Education from schooling which Macfarlane and Goulay (2009, p.458), argue might be more 'formal and technical'. In fact, prior to commencing the IFP, for roughly a third of the phase 1 participants, practicing reflection on the English Language Unit was a first experience. However, for those who had had previous experience of reflective practice, it had not been embedded into their daily or weekly coursework, but rather, in a range of different experiences. For example, one participant had been required to practice reflection in one of their research subjects. They were instructed to keep a first draft of every piece of work they had to do in a development portfolio to 'reflect on it later on'. Importantly, most learners arriving from their secondary education, having regularly achieved good grades for STEM subjects, are unlikely to have been required to produce written reflective accounts of English language learning. Ash and Clayton (2009) point out that reflection is often 'associated with "touchy-feely" introspection', that it is too subjective to evaluate and 'lacking in the rigor required for substantive academic work' (p.27). This could give rise to some students questioning the efficacy of the summative reflective presentation of development claim, causing reluctance towards participating in the process of reflective practice and completion of the final assessment.

As reinforced by Leigh (2016), reflective practice is likely to be uncompleted unless it is assessed. This echoes participants acknowledgment of the tendency to 'skip' completing final reflective practice questions at the end of class, and could also explain initial reluctance and ongoing lack of self-motivation. Additionally, the reflective questions at the end of class are perceived as vague and lacking in specificity, and participants are uncertain about how to convey their reflections on the class-based learning activities. As such, this might also be a contributing factor for uncertainty. Uncertainty regarding how to practice authentic critical reflection about development of their written work or knowledge construction for assessment is a further consequence and relates to the subsequent lack of motivation and risks production of formulaic reflective assessment responses.

This reinforces arguments maintained by Macfarlane and Goulay (2009), who refer to assessment of reflection as 'behavioural conformism' (p.457), and that rather than assessment of reflective practice being only deemed effective if it creates change (ibid.), instead what might engage learners more could be 'critical engagement with a range of perspectives' (ibid.), the focus of which could be

analysis of varying perspectives on critical reflective practice. As such, both the participant attitudes and the causes for reluctance towards reflective practice, have some implications for education development and assessment.

Assessment of reflective practice could support how learners develop greater awareness of what matters most to them as their STEM subject identity emerges and the importance of adapting to professional practice in their chosen discipline. Thus, to enhance transparency, reimagining ILOs in part to include specific focus on subject related critical reflection as a key outcome (Ash and Clayton, 2004), could enhance trust and vindicate the purpose of reflective practice, making assessment more meaningful. Ash and Clayton (2004) argue that it is insufficient to depend on student testimonials and self-reports to assess the 'quality of their learning' and 'the meeting of learning objectives' (p.138). Hence, measures asking students to demonstrate how they have developed greater understanding, ability to apply knowledge, problem-solving skills and cognitive development would enrich the assessment process (Eyler, 2000). Were this to be in tandem with STEM subject incidents, students could be better empowered to make the connection to their STEM pathway units, while enriching the process of reflection and deepening learning.

The third aim of the study is to determine implications for educational development. Firstly, there is a call for teaching students how to reflect (Ryan and Ryan, 2013). Hibbert (2013) suggests structured or semi-structured tools such as 'guided journals' (p.808), while sentence starters as aids to start written reflection would provide a structured and scaffolded primer to reflective practice and could help empower learners with a way into the process, reducing uncertainty. This support may enhance and sustain learner intrinsic motivation to practice reflection of their own volition. Additionally, introducing accountable classroom learning activities might enhance regular and perhaps spontaneous engagement in reflective practice and motivate students to take responsibility further. Besides this, practicing reflection as a collective (Trede and Smith, 2012), could cultivate a sense of duty, thus engaging learners in a mutually trusted environment (Fook, 2015). Andrade and Du (2007) propose that creating engaging activities could enhance learner motivation in reflective practice.

While critical reflective pedagogy already underpins activities in teaching materials used in the context for this study, engaging learners in critical reflective practice from the outset could strengthen the lived experience. Secondly, refashioned ILOs that invite the potential for more creative assessment and steers away from risking formulaic and potentially performative (Macfarlane and Goulay, 2009), assessment responses could inspire learners to deepen practice. This

means that if ILOs and assessment were more specific and less 'rigid', and also considered STEM subject learning, students might view reflective practice of English development with greater enthusiasm and inspire deepened practice. Significantly, participants indicate that reflective questions lack specificity creating uncertainty. Consequently, devoting class time and embedding regular 'interludes' (Hibbert, 2013, p.808) at the start of class could enhance motivation and engagement, help shape learner agency (Archer, 2002) and foster identity as emergent reflective practitioners. Regular 'interludes' could provide space for reflection that allow students time to critically reflect and critically question their learning. Critical incidents can be the pivot upon which the 'interludes' provide thinking, discussion and written reflection to take place. Furthermore, Ryan and Ryan's (2013) premise that for successful reflection, dynamic resources and 'explicit and strategic pedagogic intervention' (p.255) is necessary, thus introducing some tangible implications in terms of making space for both individual and group reflection work.

Trede and Smith (2012) argue for better empowerment of students through educator participation in group reflective practice with students, allowing greater meaning to emerge from the process of reflective practice through the foci of their shared professional identity. For example, mutual involvement between educator and student in regular group reflection, perhaps monthly at the start of class and providing formative feedback on reflective writing could help reduce uncertainty and foster self-belief as well as reduce early scepticism.

Finally, there is opportunity to enhance motivation by embedding clearly planned rationalised reflective practice activities into classroom learning at the start of the academic programme. Hibbert (2013) argues that when learners fail to participate, the neutrality and mutually supportive environment of a community that constitutes shared values is impinged upon. Hence, introduction to reflective practice should be scaffolded, be at the start of class and regularly embedded in activities which are accountable and engaging and transparent in terms of expectation. Fook (2015) proposes 'ground rules' (p.448), which includes creating a confidential and respectful environment that fosters acceptance and non-judgementalism and separates the reflective analysis from the need to 'make changes or take action' (p.448). Similarly, Hibbert (2013) suggests 'learning contract' (p.808), and as Trede and Smith (2012) state, by building a strong classroom rapport, mutual trust will manifest. Doing this from the outset could help reduce classroom power dynamics and is likely to strengthen students desire to participate in reflective practice in a deepened more meaningful and authentic way. What is clear is that offering regular critical reflection practice as pedagogy, opens possibility for greater intercultural exchange within the classroom learning environment,

though for STEM students it could be more authentic and meaningful if it were reflection-on-practice of their scientific subject.

CONCLUSION

While the study was limited by participant numbers, the interpretations presented in this case study have exposed that although participants view reflective practice at first with scepticism and uncertainty, learners recognise the potential benefits. In turn there are potential educational developments which could help strengthen learner engagement with written reflective practice. These involve the need for STEM pathway students to become adept in reflective practice within their subjects, evolve with enhanced self-knowledge as this makes reflective practice especially valuable for these learners. Therefore, reflective practice can be introduced early and regularly with educator involvement and with a view to empower individuals. There is opportunity to potentially integrate regular reflective practice moments or 'interludes' (Hibbert, 2013) with facilitator participation and create authentic reflection as part of STEM pathway student learning. However, without accountability, students are less likely to engage in reflective practice independently. Therefore, designing problem solving engaging activities at the start of class with mutual educator involvement and reflective activities, could support learner engagement. Further research is needed to understand the extent to which these recommendations can contribute more to learner engagement in reflective practice.

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APPENDICES

Appendix I

English Language Unit Intended Learning Outcomes (ILOs)

By the end of the English Language Unit, you will be able to:
1. Research a topic by reading linguistically complex academic texts
2. Critically evaluate the effectiveness of a linguistically complex written text
3. Synthesise information from two or more academic texts
4. Use appropriate tone and register when writing academic texts
5. Give a presentation on an academic topic in their field of specialisation, using linguistically complex language
6. Critically evaluate the effectiveness and appropriateness of a presentation

Appendix II

Phase 1 Survey questions

1	In your own words - what do you understand by reflection?
2	In your previous educational institution, did you practice reflection? If so, can you give an example?
3	If you did practice reflection in your previous institution, did it help you develop academically? Could you explain how?
4	Now, think about your current IFP English Unit studies. 1 = lowest 10 = highest: To what extent do you agree or disagree with the following statement: 'My expectations of the English Unit was that I would develop my reflective practice'
5	How often did you expect reflection to be incorporated into your English unit? Daily/ Weekly/ Monthly/ Once per teaching block/ Not at all
6	Do you feel your reflective practice on the English Unit develops you academically for your STEM pathway discipline in higher education? Could you explain how it does/ doesn't?
7	Have you used reflective practice on the IFP English Unit to make any particular academic developmental changes in your STEM subject unit, if so what?
8	During your IFP English Unit, do you think you have deepened your reflective practice? If so, how?
9	In future, do you think you will continue to develop your reflective practice as part of your STEM subject academic studies? If so, could you say how?

Appendix III

Phase 2- Mini-focus group interview questions

1	(OQ1) What comes to mind when I say, 'reflective practice'? What sort of things does that make you think about?
2	What makes you think that? Can you give me an example? / In terms of your academic development around reflective practice.
3	(KQ1) During your English Unit, do you think you have developed your reflective practice? If so, how have you developed?
4	Do you think reflective practice is valuable on the English Unit?
5	What makes you think that, that it's valuable
6	Are there activities that you think would have been valuable in helping you develop your reflective practice but that you weren't offered?
7	Do you feel you received enough guidance for developing your reflective practice on the English Unit?
8	How do you think reflective practice might be valuable in your STEM subject
9	Do you think your reflective practice on the English Unit is valuable in developing you for being reflective in your STEM pathway discipline?
10	Have you used reflective practice in your STEM subject unit, if so how?
11	Do you think there are differences between reflective practice on the English Unit and on your STEM subject, in terms of the sort of things, you will need to do in the future?
12	Do you think any development should be made to the IFP English Unit in terms of developing IFP STEM pathway students in reflective practice?
13	What makes you think that? Can you give me an example?
14	Now you've heard other participants' views, have your views changed at all?

Appendix IV

Phase 3 – One-to-One interview questions

1	So, in the focus group discussion last week we talked about reflective practice. And I'm interested to investigate in more depth what your initial attitude was to reflection when you started the IFP and what and why that might have changed. So, what was your initial attitude towards reflection?
2	OK. And so, based on your initial attitude toward reflective practice, what has changed? And what do you think formed your new view of it?
3	Did you value it? What made what made you feel that or think that?
4	What do you think formed your view of how you value it, how you practice reflection and how you value it differently?
5	Based on your performance during the IFP so far, do you think you now value reflective practice differently? How do you value it differently? How?
6	How do you perceive reflective practice supports your STEM subject learning?
7	How do you perceive reflective practice will support your potential achievement in your STEM subject?
8	Thinking lastly about your IFP STEM subjects, how do you think the units might offer greater opportunity to practice reflection?

Science teachers' perceptions of the role of language in pedagogic practices in plurilinguistic EMI settings in India

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ABSTRACT

Supporting learners' understanding of science-specific concepts in English Medium of Instruction (EMI) contexts is challenging due to the multiplicity of registers and languages at play, yet a vital element for learners to progress. Understanding teachers' beliefs and experiences of using multiple registers and languages of the EMI science classroom is a crucial step towards achieving this goal. The present study was conducted during the Covid-19 pandemic across two continents (India and UK) via four three-hour activity- and reflection-oriented online professional development workshops with a set of science educators (n=20) involved with the English medium education school system (chiefly the primary and middle school levels) in India. The workshop was led and facilitated by two language specialists with English for Academic Purposes backgrounds. The aim of the study was to explore the science educators' beliefs about the role played by the multiple registers and languages used in their teaching environments when they teach subject-specific concepts. We used a sociocognitive framework to design the activities for the workshops and, through a thematic analysis of the recorded transcripts, explored the teachers' responses and beliefs as they evolved during the workshops. Despite the limitations of our findings, we found that the participants showed a strong awareness of the language challenges faced by their learners, especially at a word level. Their reflections on their practices indicate they were skilled meaning negotiators between different languages and keen on plurilingual approaches in their classroom. They had some understanding of the communicative purposes of registers, which further developed during the workshops. We were also able to explore the latent relationship between conceptual understanding and language use. For instance, some held on to the view that the language of textbooks is a neutral conduit of facts, while the concept of 'construal' challenged others' perspectives.

KEYWORDS: Language Awareness (LA), science teacher education, concept formation

INTRODUCTION

Most educationalists would agree that classroom environments characterised by knowledge creation are preferred to those in which knowledge is simply replicated. Such epistemically rich environments that support learners to actively generate and validate their ideas are built on teachers' understanding of the role the various languages of the classroom play in creating new knowledge (Fulmer et al., 2021). Language in all its varieties and forms can potentially enable both concept creation and concept representation and is the most fundamental epistemic catalyst teachers have to create rich learning environments (ibid). Yet, teachers' understanding of how to orchestrate these languages to build such epistemically rich, deep learning environments depends on teachers having a good degree of teacher Language Awareness (LA), defined as 'the knowledge that teachers have of the underlying systems of the language that enables them to teach effectively' (Andrews, 2007, p.ix). This applies to all content areas, including science.

The Indian school science teacher faces specific challenges of the plurilingual constitution of the classroom, where the medium of education can be a regional language or English. English Medium Instruction (EMI) also takes varied forms, depending on the school's funding body (state or private), and each state board's policy on what medium shall be adopted and at what grade. Despite this variation, a common concern that many EMI teachers in India have is the extent to which the students' understanding of the content suffers when the medium of instruction is different to their heritage language (Briggs et al., 2018). With the intricacies of teaching in a plurilingual, postcolonial context, such as India, it is therefore crucial that EMI teachers have confidence in supporting their learners' knowledge generation practices whilst drawing on all the various languages and semiotic resources available to them.

