Research Article

Differential exposure to the English Language? Assessing English language use among chemistry and sociology academics in European universities.

G. Baldacchino[*1], **S. Karimi-Aghdam**[2], **L. Abbamonte**[3], **N. Costa**[4], **A. Dulska**[5], **J. Durgadoo**[6], **J. Granić**[7], **G. Le Gall**[8], **P. López-Zurita**[9], **M. Wawrzyniak-Śliwska**[5]

[1]*Department of Sociology, University of Malta, Malta*

[2]*Faculty of Education and Arts, Nord University, Levanger, Norway*

[3]*Department of Law, Parthenope University Naples, Italy*

[4]*Department of Arts and Humanities, University of Algarve, Portugal*

[5]*Foreign Languages Centre, University of Gdańsk, Poland*

[6]*International Center, Kiel University, Kiel, Germany*

[7]*Department of Croatian Language and Literature, University of Split, Croatia*

[8]*Pôle Langues - Language Center, University of Western Brittany, Brest, France*

[9]*Department of French and English Philology, University of Cádiz, Spain*

[10]*Department of Glottodidactics and Natural Language Processing, University of Gdańsk, Poland*

Abstract. In universities where the language of instruction is not (mainly) English (EN), academic members of staff from different disciplines are exposed to EN to varying extents and may thus be expected to demonstrate different degrees of EN competence. We hypothesise that, generally speaking, university professors and lecturers of national literature, national language, linguistics and local social studies may be the least obliged to use EN, while those in, or dealing with, the hard sciences have a greater need and obligation to engage with technical EN. In December 2023, a survey based on self-reporting was organised amongst the academic, administrative and student community of the nine universities that now constitute the 'European University' Alliance: the 'European University of the Seas' (SEA-EU). Amongst various other themes, this survey explored the self-declared English Language competences of lecturers and professors of sociology ($N = 23$) as well as lecturers and professors of chemistry ($N = 88$) in eight out of these universities. The results, while only indicative, support the claim that academics in the field of sociology, working in largely non-EN teaching universities, may not need a strong level of EN competence as much as chemistry lecturers and professors. Thus, one can argue that chemistry academics are generally under greater pressure to improve their level of English in all areas of language reception and production (reading, writing, listening, speaking alone or in a conversation, delivering formal lectures, preparing notes, slides and examinations, etc.) than sociology academics. These results provide valuable nuance to the use of the English language in the European academic community.

Keywords: English language competence, European universities, sociology, chemistry, SEA-EU Alliance

1 Introduction

SEA-EU, or the European University of the Seas, is a 'European University' Alliance set up and launched with the first wave of such bodies, in January 2020. Initially with six members, it now has nine partner universities, namely: the University of Cadiz (UCA), Spain; University of Western Brittany (UBO), Brest, France; Kiel University (CAU), Germany; University of Gdańsk (UG), Poland; University of Split (UNIST), Croatia; University of Malta (UM), Msida, Malta; Parthenope University of Naples (UPN), Italy; University of Algarve (UAlg), Portugal and Nord University (Nord), Norway. (www.sea-eu.org). One of the tasks that fall within the purview of SEA-EU deals with promoting multilingualism, building English language competence, and setting up a common SEA-EU language

Correspondence to: G. Baldacchino (godfrey.baldacchino@um.edu.mt)

policy.

"Multilingualism as a social phenomenon is not a specialty of this age, since many pre-modern societies were multicultural and multilingual" (Granić, 2012, p. 85), it is "an everyday reality for the majority of the world's inhabitants" (Phillipson, 2003, p. 3), and its rise and ramifications are not difficult to understand (Edwards, 2012). Being "frequently prised as one of our age's major progressive paradigm shifts in curriculum, research, and civil society" (Gramling, 2021, pp. 11, 65), multilingualism is a practice under pressure. Considering language as "a bridge between persons and a vehicle for members of a community to feel close to each other" (Metsola, 2023, p. 126), multilingualism requires ongoing attention. Language diversity in the EU, particularly in public communication, and including academic discourse, "has remained an unfulfilled ideal, inasmuch as 'we have to shift to English to be heard'" (Granić, 2017, p.104). The SEA-EU Alliance is called upon to establish a common language policy by promoting English as a global language and to implement multilingualism in its own practice (cf. Blackwood & Dunlevy, 2021; Horner & Dailey-O'Cain, 2020; Mary et al., 2021).

One of the core goals of this task is to ensure an effective use of English as a means of communication, scholarship, teaching and learning within the SEA-EU Alliance and beyond. After all, the globalisation and consequent internationalisation of higher education have "taken the form, in non-English speaking countries, of an increasing role for the English language" (Zanola, 2024). In much of Europe and beyond, competence in English is becoming a prerequisite for access to higher education and employment.

2 Objectives: A comparison between two disciplines

In most cases, where such studies are carried out, the analysis proceeds with an inquiry based on a comparative analysis of data across universities and countries. In this paper, we focus however on an inter-disciplinary comparison. Indeed, the survey instrument intentionally targeted two mutually exclusive sets of academics: those who report being chemistry lecturers / professors ($N = 88$) and those who self-report as sociology lecturers/professors ($N = 23$), with a comparative exercise in mind.