Current models of Language Awareness (LA) for EMI teachers, such as the one proposed by Xu and Zhang (2022), emphasise the importance of content teachers being language-aware and language teaching-aware. This not only involves knowing what roles the learners' heritage language(s) and English play in the knowledge building processes in their context, but also recognising the discourses of postcolonialism that enable certain power hierarchies to sustain between the various languages in play. Furthermore, as each disciplinary register has its own language patterns and communicative purposes, teachers benefit from an awareness of the variations among different registers found in the science classroom and the social situatedness these registers are aligned with (Schleppergrell, 2004; Rose, 2006; Daborn et al., 2020).

To our knowledge little attention, however, has been given to the cognitive dimensions of the knowledge generation process by EMI specialists. That is, the role of *language,* not only for communicating meanings, but also as a constitutive element of the concept formation process, is often overlooked. We argue that successful knowledge generation in EMI settings rests on teachers not only understanding how to develop learners' ability to communicate meanings, but also understanding the cognitive meaning-making processes involved, through the navigation and manipulation of the classroom's multimodal and multilingual semiotic networks. Referred to as 'symbolic competence' (Kramsch, 2006, p.251), this involves the ability to understand how learners might interpret (multiple) meanings of concepts from discourse features of different languages and registers in the classroom, by appreciating how word choice and different linguistic forms can affect conceptual understanding.

With these concerns in mind, we set out to conduct a series of online professional development workshops conducted via Zoom during the Covid-19 pandemic to explore 20 Indian EMI science educators' (school teachers and teacher trainers) understanding of how language is a fundamental epistemic catalyst, thus providing them with the means of moving beyond simply viewing language as a 'labelling system' (Sutton, 1992, p.53) and a vehicle for transferring or replicating information, to one which highlights its meaning-making potential. In effect, the workshops carried dual aims: a. through various task-based exercises and discussions, to provide these science educators with the means to explore and critique the various semiotic modes available to them to bring about an eventual epistemic transformation in their own local contexts; b. through the generated discussion and output, to provide the facilitators qualitative data on the Indian EMI science educators' beliefs about the role of language(s) in their pedagogic practices.

Based on the concerns of the Language Awareness model that places the meaning-making process at its heart, and keeping in sight the Indian context, these are the key research questions that drove the workshop and our investigation:

1. What are the beliefs of school level science teachers in India about language use of various registers that inform their pedagogy?
2. How do school level science teachers in India reflect on the role of language when teaching subject-specific concepts?

3. Underlying the above two questions is the larger context of multilingualism: how do school level science teachers in India incorporate the inherent multilingual resources of the classroom when teaching subject-specific concepts?

India's Language and Pedagogy: A Brief Context

It is important to locate the sociocultural and linguistic specificities of this workshop's participants and facilitators. Since the participants were all from India, the Indian linguistic context became a key factor for the research questions, designing activities, and eliciting responses. Given the large number of languages used across the country (Mohanty, 2006), the school-level education system broadly follows a three-language formula (Hindi, English, and a modern Indian language) (Pattanayak, 2003). More recent government policy formulations like the National Education Policy (NEP) 2020 have stated no particular language is mandatory in the education set-up, and there are increasing efforts to integrate the advantages of bi- and tri-lingualism in school education (Morve and Maurya, 2022). The application of these policies on the ground, however, is very varied.

Based on funding sources and governance bodies, Indian schools are broadly divided into three types: government funded public schools, privately funded but government subsidized schools, and privately funded and privately run schools (Mousumi and Kusakabe, 2022). Schools, public or private, may teach English as a subject or use it as a medium of education. Most public schools use the dominant regional language as the medium of education (Tickoo 1991, 1996). The lure of private schools is that most are (or claim to be) English medium schools (Mousumi and Kusakabe, 2022). Although English is not the L1 or even L2 for most people in India, especially those from rural or tribal backgrounds whose exposure to English is nil even through social channels, the cultural aspiration for EMI education is widespread. So, when there is a move from a regional medium to an EMI school at a higher grade, or when children from regional medium backgrounds apply to national colleges, the learners invariably suffer due to linguistic gaps and face both learning difficulties as well as social ostracization from those for whom English is accessible socially and academically (Morve and Maurya, 2022). Children in non-EMI contexts may often not even use the standard dialect or regionally dominant language of the state. Education policies and pedagogic practices, therefore, need to focus deeply on not only what language is the medium of education in a particular geographical region but also on harnessing the inherent plurilingual nature of (Indian) classrooms.

Theoretical underpinnings of the workshops

Despite the complexity of teaching in a language that is different from the students' and often teachers' heritage language, EMI practitioners rarely receive guidance on how to overcome the language challenges they encounter in the classroom (Xu & Zhang, 2022). Yet, as previously mentioned, the effectiveness of EMI as a pedagogical approach depends on teachers being language-aware and language-teaching aware. Efforts amongst EMI teacher-educators to address this need have perhaps understandably focused on teachers' awareness of the strategies used to develop their students' language skills such as speaking and writing in English, and more recently their understanding of the role their students' L1 plays in the learning process (Lu et al., 2023). However, teaching any subject also requires an awareness of the subject's specific language patterns and features. Whilst often not a focus of teacher educator programmes, there is amongst EMI specialist the recognition of the crucial importance of developing disciplinary literacy awareness amongst content teachers working in EMI settings at all levels of education (Krulatz, 2020). An influential theoretical approach taken by teacher educators on such programmes is Halliday's systemic functional linguistics (SFL) that places and emphasis on the correspondence between the communicative goal and the language structures selected.

If used by EMI science educators, SFL can help learners develop a critical awareness of how subject knowledge is co-constructed across the different registers of that subject (Seah et al., 2011; Avalos et al., 2017). Unlike traditional approaches to grammar and lexis, SFL pairs for each linguistic unit the form and function that reflects the communicative purpose of the unit (Halliday, 2007). Understanding meaning making in science as a social practice this way has provided teachers with the necessary concepts and metalanguage to highlight and explain lexico-grammatical variation across registers, including scientific writing, traditional textbooks and new media registers.[1] It also provides them with a greater awareness of the social situatedness of the language of science. Less prevalent in current EMI pedagogy but increasingly recognised as an enabling framework for content teachers to be able to support their learners' access to their subject's abstract concepts is cognitive linguistics (CL) (Deignan et al., 2022). Closely aligned with SFL, cognitive linguistics (CL), emphasises the importance of linguistic 'motivation'. Instead of treating language patterns and choices as arbitrary, CL treats language use as reflective of more general cognitive processes, which

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[1] Widdowson (1979) provides a model of three broad register variations within science: science as a discipline, found in journal papers, which assumes largely shared knowledge and modes of expressions, and is meant for communication between specialists in the field; science as a subject, which is a discourse between teachers and students, exemplified in textbooks, whose didactic and explicit rhetoric derives from and shapes pedagogic methods; and science as a topic of interest, between a journalist and the lay reader, found in newspapers and magazines.

are related to our embodied meaning making capacities and are mediated through culture (Littlemore, 2009). Cognitive linguists look at language use in the real world to find plausible explanations for different meanings of grammatical patterns and polysemous words that are often related through metaphorical extension. Applying this principle to the classroom can heighten learners' understanding of the key concepts (Sutton, 1992; Brown, 2003). For example, by explicitly exploring the effectiveness of certain analogies and frequently used metaphors together, e.g., a greenhouse for understanding the greenhouse effect or pump to understand the heart, can help learners develop a deeper understanding of the concept and the reasons why we use certain words to describe and explain it.

Being a usage-based approach to language, language development in an EMI setting from a cognitive linguistic perspective can be understood to be a situated practice, involving general cognitive processes in which a strict separation between languages, (e.g., English and the learners' L1) and modes may be unhelpful. Instead, it acknowledges that meaning-making that typically takes place in an EMI classroom is fundamentally a multimodal enterprise involving a full range of semiotic resources (Fröhlich, 2019) that draws on the experiential knowledge of the learner (Kolb, 1984). This holistic view of the learner acknowledges all the meaning-making resources learners bring to the classroom, including their cultural and multilingual schemas. This view opens a more fluid approach to language practice in plurilinguistic classrooms than immersion settings that uphold a strict separation of the learners' heritage language and the target language. Proponents of this cognitive view maintain language work involves not only translating between the two languages by code-switching whereby the form-meaning relationship is disclosed, but also by 'multilingual elaboration' (Boers, 2021) or 'grammatical translanguaging' (Llopis-Garcia, 2019) through which learners actively look for associations and patterns across the languages they use to build knowledge. Drawing on these principles, participants were actively encouraged to draw on all their linguistic resources, to make sense and share their insights mirroring the multilingual pedagogical practices that they could then enact in their own teaching. During the workshop themselves, multiple languages were in use during the discussions; the participants also reflected on their classroom practices of using several languages (discussed below). They also talked about accommodating students' inability to write lengthy answers in English during class tests by offering alternate ways of answering questions such as through diagrams (discussed below).

METHODOLOGY

Participants, Investigators, and the Workshop Set-Up

There were 20 participants in this workshop, a mix of mid-career middle and high school science teachers from English medium schools in India, one early-career English teacher who also works as a substitute science teacher at the primary level, a freelance adult educator, one science educationist who is also a middle-school teacher, one graduate researcher, and four full-time science teacher trainers. At least three Indian language groups were represented, but communication in the workshop sessions was primarily in English. The participants were selected on the basis of an application form, which included a short essay-type response on what role language plays in their classrooms. The entire workshop was conducted online (over Zoom), and was recorded with the participants' explicit consent after receiving ethical approval from the researchers' respective institutions. The digital recordings were fully transcribed by the researchers. To ground our interpretations, we returned regularly to the original recordings and used the research questions posed to ourselves at the beginning of the workshop to interpret the transcripts, first independently and then together to discuss emerging themes and also to enhance inter-coder agreement or 'interpretive convergence' (Saldaña, 2009, p.27).

We (the two researchers), come from different cultural backgrounds but have a common background of English for Academic Purposes. We wanted to avoid a top-down prescriptive approach; hence, the sessions were designed as dialogic spaces around a text or topic, and were reflective in nature rather than theory-heavy. We called ourselves facilitators during the workshop, and envisioned our role as encouraging discussion around selected topics, and introducing key concepts and enabling meta-language at vital interventional moments. We viewed our methodology as transformative pedagogy, one which is mediated by its participants, concepts, social interactions as well as texts and artefacts (Johnson and Golombek, 2020). Such an approach of collaboration and constructive dialogue has great benefits for both researchers and teachers so that research and practice may inform each other rather than be at cross-purposes, given that the aim of both is improvement in student learning (Sato and Loewen, 2022).

The analysis broadly takes an ethnographic approach in order to understand the 'worldview of the participants' (Cohen et al., 2017, p.292), i.e., to explore the participants' views and beliefs about the role language plays in the knowledge construction process in their own teaching contexts and to observe how these views developed throughout the sessions. During the four online workshop sessions, some of the exercises and texts presented for discussions were on topics taught in Indian

schools (e.g., infectious diseases and electricity), but there was also a lateral focus throughout the workshop on Covid-19 because of its experiential immediacy, sociocultural relevance, and pedagogic potential.

FINDINGS

Understandings and beliefs about (classroom) registers

The SFL concept of register was familiar to most of the participants (evidenced through their ability to identify various registers), though they may not have consciously dwelt on it within the bounds of the classroom practices, especially from a sociolinguistic perspective. We (the researchers) began with the assumption that the various registers associated with the classroom (see Figure 1) are in a relationship of dynamic interplay, in that the boundaries between them are often blurred.
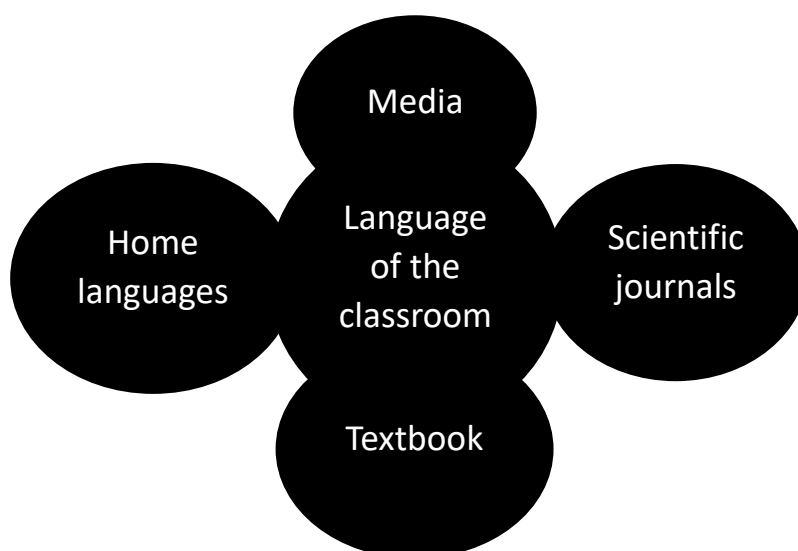

Figure 1: Registers relevant to the science classroom

To understand the participants' beliefs about registers, they were presented with extracts from different sources their learners and they (as teachers) may encounter inside and outside the classroom. These included media reports, multimodal health campaigns, and textbook chapters on infection. They were asked to identify each register and justify their answers by exploring the extracts' lexico-grammatical features. The aim was to develop a critical awareness of how scientific language varies across a range of contexts according to their communicative purposes. One participant PD, commented on the communicative purpose and linguistic features of home language thus: 'home language we use for communicating between family members…[with] family members, family friends. More of local words, local language words are used than technical words'. An

immediate difference noted by PD and some other participants between home language and the language of scientific journals was the use of 'technical words'. Participants' reasoning suggests an awareness that the variation in language features, especially at a word level, from the desire to communicate effectively to the intended audience.

Ample literature suggests that teachers heavily rely on textbooks as sound sources of information, and treat entire bodies of knowledge as cohesive and neat encapsulations (Agnihotri, 2010). The language of textbooks is commonly imagined as a neutral conduit for fact-heavy knowledge, unmediated by sociocultural factors. Therefore, in this workshop, we paid special attention to collaboratively and critically analysing samples from science textbooks. Given that science textbooks, in particular, tend to represent science as a set of facts to be learned could be one reason that learners tend to believe science is 'encyclopaedic and immutable' (Lyons, 2006, p.597). The primacy of textbooks influences the choice of strategies teachers use in their teaching (Andersson-Bakken et al., 2020). This makes textbooks a vital register for critical enquiry. PN contrasted textbooks with scientific journal writing by commenting on its 'easy to understand' style:

> Actually textbook language is concept based. It is easy to understand comparatively to research papers than mostly it is specific and application-based words are always utilized in textbooks, who is involved: students, researchers, scientists, and the language features are some words will be there, some technical words will be there, but the language will be suitable for these students.

The explanatory power of textbooks as well as its accessibility was rated quite high by all the responders, especially when compared to the language found in scientific journals. Many reported that they use their textbooks as a key source of ideal language as well in the classroom. At the start of the discussion, PY said the language of a particular textbook extract was telling us how '*it* [disease] *is*', a set of neutral, permanent facts:

> I think, because here it's mostly just stated that what exactly happens. This is just what happens and it's a description of any disease as such, right from the infection period and the latent period and the symptoms so here, it is clearly telling you totally neutralised, in a neutral condition that how it is, it is not indicating regarding any other person as such.

PY uses the expressions 'just what happens' and 'telling you totally neutralised' to describe the purpose of textbooks, which supports Lyons's (2006) observation that much science in textbooks is presented to learners as a decontextualised set of facts. However, with some further close reading of the language of the extract, and by focusing on the features of this particular register, the participants were able to question the high explanatory value of textbooks as they had initially argued. PD pointed out that textbooks are likely easier for teachers than for students:

> the teachers it is easier because they are teaching again and again and in the same class if they are teaching it becomes simpler for them, familiar, but for the students, it is not the case because at all repeated…but still for the first time when they hear the words and try to underline the text in that textbook and find out the answer…It becomes more like fact delivering machine than…understanding the content.

This observation that textbooks can act as a 'fact delivering machine' points to how conscious reflection on a traditionally accepted source of knowledge may lead teachers to question their unquestioning reliance on it. In this case, the participant is also pointing out the mediating role of the teacher between the student and the textbook, and how the textbook is not equally accessible to everyone. Our aim was to show that like all other sources of knowledge, the textbook is really a 'mediating tool,' a cultural artefact that has been developed to 'shape people's understanding of and interaction with the objects around them' (Andersson-Bakken et al., 2020, p.1321). By eliciting this particular response, we were able to show that the dependency on textbooks can be questioned through an analysis of its language.

Focusing on the language patterns found in textbooks this way drew on the core cognitive linguistic concept of 'construal' (Langacker, 2008). This concept acknowledges that we witness objects around us from a human perspective. The fact that we choose words to express a phenomenon implies there is no purely objective view of it. Drawing the participants' attention to this appeared to heighten PX's critical awareness towards the seemingly neutral language of textbooks. This was evident in later conversations, when PX noted:

> Even the…direction, which we have of fertilization, and in textbooks, you know that it's the sperm chasing the egg, the egg is waiting and you know all these things if you… it it's not it's not neutral, there are unconscious biases there.

By reflecting on such construals, the teachers were able to challenge certain assumptions they held about the creation of some scientific concepts through their encoding in language. Such conceptual formations may be shaped by and reflect gendered and other biases (as in the case of the personification 'chase'), which such critical examination can further expose.

Beliefs about concept formation and meaning-making processes

Another key concept for meaning-making is through metaphors (and other figurative tropes) in pedagogic and scientific discourse. Due to its ubiquity in language (Lakoff and Johnson, 1980; Kövecses, 2002) and wide use as a device to explain difficult abstract concepts in pedagogical settings (Cameron, 2003, Low et al., 2008; Brown et al., 2016), we provided the participants with some explicit explanation of the structure and functions of metaphor, including personification, simile, and analogy through examples the participants were expected to have come across in their professional spaces. By making figurative language usage explicit, we aimed to demonstrate that even seemingly non-figurative genres like textbooks rely heavily (and inevitably) on figurative language use. We discussed the relative merits and limitations of some of these metaphors. PZ commented on some standard analogies that science teachers frequently resort to when explaining key concepts:

> I'd say a heart as a pump is a better analogy than the water rope analogy for electricity. It doesn't explain voltage very well there's so many things about the comparison that are not good for that, it could actually lead to misunderstandings.

This example demonstrates a developing awareness of the limitations of such commonplace metaphors in science classrooms. As many of the participants found it hard to unpack why certain analogies and metaphors are more or less effective, we invited participants to offer metaphors for their then-new experiences of the Covid-19 pandemic. The participants felt that the more effective metaphors were those that compared the pandemic to a natural phenomenon, such as a volcano, a tsunami, or a fast-spreading fire, since each of these metaphors signalled to the user the imagination of the pandemic as natural and unstoppable. PB noted that many in Asia had in fact 'personally witnessed a tsunami' and had 'seen the devastation,' which made a natural calamity a particularly effective metaphor. PN noted that the pandemic was like a 'train without any brakes on', which evokes images of death and destruction at a very high speed. Such metaphors triggered past experiences of the participants, reinforcing the point that lexical items and concepts closely related to the learners' experiential knowledge may provide a more powerful starting point on which new

knowledge can be built. Others suggested 'waves', 'nightmare', and a 'pause button', each of which lent something different to the interpretation of the pandemic.

Participants were also encouraged to pay attention to the frequency of personification in science textbooks, especially apparent in verbs, for example, 'antibiotics are used to *fight* disease' (Roberts, 1986) frequently found in definitions and explanations that, according to Krennmayr (2017) translate the subject matter into a familiar experience. Towards the end of this activity, some participants appeared to become more confident in recognising figurative language and more explicitly aware of their potential use to teach abstract concepts. PN was receptive to this idea in particular, and the discussion prompted her to detect the use of metaphor and personification in her chemistry teaching: 'Very often atoms or molecules and different elements like to do something so it's very personification, they do things like share electrons, gain electrons, give away electrons'.

At the same time, they were also expressing the high possibility of misconceptions to become solidified when an inappropriate metaphor or analogy was used (see above example by PZ). On similar lines, the cultural appropriateness and effectiveness of metaphor was also discussed. For instance, PA commented on the use of metaphors like 'blueprint' in an extract from the World Health Organisation website on vaccines.[2] She evaluated this metaphor and suggested that it would be impossible for her grade 8 students to make sense of what a blueprint meant, and thus, it was an ineffective metaphor (and text) for them 'usually we don't make use of such words in science so this is something really difficult for students to understand'.

Using the multilingual resources of the classroom

Closely linked to cultural appropriateness is cultural alienation, especially relevant in the Indian context where, as outlined above, EMI in most cases does not overlap with the language(s) students use outside the classroom. For an activity that took place early in the workshops, one of the researchers read out a passage on photosynthesis in German, once without any supportive aids, and a second time (still in German) with a labelled diagram. The aim was to explore what feelings may arise in students when they encounter concepts in an unfamiliar language, and how they may make sense of them. After each reading, the participants were asked to reflect on how they felt. Most responses were affective, veering towards anxiety and confusion. The Padlet-recorded responses of some of the participants is given in the image below:

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[2] The extract she used is: 'Vaccines contain tiny fragments of the disease-causing organism or the blueprints for making the tiny fragments….'.

1. What features of an explanation make it accessible? 2. What are the pedagogical implications? (e.g., use of L1 and L2?)

Because of the rotation

2nd one was a bit slow paced as well

Once the important word we could understand then we started getting the other word meaning too

Picture explanation

Easier to understand. Though a few words could be identified, it gave an idea of the topic. Because of the image we could follow what was being said. And also the pronounciation of some words could also be understood

The second explanation was with figure which helped to relate to the words. also you were speaking slowly and focusing on important words

Labelled diagram made it easy to understand, partly because we already know the concept. It helped a bit to understand German as well, though very little 😊😊

The second explanation was much easier to comprehend. the image shared on the screen helped connect the words that were spoken, and the written words were helpful as well. key words in the second explanation were also articulated slower, and with more emphasis

The second one was easier because of the diagram and the labels. It was therefore easier to follow the proper nouns and make connections because we know how photosynthesis works.

The second explanation was more easy to understand as it was audio visual presentation which helps teaching learning activity more effective.

2nd was easier to understand as picture gave better interpretation of unknown words. Was able to relate words with picture

Explanation 2 was easier than the first one due to the picture.

The visuals added to the explanation made it better for understanding.

L2, because of the picture.. also having written words helped in recognising/ deconstructing a new word (from a new language)

L2 was definitely easier due to figure along with the explanation. L1 will be easy for someone with a science background who can get the grasp of few words related to the concept and able to join the dots.

Figure 2: Meaning-making using multimodal resources[3]

Participants reflected on their own experience of this activity and discussed how unfamiliarity with the target language can cause distress to learners, both in terms of grasping a concept and in assessment of learning. They also commented on the helpfulness of diagrams for comprehension, and PN, using the process of 'multilingual elaboration' (Boers, 2021), elucidated: 'I drew on my knowledge of the English words glucose and photosynthesis to help me understand the German'. These terms share lexical cognates with the English equivalent terms. In other words, students make use of conceptual knowledge from other languages and from their real-world experiences in the science classroom, and teachers need to be cognizant of this. This also implies that when the concept and the language of instruction are both unfamiliar, there will be much greater difficulty in the process of learning.

Several participants displayed awareness (and worry) about the difficulties of those students who are not comfortable with English in grasping scientific terminology and abstract concepts in an EMI setting. For instance, PV wondered what language was best to teach science in: English or the student's L1. Her opinion was that 'language should be known to the child, or at times, most used by the child'. Otherwise, it may lead to 'reading but not understanding'. For most participants, multilingual strategies or on-the-spot translations among two or three languages were common because their students are from different linguistic backgrounds. So, while the school may mandate teaching in only one language (often English), the participants stated that they use a mix of languages to explain concepts. PS commented on being a constant translator when teaching:

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[3] Some participants misunderstood the symbolism of L1 and L2 in the question. In the responses recorded on Padlet, L1 refers to the first reading in German and L2 to the second reading in German coupled with a labelled diagram.

> And I used to keep an English chemistry book, and a Kannada chemistry book, and as you see that in science and there's a lot of common language right and they [the learners] make sense of all the formulas and everything I'm teaching and, and I asked the students to tell them in Kannada, what it means, decode back in English, and then I used to explain it to them.

She further elaborated on translations *within* a language, emphasizing how registers play a role in communication:

> So in the English language we translate between scientific language and lay language lay language and home language, so all these various languages and the translations that we carry out.

This reflection on not only multiple languages in use but also multiple registers in use was an important outcome of the discussions.

To aid students, PA pointed out that she allows for pictorial rather than verbal responses in middle-school exams so students can explain their conceptual understanding while bypassing English:

> Yes, there are few students who faced problem in writing answers, especially when there is use of scientific words. So [in] the exams, I allow them to write pictorial answers. So if not words, they're allowed to express their answers in form of pictures.

Turkan & Lui (2012) have pointed out that when students do not have facility in a language, they are often unable to demonstrate their knowledge. Hence, assessment practices have to be cognizant of students' limited facilities with a certain language and offer alternative resources which the student can draw upon. Specialized subject-specific language in science education is challenging for all students and more so for second language learners (Karlsson et al., 2019). In a multilingual society, additive bi- or tri-lingualism, may offer resources that can be used to facilitate the transition from home to school and ultimately foster greater language awareness and learning empowerment. The other side of the issue that arises with EMI in a multilingual society is the loss of students' ability to use their home languages in the classroom. This is a challenge among urban schools, with their preponderance of English, sometimes at the expense of reading and writing abilities in the L1. PS pointed out this hierarchy in languages and the desirability of English at the expense of expertise in

other languages. She explained how her school's policy is to try and include other languages not simply in informal but also in classroom settings:

> we try to take one particular topic every year… and make sure they are taught in the Hindi and the local language, so that the students and the parents are also forced that the kids should learn the language, so that that particular topic say for example water is going to be taught only in Hindi, only in Kannada, which means that the parents also will show some importance for the native language.

It is well-recognized in research that in a multilingual context, a sustainable system is one where different languages are deployed for different purposes within the school's pedagogy, the learner's strongest language is used to provide effective literacy, and languages are put to cooperative use so that educational and social tasks are shared. How these may be implemented in the actual Indian EMI classroom in a formal sense is still nebulous, but the move towards plurilinguality is certainly desirable. Here, plurilinguality is intended to mean an awareness of how different languages and their cultural inputs may contribute differently to knowledge creation in the classroom leading to richer epistemologies; it also points to being conscious of the linguistic context of the EMI school in India, where students (and teachers) may find their greatest ease of learning in different languages other than the target language. Studies on multilingual classrooms state that optimal learning takes place through various semiotic systems put into use simultaneously; a heightened awareness of the interplay of these systems, registers, and broadly language itself, will be grounds for enhanced pedagogic practices. PT also highlighted the interactive nature of the exchange between herself and her learners, demonstrating a co-constructive approach in her teaching. She chose the metaphor 'decode' to describe the process of going back and forth between the languages to unlock meaning and process information. Other participants used different metaphors to describe their translation practices: PY used 'bridges' (hinting at social mediation): 'then you've got to find bridges' and PB used 'untangle' (creating simpler links or highlighting pre-existing connections between concepts and meanings):

> But the scientific meaning is slightly different but often it's based on something in the, in the home language, but it's I think our job as teachers to untangle that and try and help them with that transition.