The adoption of English as a Medium of Instruction (EMI) has been sweeping across the higher education landscape worldwide for a while (e.g. Coleman, 2006; Crystal, 2004). Under the guise of internationalisation, formal teaching and research are often becoming monolingual, gravitating towards the use of English as a single lingua franca, or lingua academica (Grin et al., 2018).

Phillipson (2007, p. 78) however argues that lingua franca is a slippery concept, suggesting other signifiers such as: lingua economica (the globalisation imperative); lingua cultura (needing exploration in foreign language teaching); lingua academica (for international collaboration in higher education); lingua emotiva (where grassroots identification with English ties in with top-down promotion of the language); lingua tyrannosaura (the language that gobbles others); and lingua belica (the language of war and military contexts).

With the ongoing globalisation of higher education and the internationalisation drive of most universities, academics find themselves in environments where engagement with the English language (EN) is almost inevitable: for keeping in touch with their research field, for publishing their work, for attending and presenting at international conferences, for lecturing and assessing student work, for successfully applying to collaborative research projects, and for maximising citations and deepening impact (Di Bitetti & Ferreras, 2017; Liang et al., 2013). It is all the more so if such academics find themselves teaching study units that are specifically earmarked as EN-language units, in order to appeal to and attract international students as well as Erasmus mobility students from other universities. Nevertheless, this level of engagement is not necessarily the same in all disciplines. In this paper, we hypothesise that certain academic disciplines are more or less obliged to be fully competent in the English language than others.

The basis for proposing this hypothesis is summed up here. In language, linguistics and some social science, university academics may have secured their academic qualifications from home universities; they are obliged and expected to teach, research and critique the local corpus, which would be primarily written in the local language (or dialect); they may be obliged and expected to comment and deliver presentations on such material again in the local language; the obligation to engage with non-locals on such material is less inevitable than in the case of academics in the hard sciences – physics, chemistry, mathematics, et cetera. Indeed, to achieve credibility, visibility and inclusion in the international hard science community, the use of EN has become inevitable.

For this exercise, we will exclude the academic representatives of the University of Malta (UM). The language of instruction of this university is English; so, naturally, all academic members from every department are expected to have a very good or excellent command of this language, and in the full repertoire of associated skills. This is indeed the case, as self-reported by respondents: for example, in the case of EN reading skills, out of eight UM academics, seven reported an excellent command of EN; and one a very good command. The situation re-

peats itself with respect to the other three sets of EN-related skills. The situation is quite different where the other eight universities are involved. The local, vernacular language is the default language of instruction and assessment in these institutions: Croatian, French, German, Italian, Norwegian, Polish, Portuguese and Spanish respectively. However, there are demands being (recently and increasingly) placed on these academics to also teach in English, as shall be discussed below.

Five different sets of questions were asked, dealing with different types of EN competence: reading (work related material, and more broadly), listening, writing, speaking alone (as in a presentation) and speaking with others (as in a dialogue). For each set of questions, respondents were asked about their self-perceived level of competence and whether they were interested in taking initiatives to improve their competence. The responses are reviewed in turn below.

3 Methodology

To undertake this task more effectively, and better align initiatives with needs, a 'needs assessment' (Long, 2010; Piquer-Píriz & Castellano-Risco, 2021) exercise of the language situation within each partner university was undertaken by means of an on-line survey in December 2023. This survey targeted five representative sectors of the campus community: namely, academics who teach either Chemistry or Sociology, Library Staff, the Staff of the Central Administration (Office of the Rector or President; Offices of the Vice-Rectors), and the Student Union or Central Student Association(s). The objective of this survey was to determine how to best enhance and deepen English language competence in our campuses. The survey was circulated both in English as well as in the respective national languages of the SEA-EU partner universities. Completed survey responses were accepted until December 15, 2023 (just before the Christmas recess). A total of 654 valid submissions were received within that time frame.

Methodological caveats There are some methodological issues that need to be discussed before a discussion is proposed. Survey questionnaires were available in the nine languages of the Alliance – Croatian, French, German, Italian, Maltese, Norwegian, Polish, Portuguese, Spanish – plus in English, and there may have been slight differences in meaning between different questionnaire versions. Respondents who chose to answer using the EN-version of the survey instrument, and who may not have a full level of competence in the language, may have somewhat misinterpreted the questions, and so possibly provided unintended answers. And, of course, all answers are based on self-reporting: they are subjective judgement calls on

a range of skills related to English-language competence. Such answers would need to be compared to the results of objective language competence tests in order to determine their veracity, validity, and accuracy. Moreover, no chemistry or sociology professors from Nord answered the survey, or self-identified as such; there were also no chemistry academics from CAU; and no sociology academics from UAlg. This somewhat distorts the compatibility of the two datasets. Finally, the number of respondents who self-identify as chemistry lecturers/ professors ($N = 88$; N less UM=84) is much larger than those who identify themselves as sociology lecturers/ professors ($N = 23$; N less UM=17). This creates some difficulties in drawing conclusions from small numbers, which is why the analysis here is mainly pursued by looking at aggregate figures.