Such metaphors (decode, bridges and untangle) reflect a complex reality of what science teachers experience when operating within a hybrid space between their everyday articulation of the world and a more conceptually driven one, as well as when various languages and registers are available to them and their students.

DISCUSSION AND CONCLUSIONS

Our project set out to explore how our participants perceived the role of language in plurilingual EMI science classrooms in India. We looked at the extent to which they saw the various languages and registers operating in the classroom as a basis of classroom members' conceptual architectures and concept formation processes. We further explored the perceived relationship between misconceptions and language, and therefore, how, by together examining these misconceptions through a socio-cognitive linguistic lens, we can better understand the ways we use language as educators.

Our findings showed that although our participants had at the start of the workshops some awareness of the different registers, especially at a word level, and their communicative functions, they tended to view science textbooks as a source of neutral facts. By comparing extracts from textbooks alongside other registers of the classroom, and by introducing the cognitive concept of construal some participants, they began to acknowledge the mediatory role of the textbook in the concept formation process and the power these texts have in shaping students' (mis)conceptions, whilst not relinquishing their reliance on textbooks.

By introducing some theory on metaphor in educational contexts into the dialogic space of the workshops and by drawing the participants' attention to the use of metaphors and other figurative tropes in pedagogical materials offered by the participants, the power of metaphor as a cognitive and cultural heuristic device in the concept formation process became increasingly apparent to some of the participants. This was evidenced through the pertinence of the examples they provided and their critical reflection on the effectiveness of the metaphors as a tool for conceptual understanding amongst their students.

Our findings also revealed that our participants, being mainly experienced practitioners, were strongly aware that the meaning-making processes taking place in their plurilingual science classrooms involved drawing on a full range of linguistic and multimodal repertoires their learners had. This affords an approach to thinking about language as a means to negotiate meaning, or as 'an

interpretative system' (Sutton, 1992, p.53) and one that may lead to epistemically rich spaces in which knowledge is created and not merely replicated. By reflecting on their meaning-making practices in their plurilingual contexts, the participants were able to acknowledge and reaffirm their own roles as negotiators in this dynamic knowledge building process. Despite English being the ultimate target language in their EMI classrooms and formal assessment practices, the participants expressed the need for classrooms to embrace the full range of available linguistic and multimodal practices.

Our adopted framework, derived from cognitive linguistics, sociolinguistics, and teacher Language Awareness, informed our fundamental assumptions about the role of language in conceptual knowledge, and the importance of the awareness of language use and its features. We avoided an overly prescriptive top-down approach of instructing how to achieve this, and designed the workshops to provide a collaborative, cooperative, and reflective space, so that the participants may express their developing awareness of the critical role of language in their classrooms. Through the use of certain key features of language like registers, metaphor, and contexts of multimodal and multilingual classrooms, we attempted to foreground the role language plays in all pedagogic activities. Finally, although it would have been interesting to explore how the approach translates into classroom practice, this lay beyond the scope of the study. Instead, we focused on working the participant teachers to collaboratively and critically analyse commonly used sources of knowledge and pedagogy like textbooks. Our assumption is that the more aware and reflective the teachers are of the way language shapes concepts, the more creative and effective they will become as teachers. The study had some limitations as well. Due to the pandemic and lockdown, the workshop sessions were held online, and because of screen fatigue and technological limitations, could not go beyond a few hours on the four days. As with all online participation, the participants were sometimes hesitant to speak up or put their ideas in chat, and the peer bonding and spontaneous (and charged) conversations that usually take place in in-person workshops were missing to some degree here. For this reason, it was difficult to capture the full extent of participants' views, especially those less familiar with digital spaces.

We hope to expand this project in the future by bringing in teachers from varied backgrounds, including state and private schools, urban and rural schools, and help them collaboratively reflect on their understanding of language and conceptual knowledge, and discuss the strategies and materials they use (or would like to create) to support learners' accessing content through the various

linguistic and cultural resources available to them, which would ultimately lead to a more involved, critical, creative, and reflective stance towards pedagogic practices.

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Are you talking to me? Influence of cultural background on international students' willingness to participate in open-class interactions (online and face-to-face)

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ABSTRACT

This exploration is aimed at establishing international students' expectations in terms of teacher-student interactions in open class and the factors determining their willingness to respond when nominated to answer an open-class question. A survey amongst a cohort of international students on a pre-sessional course at a UK university was conducted followed by semi-structured interviews. Results from the survey indicate that less than 30% of participants expect the teacher to nominate a student to speak. Most participants said they are willing to answer even though almost half of the respondents feel nervous when the teacher nominates someone. Among the main factors determining students' willingness to answer an open-class question are a self-perceived low level of language proficiency and the fear of embarrassing themselves if the answer is wrong. Surprisingly, a large proportion of students said they would speak in a larger group, whereas three of the four interviewees said they would not. A link between the willingness to answer on the one hand and the belief it would impact on students' final score on the other was established. Most participants in the survey and three of the four interviewees prefer interacting in the face-to-face classroom. However, the small sample is a considerable limitation for coming to a more generalisable conclusion, especially as to students' interaction in terms of the mode of teaching (face-to-face or online). Results from this study provide further insights into international students' expectations in terms of tutorial behaviour and the factors behind their willingness to respond when nominated in open class. These findings can heighten educators' awareness of more subtle cultural differences in terms of students' perceptions of classroom dynamics and thus modify their classroom approach when interacting with students, especially when nominating them to answer a question. The implication is that nomination might not be a feasible pedagogical tool in the EAP classroom. The study can provide insights to educators working with international students in an EFL context too.

BACKGROUND AND CONTEXT

Pre-sessional courses at UK universities aim to prepare international students for their chosen programme of study by developing their academic writing skills and discussion skills. The place and nature of spoken interaction at HE level have been extensively discussed in the literature (Alexander et al., 2008; Aquilar, 2016). Meaningful participation in seminars is aimed at developing students' critical thinking skills and subject specific knowledge. The importance of developing oracy skills for disciplinary study and students' further career has also been emphasised by Baker and Heron (2023). In the case of international students and particularly those from a Confucian-heritage culture, participating in discussions and open-class interactions can sometimes prove to be challenging. The reasons behind it could be closely related to cultural traits and previous learning contexts (Wang, 2013; Hodkinson & Poropat, 2014).

The present study was prompted by a student's feedback on my classwork in terms of nominating students to speak in online synchronous classes. The student shared that it is the students' expectation that I call out names in order to answer a question so that quieter students have a chance to speak. My reluctance to nominate was based on three factors:

> 1. Empathy and care towards their feelings as calling them out might put them on the spot and embarrass them in front of others if they do not know the answer or do not want to speak. This is related to the concept of pedagogy of kindness which advocates empathy towards our learners (Denial, 2019; Gorny-Wegrzyn and Perry, 2021).
> 2. The expectation that at this level they should be responsible for their own agency and independence as learners, as explicated in the graduate attributes (University of Glasgow) and also discussed elsewhere (Ai, 2017; Kung, 2017; Salfipour et al., 2017).
> 3. Technical obstacles – in an online class if I am screen-sharing and interacting with them, this prevents me from seeing them and nominating the ones who did not answer as I am looking at the document on the screen and typing/ inputting their contributions.

One of the reasons behind my not nominating students was my expectation that they should be more autonomous, which turned out to not be the case in reality. Differences in expectations between teachers and students are discussed both in Safipour et al. (2017, p. 9), Ali (2017, p. 491) and more recently by Agostinelli (2021), and in online environments by Kung (2017) - the teacher expects students to be mature and responsible for their participation at higher level education but they expect the teacher to nominate someone because it is a chance to reply and get a higher grade as corroborated by student 1 in the present study. Discrepancy in both groups' expectations in terms of developing oracy skills for disciplinary study have been discussed in Heron et al. (2021) and Bakon and Heron (2023).

My initial observations were that most students are quiet when asked a question in front of the whole class in synchronous live class. My hypothesis (based on informal chats with students) is that the main reason for that is feeling shy to speak in front of many people. I was interested to explore the other reasons that might determine students' unwillingness to speak in this situation as well as their expectations of the teacher's role and behavour in class, particularly in terms of nominating them. Furthermore, I wanted to establish if the mode of teaching (online vs face-to-face) is a factor in students willingness to participate in open class interactions or when the teacher poses an open class question in particular. The following research questions were posed:

> 1. What are students' expectations in terms of teachers' nominating them when asking a question in open class?
> 2. What are the factors determining students' willingness to participate in open class synchronous sessions?
> 3. To what extent does the mode of teaching (online vs face-to-face) impact students' willingness to participate in open class interactions?

LITERATURE REVIEW

Willingness to communicate (WTC) has been extensively discussed in literature and various factors have been reported behind students' motivation to participate in classroom interactions. MacIntyre et al. (1998) proposed a conceptual model to account for the interplay of psychological, linguistic and communicative variables behind learners' WTC. Using their model as a framework for analysis, Cao and Philp (2006) added interactional context as a variable. They looked into WTC in open class, group and

pairs and found that even though individual students' patterns varied across contexts, whole class interactions were lower than the other two contexts (pp.485-486). Likewise, Zhong (2013) established that students demonstrate less willingness to participate in open-class interactions, but are more willing to interact in collaborative activities. This study will look at the respondents' attitude towards open-class interactions and being nominated in particular.

Even though there are studies trying to debunk the commonly accepted image of students from Confucian-heritage cultures as reticent to speak (Chen, 2000; Belchamber, 2007), there is a large body of literature pointing to culturally determined factors when it comes to international students' spoken interactions in Western educational context. Adapting McIntyre et al.'s framework for WTC to the Chinese EFL classroom, Wen and Clement (2003) discuss the linguistic, cultural and social psychological factors that might affect students' communicative behaviour in a Chinese setting. The authors offer a comprehensive discussion on the Confucian culture's perception of self and others and Chinese way of conducting themselves in public. Building on this work, Li and Liu (2011) further add to the evidence of culturally determined factors and collectivism shaping Chinese students' reticence to communicate in the EFL classroom. The influence of Confucian culture and views of education are shown to directly influence Chinese students' classroom behaviour despite some evidence that this is changing (Wang, 2013). This is further corroborated by Hodkinson and Poropat (2014) where the phenomenon of *kiasu* (fear of losing out) is discussed in relation to a broader cultural context, linking this to Chinese students' reticence to interact in the Western tertiary education classroom. The concept of *kiasu* linked to findings from the present study will be discussed in the Finding and Discussion section.

More recent studies investigating international students' reticence to participate in the Western classroom add other factors to the culturally determined one - self-perceived low language level (Safipour et al., 2017) and differences in students and teachers expectations due to differing learning contexts (Safipour et al., 2017; Agostinelli, 2021). Additionally, Wu (2019) reported low language proficiency level, face-saving and anxiety and introversion as reasons for lack of willingness to interact. Wen and Clemens (2003, pp.27-28) argue that teacher involvement – readiness to help students, providing resources, taking care of students' needs - is found to positively influence students' engagement. Another factor they discuss is teacher immediacy (verbal - use of we/our, students names, and non-verbal – positive nods, smiles), which is shown to significantly reduce students anxiety and

positively influence their WTC. The present study aims to probe into the reasons inhibiting East-Asian students to participate in open interactions in the western pre-sessional classroom.

International students' communicative behaviour online has been the focus of multiple studies. As early as 2001 Tu investigated Chinese students' attitudes towards social presence in online environments and found that warm relationships with peers and the instructor creates a comfortable atmosphere for learners to interact in a synchronous classroom (2001, p. 56). Similarly, in a study on Korean students' perceptions of teaching and learning during the pandemic 'warmth' was mentioned as a factor for students' interaction (Lim et al., 2022). The figure of the instructor was found to be among the factors affecting classroom behaviour of Asian students in an online classroom at a US university (Kung, 2017). 'Helpful/ friendly' and 'understanding' were among the high scoring teacher traits in a study of Chinese students' notions of teacher-students interpersonal behaviour (Wei et al., 2015, p. 140), while 'patient', 'friendly' and 'humourous' were mentioned elsewhere (Wu, 2019, p. 120). Wang et al. (2019) explored teachers and students' perceptions of teaching presence on an online course at a Chinese university and established that students place greater importance on facilitating discourse than direct instruction.

Investigating the experiences of three international students on an online distance education course, Zhang and Kenny (2010) found the language barrier to be the greatest obstacle to students' interaction in online classes. In a more recent survey of university students' attitudes towards online learning during the pandemic, lack of interaction and lower motivation were mentioned by participants (Zboun and Farrah, 2021).

METHODOLOGY
The following section will detail the project's aim, instruments for data collection, participants, methods of data analysis, ethical considerations and limitations.

Aim of the study
This study aimed to investigate pre-sessional international students' attitudes and response towards teachers nominating them in open class when asking a question. The factors determining their willingness to interact in open class were explored. Further, the impact of the mode of teaching on students' decision to interact was also investigated.

Participants and context

Participants were post-graduate pre-sessional students at B2 level of English (IELTS 6.0-6.5) on a hybrid course. They were attending the pre-sessional classes in order to achieve the required target score in English language proficiency and academic skills to enter their respective programmes. Two main teaching methods were employed during the course – seminars and tutorials. The latter are small-group teacher-led sessions where students consolidate and practise what they learned in the seminars. The project focuses on students' participation and interactions in the tutorial sessions.

Both online and face-to-face students were approached to take part in the study. 15 students responded to the questionnaire - 10 Chinese, four Thai and one Saudi Arabian students (13 face-to-face and two online students). 4 students volunteered to do an interview (three face-to-face and one online student; three Chinese and one Thai student).

Even though the study involves predominantly Chinese students, it does not purport to generalise about trends in this learner group, not least for the small size of the sample. It could, however, be indicative of existing culturally bound factors that might prevent international students from interacting more freely in the EAP/EFL classroom. Reference to Confucian-heritage culture is made when discussing literature in relation to Chinese students and is linked to contributions from three of the four interviewees from that nationality, the fourth one being Thai.

Data collection and analysis

Two instruments were used for data collection – questionnaire and follow-up semi-structured interviews. The same questionnaire and interview questions were used for both online and face-to-face students, the presumption being that all students have had experience of both modes of teaching prior and during the pandemic. Questions in the survey relating to factors determining WTC were adapted from Cao and Philip (2006). Questions in the interview were related to students' attitude and response to nomination, students' previous educational experience in terms of spoken interactions in the classroom, students' experience and opinion of online study. The survey was made using MS Forms to gather quantitative data in an excel spreadsheet. Interviews were conducted via Zoom and transcribed by the researcher.

Quantitative data from the questionnaire were analysed in an attempt to answer the research questions. Interviews were transcribed manually and subjected to inductive thematic analysis to

establish themes in respondents' answers in terms of their attitudes and expectations (Gill et al., 2008; Evans, 2018) and thus try to gain a deeper understanding of students' perceptions and reasons behind their motivation or lack of to participate in open class interactions. Even though I had an initial hypothesis as to the main reason for students' reticence to speak, I allowed the data to lead me and by performing recursive analysis through multiple reading of the interview transcripts, I managed to establish additional themes in answer to the research questions.

Ethics

Ethical approval was granted by the ethical committee at the College of Arts, University of Glasgow. All participants who volunteered to take part in the study were presented with and signed a consent form. They were also given a Participant Information Sheet to familiarise themselves with the purpose and nature of the study and their rights in relation to their participation in it. All data was stored on the University OneDrive or the researcher's personal code-locked device. A questionnaire was distributed among the online and face-to-face students via their Moodle class forums. Interviews with students wishing to participate were conducted via Zoom.

Limitations

The most obvious limitation of this study is the small sample. Nevertheless, interviewees provided interesting answers which corroborated findings from previous research and provided insights into the cultural reasons behind international students' decision (not) to interact in open-class situations. It would be interesting to explore the tutors' perspective and experience on nominating students in their EAP classroom.

FINDINGS AND DISCUSSION

1. What are students' expectations in terms of teachers' nominating them when asking a question in open class?

Results from the survey show nominating is not expected generally (less than 1/3 of respondents) but surprisingly, 70% (N=10) said they are willing to answer even though almost half feel nervous when nominated. This contrasts with tutorial experience shared by Belchamber (2007) in large ELT classes in China, where students expected to be nominated as a means to keep them focussed during class. Interestingly, nomination was also seen as a way to give them a chance to speak without "promoting" themselves (p. 62). Similar results are reported by Harumi (2011) who investigated Japanese students'

and teachers' perception of the reasons for students' reticence in the EFL classroom. Conversely, Lui (2006) found that putting students on the spot might cause anxiety and increase their reticence to speak.

Some of the reasons for students' expectations regarding nomination are discussed below along with themes emerging from the semi-structured interviews.

Student 1 brought forward the topic of *scores* as extremely important for Chinese learners. The student thought nominating is efficient as Chinese students might consider that the nominated students will get a chance to answer and get a higher score.

> Chinese students always think a lot and just talk "Oh yes that's right" but they don't want to talk more because they think there will be a lot of mistakes in discussion and the score will be low. They only pay attention to score. (Student 1)

The great importance of grades could be family and society-imposed in Chinese culture and is strongly related to the Confucian culture educational system (Wang, 2013, p. 70). This is also strongly supported by observations on Hong Kong students (Christopher Au-Yeung, 2017). In relation to achieving success and higher grades, Hodkinson and Poropat (2014) discuss the concept of *kiasu* – the fear of losing out. It points to a competitiveness, which is not a characteristic Chinese trait, but is more of a tactic to achieve a particular goal (obtain a higher score in our case or impress the teacher which could reflect on the final score). There are two types of *kiasu* – positive and negative. The former is related to making more effort doing extra work to achieve academic success, while the latter is using covert tactics to disadvantage the others so one receives a competitive advantage. This seems contrary to the idea of group cohesiveness discussed elsewhere (Wen and Clement, 2003) but is an important aspect which determines the behaviour of Chinese students in the classroom where they have to balance between face-saving and *kiasu* (Hodkinson and Poropat, 2014, p.436).

Even though nominating is seen as an efficient way to encourage participation (Student 1), it could cause issues with fairness of opportunity, which is again related to getting a higher score and achieving one's goals. Thus nominating turns into a tool of providing equal chance for a higher score.

> It is very efficient I think. Such like Chinese students always don't want to talk about anything. And he doesn't want to answer any questions so I think it is very efficient. But it is a problem

you need to have a lot of questions to answer. If you just take some people and other people will think "Oh someone who answered this questions (sic) will get a high score. Why didn't [the teacher] let me answer this questions (sic) so he will think that". Chinese students always think about the score, score score. (Student 1)

Indeed 'exam-oriented teaching' entailing preparing materials which would assist students in achieving higher grades is among the themes emerging from semi-structured interviews among higher education students in Hong Kong exploring their attitudes to effective teaching and the role of the teacher (Chan, 2018, p. 48). Treating students equally is an emerging theme under the label 'ethical' in a study investigating Chinese students' perceptions of the traits of effective college educators (Meng and Onwuegbuzie, 2015, p. 334). Equal treatment is likewise mentioned by Chinese students in a study on International students communication with their educators in an Australian university (Ai, 2017).

Embarrassing students if nominating them is among the initial ideas/hypotheses that prompted this study and, significantly, it was mentioned by two of the interviewees. Words they used were 'excited', 'nervous', 'stress'(student 1), 'embarrassed' (student 3).

I will think what is the question and how to answer that. Chinese people always think a lot. If you call their name, they will just answer that. I want to answer, excited and a little nervous because there is a lot of students. Chinese people are not external about their thinking. Chinese people are not good at presenting themselves esp when there is a lot of students. So I will feel nervous if my questions is not very perfect, the teacher has a different opinion or other students have different opinions about my answer, I will want to be absolutely true. (Student 1)

I think for classes which contain several people like 10, 11 or 12 it doesn't matter. It's ok if teacher wants to call our name. For some of our classmates in other subjects like social science the teacher just do it, its ok. In small group is ok, but in a large group like lecture I think students might be embarrassed. (Student 3)

Shyness and nervousness were among the reasons pointed out by almost 30% of respondents in a study investigating Japanese students' silence in the EFL classroom (Harumi, 2017, p.264). Anxiety and introversion were mentioned as factors determining students' lack of willingness to interact by Wu (2019, p.115).

In contrast, student 4 is an active participant in classes and is willing to answer even if not nominated:

> Well, I think maybe for me there maybe not so many difference if teacher do this or not because even if teacher do not ask different students name to answer the question I would like to answer the question. (Student 4)

The present study demonstrates ambiguous attitudes of students towards nomination. Even though most students seem to be anxious to answer open class questions, factors such as the opportunity to achieve a higher score prove to be external motivators for them to answer a question. Similarly, Harumi (2011) found that students' expectations for being nominated are not straightforward. Some students seemed to expect that turn taking would ensure a chance for participation (30%) (very much like Student 1 in the present study) but others shared they would not like to be singled out. Significantly, students' ideas of strategies teachers should adopt to encourage them to speak included 'do not force a reluctant student to speak' and 'display understanding of non-verbal behaviour' (2011, p.267). This is also mentioned by Student 2 in the present study by proposing that establishing eye contact can be a signal for the teacher to nominate someone thus avoiding nominating a student who is unwilling to answer:

> Sometimes teacher just looking at our face, there is eye contact between us so the maybe teacher will know that Ok this student is willing to answer her question even though they are not raised their hand to answer that question. So when the teacher has eye contact with the student she will think Ok, Mr A could you please answer that question? So he would know that ok mr A is willing to answer but he or she is just not raising their hand in the class so she is pointing that student to answer the question I think in this situation is ok, its fine. (Student 2)

Another theme emerging from Student 3 is the idea that nominating might signal appreciation on the part of the teacher: 'In a small group like a tutorial I think it's fine. Maybe teacher like (sic) me to answer, maybe teacher appreciate (sic) me so sometimes I may feel it's great, yeah. (Student 3)'. This is consistent with the idea of Chinese students' expectation of positive evaluation on the part of the authority (teacher) discussed by Wen and Clement (2003) and is closely related to the discussion of self and others and the way Chinese people place importance on the perceptions of others about them.

Focusing on learners' perception of teacher's care in particular, eye contact was mentioned among the non-verbal clues which show students are appreciated (Larsen, 2015). Using students names could also help build rapport and create a more comfortable learning environment. A survey of Korean EMI students on their perceptions of teachers using their names in class found that knowing students' names enhances students' motivation and engagement and builds positive teacher-student relationship (Murdoch et al., 2018). Interestingly, a small percentage of students viewed hearing their name in class negatively and one of the reasons being it was considered too intimate for a classroom setting. These points to the necessity of heightened awareness on the part of teachers about their international students previous learning context and culture, which would help build more comfortable learning environment conducive of greater engagement and interactivity on the part of the students.

2. What are the factors determining students' willingness to participate in open class synchronous sessions?

Language level

Factors determining students' WTC were adapted from Cao and Philip (2016) study where participants self-reported reasons for their WTC. The two most important factors chosen by participants in the present survey are self-perceived lower level of language skills and fear of making mistakes. A little over half of the participants (N=8) in the survey said they would be unwilling to answer due to their self-perceived low level of English language speaking skills. This was corroborated by two of the interviewees:

> Firstly, I am aware of my spoken language skills. I am afraid if I can't speak directly about my meaning. (Student 3)

> I am willing to discuss in a group, however the mistake is always flaw my discussion and that will be not a good thing such like Chinese students always want to be perfect[...]. (Student 1)

Low level of English language speaking skills has been investigated extensively and reported as one of the main factors for students' reticence to participate in classroom discussion/interactions (Cheng, 2000; Tu, 2001; Christopher Au-Yeung, 2017, Safipur et al., 2017). The fear of making a mistake due to their language level is invariably related to another phenomenon which has also been largely discussed

in literature and seems to be closely related to socio-cultural factors - face-saving, which will be discussed below.

Face saving

Being afraid that the answer is wrong was chosen by half the informants (N=8) in the survey and was discussed by two of the interviewees.

> Chinese students always want to be perfect. […] I want to explain that if you speaking in (sic) a lot of people you make a mistake, everyone will laugh at you.
> (Student 1)

> ...sometimes we don't attend class very carefully so we are afraid ff we can't answer the question directly
> (Student 3)

Face-saving seems to be an important factor for Chinese students' WTC in class and the fear of having their image marred is a strong factor determining their lack of desire to speak (Tu, 2001, p.52, Wen and Clement, 2003; Li and Liu, 2011; Zhong, 2013, p. 746; Wu, 2019). Similarly, Christopher Au-Yeung's (2017) findings are consistent with the fear of losing face if answering incorrectly.

Anxiety stemming from the potential danger of being ridiculed if the answer is not right is also coupled with the fear of disrupting group harmony.

> So I will feel nervous if my questions is not very perfect, the teacher has a different opinion or other students have different opinions about my answer, I will want to be absolutely true.
> (Student 1)

> Maybe sometimes if I have, if I know the answer directly and I know my answer is right, I may answer it. If I know every person can answer it, I can answer it, I guess. But if I think this question is difficult, however, I have the answer, in this situation I might not want to answer.

Interviewer: You mean if the question is difficult and you don't know the answer, you might not want to answer?

No, if this question is difficult, however, I have my own opinion and I think others don't have this opinion, I don't want to answer. I don't want to let others [sic] embarrassed.
(Student 3)

This is related to the collectivist slant in Chinese culture in particular, where face saving of the group is a priority (Littlewood, 1999, p. 79). Littlewood discusses two versions of the self (based on Markus and Kitayama) - independent and interdependent. The latter is characterized with avoiding forming and expressing opinions which might disrupt the harmony within the group (1999, p. 80). In a similar fashion, Peng and Woodrow (2010) argued that in Chinese culture if a particular behaviour is perceived to be non-conforming to the general norms, it would cause anxiety and unwillingness in the student to perform it. "Face-protecting" is also discussed by Wen and Clement (2013, p. 20) and is pointed out as a major factor determining Chinese students' decision to interact in the classroom.

Group/ Class size
The fear of losing face is closely related to the size of the group where the speech act occurs. Surprisingly, however, only two) of the participants in the survey said they would be embarrassed to talk in front of a larger group. In contrast, this is a theme that is particularly prominent among the interviewees in the present study.

No, I don't want to answer the question because in our undergraduate course the whole class is contains (sic) at least 60 people so it's a little bit embarrassing to answer teacher's question around sixty people.
(Student 3)

It depends on the size of the class. In tutorial I would prefer to answer the question if no one answer it but I will not be the person who actively answer the teacher question.
(Student 2)

Chinese people always think a lot. If you call their name, the will just answer that. I want to

answer, excited and a little nervous because there is a lot of students [...] Chinese people is not

good at presenting themselves, especially when there is a lot of students.

(Student 1)

In small group is ok, but in a large group like lecture I think students might be embarrassed.

(Student 3)

This anxiety to speak in front of a bigger audience could be related to cultural differences in terms of

educational systems and teaching and learning routines (Wang, 2013; Christopher Au-Yeung, 2017;

Safipur et al., 2017). In their in-depth discussion of Confucian-heritage culture Wen and Clement (2003,

p. 27) demonstrate the importance of group belonging for the Chinese - they are cautious and reserved

to outsiders to the group and shy away from interacting with outsiders of their group. Larger classes

prevent closer contacts and the building of group cohesiveness and thus create unease and anxiety to

speak in front of many people. The thought of the way others evaluate them is a major factor in Chinese

students' decision to interact in class (2003, p.20).

Student's personality, past educational experience, beliefs about importance of speaking in HE
correlated to WTC when nominated

In an attempt to delve deeper into the reasons behind students' decision to interact, the relationship

between their self-perception as speakers, their past experience of participation in speaking activities

and their beliefs about the importance of spoken interaction at university were explored and questions

to that effect were asked of the interviewees. Table 1 presents the results.

Student No	Self-perceived characteristics as a person/speaker	Past experience of speaking/ discussions	Beliefs about importance of speaking at uni	Willingness to answer when nominated
Student 1 (Chinese)	tries/wants to be sociable	Participation in discussions	Group work (discussion) is useful in finding solutions and it entails less responsibility	Will reply to get a higher score
Student 2 (Thai)	Will talk in educational/ work environments when necessary and if familiar with the interlocutor. Reserved when discussing personal topics.	No experience of taking part in discussions or spoken activities in educational context, only interaction in work environment	Very important. It offers exchange of diverse ideas between classmates and learning from each other.	Will answer if in a smaller group and if no one answers. Does not actively seek to answer teacher's questions.
Student 3 (Chinese)	Outgoing, likes to communicate with others, in Chinese doesn't like talking to unfamiliar people	Teacher occasionally asks a question, one-way communication, no interaction.	It's important to "output" their knowledge, which will help them focus on what they are learning.	In a smaller group, it is ok, in a larger group, will feel embarrassed. Feels maybe the teacher appreciates them if nominated
Student 4 (Chinese)	Sociable, likes to talk to people	Some experience of discussion and doing presentations	Being active is important because it shows how well you have understood the material; to exchange opinions, to develop critical thinking	Always likes to answer the teacher's questions

Table 1: Self-perceived characteristics as a speaker; past experience of speaking in educational environment; beliefs about the importance of speaking at university; willingness to answer when nominated

Even though a very small sample has been used in the present study, data from interviews show that there is no straightforward correlation between the student's self-perceived characteristics as a person and speaker on the one hand, and their WTC if nominated on the other. Such a positive correlation can be seen with student 2, who is shy and will avoid answering a question when nominated if possible. Shy personality as a reason for students' reticence is among the findings in a study by Wu (2019) and Hsu (2015) and corroborates earlier findings (Liu, 2005). Student 4 also shows a straightforward relationship between their outgoing personality and desire to participate in classroom interactions. With students 2 and 3, there is the anxiety to take part in larger groups and fear of being wrong but the external drive to participate to achieve a higher score (student 1) or because it is deemed important for one's academic growth (student 3).

In terms of their beliefs in relation to the usefulness of spoken interaction in HE, only student 4 exemplifies a direct correlation between the importance of the latter and their willingness to engage in it. Student 3 considers speaking at university important but will only reply and interact in smaller groups similarly to Student 2, who will only reply if the group is small and no one else replies. This is consistent with results from a survey of the attitudes of 354 undergraduates in a Taiwanese university in terms of spoken interaction in EFL class (Hsu, 2015), which reveals a discrepancy between students' beliefs about the value of such interactions and their actual behaviour in class.

All of the interviewees seem to show awareness of the importance of spoken interaction in HE both as a means of exchanging ideas and learning (Students 1, 2 and 4) but also for demonstrating their understanding and knowledge (Students 3 and 4). Indeed, developing oracy skills is seen as a necessary component of developing international students' academic literacies in preparation for university study (Heron et al., 2021). The authors in that study explored undergraduate L2 English speaking students and their tutors' expectations of the development of oracy skills for their programme of study. While tutors seemed to favour argumentation and criticality in students' contributions, students seemed to be more concerned with accuracy of their talk. The latter is evident from the contributions of interviewees in this study discussed in relation to factors determining their decision to participate discussed earlier (RQ2) - awareness of their lower proficiency level and the fear that their answer "might not be right".

Another dichotomy discussed in the paper is "oracy as competence" vs "oracy for learning" (in disciplinary contexts). The former has a focus on the linguistic aspect and is what students strive to

improve prior to their disciplinary programmes and the latter gives them the chance to demonstrate their subject knowledge (Heron et el., 2021, p. 295-296). Relating this to data from the interviews, it appears interviewees value speaking for its cognitive element in sharing knowledge and developing critical thinking, but at the same time see their language competence as an obstacle to participate fully and effectively in spoken interactions.

Surprisingly, past experience of participating in spoken interactions also does not show straightforward relation with readiness to interact with student 4 again being the outlier and reporting little experience in participating in discussions but willingness to be active in classroom interactions. Students 2 demonstrates a more direct correlation as they did not have extensive past experience of spoken interaction in classroom settings and are not eager to participate in such. Student 3 reports WTC due to the importance they place on such activities but only in small groups. Student 1 reports past experience of taking part in discussions and has a strong external motivation to participate when nominated due to the belief that it will positively affect their score, but mentions being 'nervous' in case their answer is not correct.

This lack of correlation might again be explained with culturally determined traits in those learners and not so much with their personality (see discussion of *kiasu* combined with other factors in Finding and Dicussion section (Hodkinson and Poropat, 2014). It would be interesting to investigate this further - a bigger sample would provide more insights as to the extent of the culturally determined traits and point to any trends and change in international students' behaviour as compared to past studies. Length of stay in the foreign country could also be a factor to acculturation into spoken interaction models but this study has only focussed on pre-sessional students who have spent several months in the English-speaking environment at the most.

3. To what extent does the mode of teaching (online vs face-to-face) impact students' willingness to participate in open-class interactions?

Results from the survey and the interviews seem to favour face-to-face mode when it comes to interacting in open class. Almost half the participants (N=7) in the survey are willing to answer an open class question in an online class while 80% (N=12) would answer in a face-to-face class. Two of the interviewees shared that they consider teacher-student interaction to be more difficult online due to lack of visibility of the tutor's body language (student 2) or technical issues preventing students from

asking questions (student 4). Student 3 said that face-to-face classes have closeness that would make them more comfortable speaking.

> There is no participation. There is no interaction between teacher and students. We cannot see the teacher's gesture. We can only hear her voice, even though there is camera but it's less effective for us to understand what the teacher said.
> (Student 2)

> Because online means we have distance. Face-to-face we have feelings. We are together so we are close, that feeling makes me feel I want to talk about something, make me not that embarrassed.
> (Student 3)

The above findings closely match those of Zboun & Farrah (2021), who investigated university students' perspectives of online learning and found that the online environment creates challenges like lack of interaction and participation, and lower motivation and technical issues. This is corroborated by Hodkinson and Poropat (2014) who suggest that the online environment decreases students' willingness to communicate.

Teacher's behaviour in the online environment seems to have a major impact on the motivation of learners to interact (Tu, 2001; Kung, 2017). Teacher's immediacy and engagement with learners was pointed out as a positive strategy by Japanese student respondents in a face-to-face EFL classroom (Harumi, 2011). Non-verbal clues, eye contact, positive nodding in particular were seen by students as strategies to encourage their spoken interaction. Positive, non-verbal clues were also mentioned as strategies to ease students' anxiety by Wen and Clement (2003). In a recent study on Korean EMI students' engagement in online classes, 'warmth' and 'care' were mentioned as a factor determining learners' levels of engagement (Lim et al., 2022, p.603).

Interestingly, the lack of closeness and anonymity of the online space would make student 2 more willing to answer an open class question.

But sometimes online class because when it's online we don't know each other, we don't see each other. We just open our microphone and answer the question and dismute" so no one will know who answers it.

(Student 2)

Anonymity is discussed by Hodkinson and Poropat (2017, p. 4380) as a caveat for participation. The authors also mention that online environments increase students' reticence to interact. This corroborates findings by Tu (2001) who conducted an extensive investigation into Chinese students' perceptions of online presence. Findings point to online interactivity creating feelings of stress and reluctance to participate among learners. It is worthy of noting that participants in the present study disclose similar concerns some 20 years after Tu's study.

CONCLUSION AND RECOMMENDATIONS

The present study aimed to investigate international students' attitudes towards being nominated in open class and the reasons beyond their decisions (not) to answer. Findings show that even though they do not necessarily expect it, they find it an effective way to encourage them to interact in open class and most importantly, a mechanism to ensure equal chance of participation which is presumed to reflect favourably on their grades. The latter seems to be a strong motivation even though class size and their perceived level of language skills might be obstacles to a decision to interact. The fear of losing face due to giving a wrong answer is a decisive factor for interaction as largely discussed in literature. Participants' beliefs about the importance of speaking at university and their willingness to interact were also investigated and no straightforward relation was established. Two of the four interviewees show a lack of correspondence between their self-perceived qualities as a speaker, the importance they place on speaking at university and their readiness to interact when nominated. When comparing online and offline mode of study, the participants in the present research show a preference for offline study when facing the need to interact in open class.

Differences in perception and expectations on the part of Western teachers and international students account for challenges and misunderstandings in the international classroom (Agostinelli, 2021). The present study was prompted by one such misunderstanding and misalignment of expectations. It is recommended that one possible solution would be to communicate to students the expectations and pedagogy behind what goes on in the classroom and build better rapport and relations with students (Salipour et al., 2017, p. 9-10; Wang et al, 2021). Learning students' names has been shown to have

positive results on students' motivation and engagement in classroom activities and interactions (Murdoch et al., 2018). Other ideas to boost students' interactivity include providing them with longer time to formulate their answer and letting them work in smaller groups/ pairs (He, 2017), creating group assignments whereby inter-group competition might foster intra-group cooperation (Hodskinson and Poropat, 2014). Strategies to encourage students' interactivity online include guiding them into what constitutes appropriate online interaction, creating a friendly atmosphere through assigning collaborative tasks and giving students a chance to talk about their own culture (Tu, 2001, p. 56). Other recommendations for online learning environments include cross-cultural communication training and cross-cultural instructional design including training instructional designers themselves (Kung, 2017, p.483). Badem-Korkmaz and Balaman (2022) offer an interesting discussion of tutorial strategies to elicit response when asking open class questions in synchronous L2 environments (p.15-17).

Findings from the present study point to the need for heightened awareness on the part of educators of subtleties in cultural differences and students' expectations when it comes to engaging in spoken interactions. Being empathetic towards their learners would help teachers create a comfortable learning environment, where students will benefit from their active engagement in classroom interactions. In terms of open class interactions, relying on body language (eye contact) as suggested by one of the interviewees in the present study might be a good way to gauge students WTC before nominating them to avoid putting them on the spot. Additionally, an open conversation with students about the development of oracy skills as a prerequisite for successful HE study needs to be considered along with a discussion of how this relates to transferable skills for future employment. This might impact on students WTC considering students' belief in the direct link between classroom participation and their grades as demonstrated by contributions of interviewees in the present study. An obvious limitation of the present paper is the size of the sample. Classroom observations can be conducted as an additional tool for exploring students' perceptions to open class interactions. This would be particularly useful for investigating differences in students' attitude towards interacting in terms of different modes - online/offline. Further research could also focus on exploring educators' attitudes and practices of nominating students in the international EAP/EFL classroom.

thank my current employer, Glasgow International College, for supporting me to present my findings at the 2023 BALEAP Conference at Warwick University.

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APPENDIX 1

Questionnaire

1. What is your nationality?

2. Are you an online or a face-to-face student on the pre-sessional July entry course?

Online / Face-to-face

3. When the teacher asks an open class question (to the whole class), I expect the teacher to nominate (call out names)?

      I strongly agree

      I agree

      Neutral

      I disagree

      I strongly disagree

4. When the teacher asks an open class question and nominates, I feel nervous

      I strongly agree

      I agree

      Neutral

      I disagree

      I strongly disagree

5. When the teacher asks an open class question and nominates, I feel

      Calm

      Nervous

      I want to reply

      I don't want to reply

6. When the teacher asks an open class question, I am willing to answer

      I strongly agree

      I agree

      Neutral

      I disagree

      I strongly disagree

7. When the teacher asks an open class question, I might be unwilling to answer because

      a. I do not know the answer

b. I feel shy to speak in front of the whole class

c. I feel my English is not good enough to express what I want

d. I am afraid of giving the wrong answer

e. I have technical issues (no mic, weak connection) (for online students only)

f.   Other - please specify

8. When the teacher asks an open class question and the group is larger than 5 people, I am willing to answer

I strongly agree

I agree

Neutral

I disagree

I strongly disagree

9. When the teacher asks an open class question and I don't know anybody in the group, I am willing to answer

I strongly agree

I agree

Neutral

I disagree

I strongly disagree

10. When the teacher asks an open class question and I know the teacher well, I am willing to answer

I strongly agree

I agree

Neutral

I disagree

I strongly disagree

11. When the teacher asks an open class question in an online (live) class I am willing to answer

I strongly agree

I agree

Neutral

I disagree

I strongly disagree

12. When the teacher asks an open class question in a face-to-face class I am willing to answer

I strongly agree

I agree

Neutral

I disagree

I strongly disagree

APPENDIX 2

Interview Questions:

1. What is your nationality?

2. Are you a face-to-face or an online student?

3. How would you describe your personality?

4. What is the role of the teacher in the classroom?

5. What qualities do you value in a teacher?

6. Tell me about your previous learning context – how were classes organized?

7. Did the teacher ask questions to the whole class? How did you feel? Did you answer?

8. Tell me about your previous experience of speaking in discussions/ class.

9. What kind of speaker are you generally (in your L1)?

10. To what extent do you think speaking in tutorials/ seminars at university is important? Why?

11. Let's talk about the pre-sessional course tutorial classes. What do you think about the teacher calling out names (nominating students) when the teacher asks a question in open class?

12.When the teacher asks an open class question in class, do you usually answer? What is the reason?

13. If the teacher asks an open class question and nominates you, how would you feel?

14. Do you think if it was a face-to-face class, you would be more willing to answer? (reverse question for a face-to-face student)

15. What is your attitude to online learning? Have you been an online student /studied online before?

Reviews

Book Review of: de Medeiros, A. and Kelly, D. eds. 2021. *Language Debates. Theory and Reality in Language Learning, Teaching and Research*. London: John Murray Learning/Hodder & Stoughton.

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I was interested to read this volume partly because I wanted to learn more about current debates in the field of language education but also because reviews are a new genre for me and one which is generally considered minor in academia and for which publishers often offer scant guidance. Nevertheless, as Ding (2022) and Hartley (2006) have noted, there *are* conventions to the book review genre though little attention has been paid to how academics read and write book reviews. This is potentially surprising given that as Hartley (2006) shows in his survey including 156 academics across arts and humanities, social sciences and the sciences 'most respondents reported reading between one and five book reviews a month and writing between one and two a year' (p.1194). As well as its relatively minor status, the book review genre is potentially fraught with ethical difficulties as Ding (2022) highlights. Such ethical and political concerns might play out in the form of the internal disciplinary power struggles of academia; book reviews can provide a platform for robust critique, which can verge on the scathing, or at the other end of the spectrum become little more than celebratory endorsements.

With these considerations in mind, as well as considering the virtues of this volume and some evaluative critique, I also seek to base the review on my own rationale for reading it, which was primarily to find nourishment for ideas with which I am currently engaged; namely *gender* in language education (a personal long-standing academic interest); the role of *linguistics in modern language teaching*, language *activism* and *multilingualism*. The four latter themes comprise the first four 'Debates' in the volume and they were one of the reasons I was keen to read the book. Admittedly, I was less enthused by the final theme of *digital mediations*, perhaps as a result of the enforced digital mediations of the Covid19 pandemic on professional, pedagogic and academic practices but, to my surprise, I also found some thought-provoking and inspiring work captured within the final debate. As well as my own current concerns, I have tried to consider what might be immediately relevant to language practitioners and educators and overall this volume lends itself

well to those who want to dip into particular areas or debates and find out more about the projects connected to the main themes.

As indicated above, the volume is divided into five sections around the five debates and each section comprises between two and four short chapters including an initial theoretical consideration followed by related projects. All sections conclude with an interview based on the debate topic. The volume has the feel of capturing a live debate since it is not theoretically dense and many of the projects described are presented as summaries rather than full accounts or academic discussions. This is perhaps in keeping with the invitation to participate in the introduction, where the editors write: 'the themes in this first volume of the Language Acts and Worldmaking book series were tested, in one way or another, in live audience debate and/or in participatory workshops within the wider research project… [and] These written texts are further conceived to allow the conversation to continue beyond the printed pages of this volume…' (Kelly and de Medeiros, 2022, p.xxi-xxii). The implication, then, is that where chapters or particular projects are of interest, readers and practitioners might seek to investigate the particular project in more detail in order to engage with the related concepts or to test out and adapt approaches for their own classrooms and practice. Nevertheless, the introduction itself cites aims for the volume which are wide-ranging and ambitious but which also, in my view, intimate the crisis at the heart of language education and the field in that so much of its scholarship and research seems to entail a reassertion of its own value both intellectually and socially. This unease or insecurity is perhaps common to many other subject areas, particularly in the arts and humanities, and in some respects the volume appears to want to address some of the challenges and opportunities for language education by means of the five thematic areas presented. Rather than summarise in detail each debate or project presented, below I highlight what I learned from reading each section and what I might take forward into my own thinking about languages education.

In the first debate section on *Gender*, I was not at all surprised to see statistics, graphs and figures on how gendered different school subjects are. The unequal uptake of Languages and STEM subjects such as Physics amongst male and female students is well-established in the education literature, and one flaw in the section, from my perspective, is that the balance seems to be tipped towards explaining the choice of particular subjects and especially why girls might choose to study Physics (or not). However, the section, authored by Peter Main and Sandra Takei, also offers some pertinent insights including, importantly, the overall observation that school cultures, whilst taking a zero-tolerance approach to racist and homophobic language and behaviours, often overlook or disregard

sexism and 'casual remarks were often dismissed as banter' (Main, p.21). It follows then that individual school cultures are found to reinforce gender stereotypes, even at primary level. This itself chimes with one of the other salient conclusions in the section which is that local school environments have a significant impact on the uptake of particular subjects. None of these points are perhaps especially revealing but some of the project findings are interesting and even counterintuitive in some cases. For example, I was surprised to learn that class or socioeconomic background did not have a significant effect on the choice of subjects and that outreach activities, while enjoyable for students, had a negligible impact on student choices. As well as this, the studies found that interventions aimed at 'persuading' girls to take up particular (STEM) subjects were largely ineffective. Conversely, what was also apparent from the studies conducted and described in this section was the positive effect of good teaching. This alongside the sense that the overall school environment and culture were key to subject uptake suggests that educators and institutions can claim more agency in affecting how cohorts choose and engage with different subjects. Ultimately more can be done locally from within school environments to support the dismantling of stereotypes and the related cultural, social and indeed economic capital associated with particular subject choices. The section appropriately ends with a Gender Action project and school accreditation with 'champion focus areas' which can be used in schools to raise awareness and embed more self-conscious approaches to addressing the barriers associated with particular gender stereotypes around subjects.

Debate 2 in the volume deals with the *incorporation of Linguistics* into approaches to Modern Language teaching with linguistics referring in particular (though not limited) to metalinguistic awareness and knowledge as well as grammar instruction. This was a strong and convincing debate section in the volume, particularly in terms of making the case for the intellectual robustness and value in language education as a field. I found myself concurring with most of the points put across by Pountain and Wenham, with Pountain using some good examples from French and Spanish on how nuanced linguistic analyses and discussions around them play an important role in highlighting features of linguistic diversity including 'diatopic, diastratic and diaphasic varieties' (Pountain, p.65) as well as pointing to aspects of language study which are both intrinsically fascinating and challenging but also have wider applicability. The authors explain that the loss of some elements of linguistics or metalinguistic knowledge in the languages curriculum has been the result, at least in the UK, of communicative approaches to language teaching and learning and the focus on authentic texts. Pountain (p.63) suggests that the Communicative Approach is most commonly used in UK schools today, and while communicative approaches do focus on grammatical form, he argues that

the centrality of communication and fluency have resulted in a downgrading of 'grammatical accuracy […] as an assessment objective'. These tendencies have meant that students are encouraged to learn stock responses and arguably have compounded instrumental views of language learning. Wenham (p.85) elaborates on this and highlights how a short introduction based on a four-week course on linguistics has been added to other language courses in attempt to bridge the gap between the L1 (and heritage languages) and L2s by focusing on broad questions such as 1) What is language? 2) How do languages relate to one another? 3) How do we write language down? And 4) How is learning a language like cracking a code? Overall the chapter and the projects described in this section show how a linguistic focus in language education can serve to articulate comparisons between languages and their varieties, problematise monolithic language ideologies often rooted in linguistic imperialism, and develop cross-curricular threads (e.g. looking at politeness in French and English or language change). Significantly, the inclusion of linguistics or linguistic approaches in language curricula and pedagogies have the potential for developing cognitive and critical skills by means of understanding and solving particular linguistic conundrums or conceptual problems which will be of value for any form of learning and problem-solving.

The third debate in the volume is on *Activism* and in general I found this section less easy to absorb in some senses than the others, notwithstanding my broad agreement with the principles underpinning notions of language activism and indeed familiarity and alignment with the work of some of the contributors in the section such as Claire Gorrara and Alison Phipps, both of whom have spent so much of their professional lives advocating for languages in different ways. Much of the 'debate' centres around defining, situating and analysing activist practices inductively. Gorrara (p.133) suggests that the meaning of activism depends 'on context and perspective' but definitions of language activism highlight its relationship to language policies and 'opposition or resistance to power'. The section includes some valuable examples of work which might easily be taken up in any context and classroom, including language biographies (Gorrara includes her own 'language life' p.135-136) as well as philosophical disruptions to the epistemologies of the north (Phipps, p.162-165). Phipps' decolonising perspective is elaborated in a subsequent chapter by Anderson and Macleroy who argue that teachers and policy makers need a change of mindset which should involve the 'cognitive, affective, multisensory and aesthetic' in ways of learning. In the broadest sense the section sees activism as underpinned by current understandings of the affordances and value of multilingualism and translanguaging approaches as new ways of understanding language practices and learning. In terms of educational practices the case is made for a move away from the functional nature of communicative approaches to language education towards learner-centred approaches

which include story-telling, project-based learning and transformative pedagogies that emphasise learner agency and disrupt the power dynamics between students and teachers.

Debate 4 relates to *Multilingualism* and starts with an explanation by Jean-Marc Dewaele (p.197) of why multilingualism matters. The topic has in fact been threaded through many of the other debates and perspectives in the volume, with a clear ideological position articulated in the preceding section through the subheading citing Roberts et al., 2018 'Monolingualism is the illiteracy of the 21st century'. Dewaele takes a less political position in his chapter, focusing instead on the relationship between multilingualism and emotions and in particular of enjoyment, rather than just anxiety, as important affective considerations in second language acquisition. As in Debate 1, the role of teachers and the learning environment as critical features of enjoyment are again highlighted. One of the chapters in the section by Beverly Costa also reflects on how an awareness of both the affordances and potential challenges of multilingual identities can play out in psychotherapy and her research leads to some valuable advice on how multilingualism might be considered in therapeutic environments. I found myself thinking that while not directly relevant to language classrooms much of the insight she gained through her research might fruitfully be applied in language classrooms and even research environments (amongst teams or with participants) where interpersonal relationships and even individual psychological, cognitive and political sensitivities might benefit from multilingual approaches and sensibilities. For example, Costa (p.215) suggests that training for therapeutic practitioners might include 'incorporating a linguistic history into the assessment process; discussing linguistic privilege and power with regard to the concept of "native speakers" and foreign accents; initiating a conversation about identity and language; evaluating when, how and if to invite a client to use their different languages… and the therapeutic value of speaking in one language over another', all questions and issues perfectly suited to language learning environments.

Finally, the fifth debate focuses on *Digital mediations* and Claire Taylor opens with an insightful chapter outlining the current tendency towards metacriticism in Modern Languages as it undergoes 'a process of reflection and attempts to re-define its boundaries and practices'. This understanding in some ways addresses the concern I raised above about the volume seeming to be symptomatic of a profound and persistent unease within the field. Interestingly, Taylor links modern languages and digital humanities in novel ways, focusing on how digital humanities might be critiqued (for example for an apparent and misleading ideological neutrality and its reliance on 'extractive capitalism') and considering ways in which digital humanities might be transformed by languages rather than always the other way round. The second and third chapters in the section give excellent examples of how

the digital, linguistic and cultural approaches have been blended and applied in specific classroom settings in ways which are cognitively challenging and engaged with the latest disciplinary thinking. Both chapters present motivating syllabus and pedagogic interventions which might well be worth emulating in other contexts. The chapter ends with an interview with Joe Dale who has been involved in technology-enhanced language learning activities and support for the practitioner community for many years and how his engagement in this area has shifted and developed since the effects on digital language learning accelerated in some ways by the covid19 pandemic.

This volume is worth reading if you are involved in language scholarship, research or pedagogies which might be informed or enriched by the five debates outlined, all of which are broad and current enough to be of relevance to most language educators in some form. The chapters are accessible and particular projects or ideas can be followed up through the references where fuller details can be obtained on particular projects or interventions. Similarly, the reference lists at the end of each chapter provide succinct and useful guidance for further reading. The volume captures a good range of collaborations between different sectors (including for example between secondary language teaching and higher education contexts) and these are primarily practitioner-focused and often include future steps and avenues for exploration. A significant critique of the volume overall might be that it is UK-centric and many, if not most, of the contributions have come from universities and schools based in London or the South East. Similarly, although practically-oriented, language educators and researchers might also appreciate deeper theoretical dispositions particularly around finer points such as the differentiating between translanguaging and multilingualism, how assessment and syllabus design might be transformed and so on, though this may emerge in subsequent volumes and related publications. A few years ago, I read another volume from a Debates in Subject Teaching series produced by Routledge called *Debates in Modern Languages Education* (2014) (eds Driscoll, Macaro and Swarbrick) and in less than ten years it is perhaps both heartening and unsettling to see how conversations around language education has evolved. The main difference appears to be a concern with the social and educational value of language teaching rather than the more inward focus on language acquisition and classroom practices which have typically informed the field in many contexts. One cannot help but conclude that this ideological positioning of languages is a response to wider political and ideological crises around the world which have manifested in different ways in different contexts but which might include Brexit, activist movements such as Black Lives Matter and MeToo, and the ongoing displacement of large groups of people across the world as a result of conflict and ongoing inequalities, suggesting that the focus of *Language Debates* is apt and fitting for our times.

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Book Review of 'English-Medium Instruction Practices in Higher Education International Perspectives'

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KEYWORDS: EMI, internationalisation, language, bilingual, multilingualism

INTRODUCING '*ENGLISH MEDIUM INSTRUCTION PRACTICES IN HIGHER EDUCATION: INTERNATIONAL PERSPECTIVES*'

Purpose and audience

English Medium Instruction Practices in Higher Education: International Perspectives is one of a number of books published by Bloomsbury on the topic of English Medium Instruction (EMI) and its implications. It explores EMI policy implementation and practices in a wide range of global contexts and from three different perspectives – the macro, meso and micro levels. The division of the book into these three sections means that EMI is examined from broadly the national, the institutional and the classroom viewpoint.

This volume will therefore be of interest to educational policy makers at both the national and institutional level, as well as other researchers and practitioners in the field of EMI. While all the authors are working in the field of applied linguistics, as is mentioned in the Introduction and is acknowledged as common in the field (Macaro, 2022), McKinley and Galloway express the hope that the book will spark more interdisciplinary research. My feeling is that it is sufficiently accessible to non-linguists for this to be the case and that it would also be of value to both linguistic and content practitioners as well. Its value, though, for practitioners would be mostly in setting the context for their endeavours, rather than providing a blueprint for their practice. From my personal experience, as a practitioner on the boundary between EAP and content specialists in a transnational

collaboration, I would suggest that the most likely content specialist readers would be the ones already involved in pedagogical research and/or collaboration with language specialists.

Aims and Structure

The Introduction to this volume sets out very clearly what the book is about and the gaps it hopes to fill. One key aim is to extend the global reach of the research, as EMI implementation is not uniform across the world. It certainly succeeds in this aim, adding ten places which had not previously been investigated, according to Macaro et al.'s State of the Art article in 2018 – namely Mexico, Brazil, Kuwait, Ethiopia, South Africa, Tunisia, Estonia, Poland, the South Caucasus and Nepal. This wide range exemplifies very well the huge diversity of situations in which EMI is used and deals with some areas, as McKinley and Galloway point out (p.6), which hitherto have been underexplored, such as Ethiopia and Nepal.

Another aim is to redress the perceived imbalance between the different levels of research into EMI, giving an equal examination of macro (national and regional), meso (institutional) and micro (classroom) implementation in different contexts. The division of the volume into three separate sections about each level of implementation, each containing seven chapters about different countries or regions, ensures that there is parallel amount of treatment of the different perspectives.

The editors do mention that there are 'some commonalities in policy implementation' within the chapters, but state that 'the chapters mostly provide an in-depth understanding' of different contexts 'showcasing how EMI practices vary widely' (p.4) and giving an insight into context-specific issues. To give a brief overview of the content of the volume, some chapters deal with the educational, social and sociocultural consequences of EMI in diverse contexts such as Bangladesh, Estonia and South Africa and raise questions about the appropriateness of its adoption and potential injustices in Ethiopia, Nepal, Colombia and Tunisia. Other chapters focus on the driving forces behind EMI and the way policy towards EMI has been approached in, for example, China, Poland, Vietnam and Austria. Other chapters explore the student and staff experience of EMI in contexts including Japan, Italy, Mexico and Turkey.

REVIEW OF *'ENGLISH MEDIUM INSTRUCTION PRACTICES IN HIGHER EDUCATION: INTERNATIONAL PERSPECTIVES'*

The introduction

The Introduction to the volume gives an excellent overview of all the chapters and the main themes they each cover, so I would recommend that this be read carefully, as otherwise the over-arching themes might be lost within the detail of the different contexts. I found it helpful, too, within different chapters, when other chapters in the book were referred to, such as the links in Chapter 18 about Kuwait to other similar contexts, such as Ethiopia (p.228).

Chapter commonalities and key themes

For the purposes of this review, rather than repeat the treatment of the chapters separately as the editors do so well in the introduction, I thought it would be useful to draw out the commonalities and review these chapters according to their treatment of certain key themes.

Driving forces behind EMI

Internationalisation in a general sense is mentioned in almost every chapter as a motive or reason for the introduction and spread of EMI. However, the nature of internationalisation as a driver for EMI varies. In some cases, such as China, described in Chapter 3, internationalisation is part of a government move to make universities more competitive in global research and to attract international students, as well as a means to retain home students. This desire to restrict the outflow of home students is seen in many other contexts, such as Ethiopia in Chapter 5.

Another driver towards EMI is the commodification of higher education, with the need for universities themselves to embrace EMI in order to compete in a global market. This concept permeates many of the chapters and is mentioned specifically in the case of Austria (Chapter 8), Tunisia (Chapter 21) and Nepal (Chapter 6). In some situations, however, the move towards EMI has been part of a drive towards more general educational reform, which seems to have been the case in Denmark (Chapter 4) and Vietnam (Chapter 14).

Although EMI is widely regarded as overwhelmingly a 'top-down' phenomenon in terms of national and institutional policy, this volume does show that there is support for it amongst lecturers and students. In Brazil (Chapter 2) individual lecturers are trying out the idea of the EMI, to give their students the benefit of an international education 'at home' and the studies on Japan (Chapter 17) and Azerbaijan (Chapter 15) suggest that there is a groundswell of opinion amongst students and in society that English is useful as a skill to offer in the global job market. This expectation that EMI will

improve the students' level of English is indeed common, particularly in Asian countries as Chin and Li (2021) discuss in their chapter on EMI models in Chinese-speaking contexts.

Tensions caused by the adoption of EMI

A key thread running through the chapters of this book is that the choice of language as the medium of instruction is not value-free. English may be adopted or resisted because of links with a colonial past (as discussed in Chapter 1 about Bangladesh) or countries may opt for a 'quasi-colonialism' in adopting English, as argued in Chapter 6 about Nepal. The decision can cause both social and political tensions. Hamid and Amin's study of EMI policy in Bangladesh (Chapter 1) explains that both Bangla and English exist in public and private universities, but in the former Bangla is dominant and in the latter it is English. Hamid and Amin make the point that EMI is not a 'neutral' policy, perpetuating social divisions amongst the student population.

Christa van der Walt's (Chapter 13) notion of languages taking up 'space' and therefore excluding others was an interesting explanation about why there is such conflict about the use of one language or the other. In South Africa, a key debate seems to be about whether English or Afrikaans should be the language of instruction. This in itself is problematic because it ignores the avowed aim of the Language Policy Framework to foster African languages in the education system. But then van der Walt argues that even if African languages were included, it would be difficult to know which ones were appropriate in which area, given a plurilingual society and student mobility to different geographical areas.

The growth of EMI has fuelled the polarisation of languages in Estonia (Chapter 10) with tensions between the 'internationalist and culturalist' positions (Hultgren et al. 2014) amid concerns about effect on Estonian as a language if English is adopted exclusively. This same polarisation and debate are seen in Holland (Chapter 20) and Bangladesh (Chapter 1).

My favourite chapter was Chapter 21 about Tunisia because it so succinctly highlighted both the ideological tensions and the practical pedagogical issues involved, which I will discuss below. Basically globalisation has brought international competition to education and the 'linguistic tax' is the use of English, with all its 'colonial history, ideological hegemony, economic power, political authority and social dominance' (Badwan, p.265) The students have to study in Arabic at primary school, French at secondary level and then French and possibly English at tertiary level. Not

surprisingly, the EMI lecturers interviewed for this study were concerned about the use of English in terms of its suitability, the students' readiness for the challenge and the effect on national identity.

Potential pedagogical problems caused by EMI

It is well-documented in the literature that the adoption of EMI has pedagogical implications. Joyce Shao Chin and Naihsin Li (2021) identify several key issues related to the use of EMI, namely the students' proficiency in English, or lack of it, and the effect this has on their learning, the staff's ability to teach in English and the use of other languages in the classroom. This volume deals with all these issues to some extent and the studies highlight solutions which have been employed in the various contexts.

A lack of proficiency in English on the part of the students means that there is a danger they would not be able to study the required content effectively and their lack of language would compromise their subject learning and their ability to express their understanding of the content. Lei and Hu (2014) make the point that a threshold level of English proficiency is needed to start an EMI course, but even then, as Evans and Morrison (2011), mention this does not guarantee an ability to communicate discipline specific content.

One solution to this issue is to support the students and improve their language proficiency. Although this volume does not discuss EAP preparatory programmes in great detail, Chapter 7 describes preparatory programmes in Turkey and Chapter 19 focuses on pre-sessional language courses for students in Mexico. Unlike other pre-sessional courses, there seems not to be an entry requirement for these, and it seems that in the Mexico case study intermediate level students benefited most. Otherwise, it seems that in many places, students are tested but have to reach the required level themselves, not necessarily through the school system, thereby perpetuating social divisions (Badwan, Chapter 21).

However, despite student lack of language proficiency seemingly being an obvious barrier to success, this does not appear to be an issue from the students' perspective. In the chapters about Japan (17) and Kuwait (18) students do seem to struggle with their EMI courses, yet they do not necessarily equate this with a lack of academic success. As Thompson, Curle, and Aizawa (Chapter 17) suggest, maybe the criteria for 'student success' need to be re-examined. In Turkey (Chapter 7), student performance in the TMI classes is a good predictor of success in the EMI ones, suggesting that perhaps other factors than just language play a significant role. This is certainly my experience.

Lack of English proficiency/pedagogical ability on the part of staff

Many studies identify the English proficiency of staff and their ability to teach in English as potential problems (Macaro, 2022; Lily I-Wenn Su, Hintat Cheung, Jessica Wu, 2021). A low level of English can mean staff stick closely to their lecture script (Wilkinson, 2005) and struggle to explain concepts clearly. One solution to this issue is staff training and support. This is mentioned in several of the chapters, with a plea for support not to be imposed from above, but for the opinions of the stakeholders to be considered. This is the focus of Chapter 11 about EMI training in Italy, which was based on an in-depth analysis of lecturers' perceived needs.

Use of languages other than English

A third key solution to the issues EMI may cause for both staff and students is the use of other languages, both in the institution or programme or in the classroom itself. In many national and institutional contexts, EMI is not presented as the only route for either the staff or the students. The studies by Tong et al. (2020) and Rose et al. (2020) mentioned in Chapter 2 about China both point to the fact that in many contexts, in practice English was not used as exclusively as the institutional policy suggested, with some studies reporting that almost all lecturers felt that some use of Chinese was necessary, depending on the language proficiency of the students. Sahan explains in Chapter 7 how Turkey has adopted a partial model of EMI, in that students can opt to do some of their courses in English (30%) and some in Turkish, although it was interesting that the policy stipulates only one language at a time.

The last potential solution to problems that EMI can cause which is discussed in this book is the promotion of the use of other languages in addition to English within the classroom itself. This concept permeates most of the chapters in the book. So, one solution to the split between public and private universities and the elitism of EMI in Bangladesh, would be the use of both Bangla and English, with staff and students moving between 'linguistic territories'. Chapter 16 examines translanguaging in the ESP classroom in Hong Kong and gives the reader the most practical example of how this could work. 'Code-switching' seems to happen in many EMI situations – why not allow and even encourage it, as students in Kuwait would like?

One answer to this question is the presence of international students who may not be able to 'code switch' and as Chapter 9 on Colombia and Chapter 13 on South Africa point out it might be difficult in multilingual and linguistically diverse contexts to decide which other languages to allow or promote. Another issue is that of international staff or flying faculty from partner institutions who

might not be able to operate bilingually. One solution to this problem that is being considered in Estonia (Chapter 10) is requiring foreign staff to learn the language of the country, but this is likely to cause problems of its own.

OVERALL COMMENTS

In Chapter 5, Anna Hultgren clarifies the 'epistemological standpoint' from which she is writing (p.49) and urges that others should do the same, given the multifaceted nature of EMI research. I think that readers of this book should be aware of their own standpoint and be prepared to go beyond it, if they wish to get the most out of this book. From my position as a practitioner on the boundary between EAP and content specialists who is responsible for implementing top-down policies from the two partner institutions in a transnational collaboration, the temptation would be to read mainly about contexts which appear relevant to my own. Had I not been writing this review, I may not have read every chapter. That, however, would obviously have been my loss as I found interesting elements where I would not have expected to find them from looking at the content page.

In general, I thought this book was a valuable addition to the field of EMI research, with a broad global reach and exploring areas of the world which have been under-researched. A strong point was the discussion of the use of other languages in addition to English, but I felt that many chapters advocated the use of other languages assuming that all the students and the lecturers shared the same language, so could easily 'code-switch', but this is not necessarily the case in many contexts. One context which was not explored was the transnational partnership, which is an area where EMI is widely used. With 'international' as well as 'host country' staff typically employed, this setting would not necessarily easily lend itself to the use of different languages.

I found Section 3, the micro-level, slightly disappointing as there was not much detail, except in Chapter 16 about Hong Kong, about actual classroom practice and interaction. The main focus was on the viewpoints of staff and students, which is of course valuable in itself, but there is a need to delve further into how translanguaging and code-switching, for example, could work in practice in both language and content classrooms.

One avowed aim of this book is to stimulate further EMI research (p.9) using different methods and from an interdisciplinary perspective. I definitely think that it will encourage researchers to think of their context at macro, meso and micro levels. Ideally it would also help those of us at the bottom to

influence the decision makers a little by being able to point to research from different angles, so that EMI does not remain so top down. However, there is still a need for a more interdisciplinary perspective in the field of EMI research. This is acknowledged by the editors and many of the chapters call for more studies conducted with and by people working in the field.

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