However, with all these caveats, we consider the methodology to be, in principle, sound enough to permit indicative comparisons between chemistry and sociology professors at the universities that are members of the SEA-EU Alliance, hailing from eight different European countries. Further research would be able to confirm or refute whether these initial observations are tenable.

4 Results

4.1 Assessment and Interest in Improvement

4.1.1 English Language Reading Skills

Chemistry academics ($N = 84$): The EN reading skills of most chemistry lecturers or professors in UAlg and UNIST are self-reported as excellent; and most of those at UG as very good. In UPN, reading skills are reported as both very good and good; and in UBO and UCA, EN reading skills are self-noted as being good. 23 respondents (27%) reported their EN reading skills as excellent. Just four respondents indicated basic EN reading skills (the lowest category available for selection). When asked if they wished to improve their EN reading skills, most chemistry academics responding from UNIST, UCA, UG and UPN (but not UBO) declared that they would. There were no submissions from CAU and Nord. (See Figures 1 and 3).

Sociology academics (N=17): The EN reading skills of the majority in CAU, UCA and UNIST are self-reported as excellent. The single respondent from UG self-reports as very good, the majority in UPN are self-noted as good and the majority in UBO are self-indicated as basic. Six respondents (35%) reported their EN reading skills as excellent. Despite much lower numbers of respondents compared to the chemistry sub-sample, an equal number of respondents – four – indicated having just basic EN reading skills. When asked if they wished to improve their EN reading skills, most sociology academics responding from UBO, UCA and UPN declared that they would. There

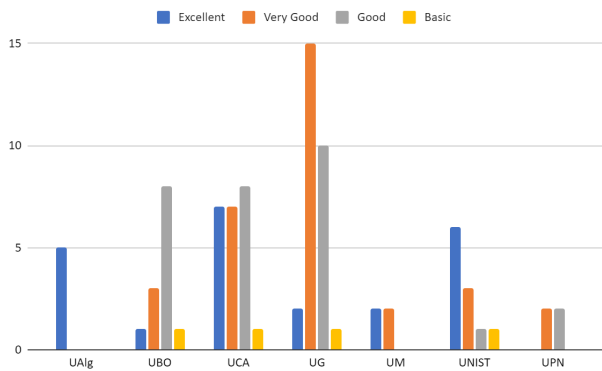were no submissions from Nord and UAlg. (See Figures 2 and 4).

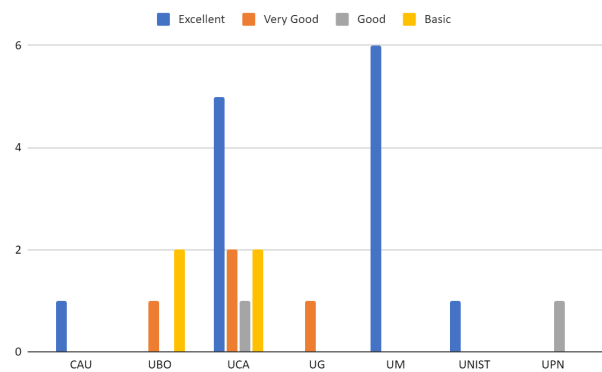**Figure 1:** EN reading skills assessment – Chemistry Academics

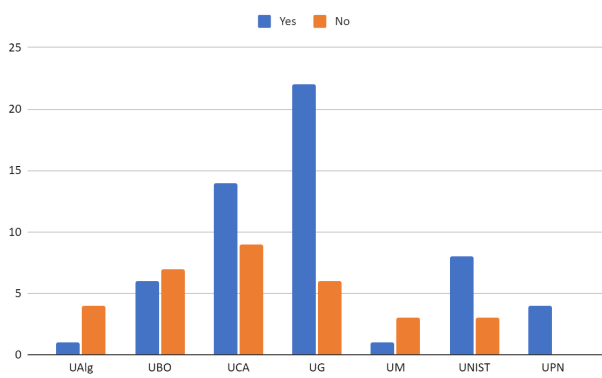**Figure 2:** EN reading skills assessment – Sociology Academics

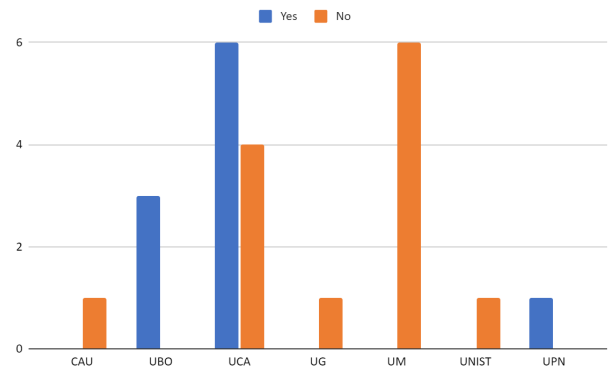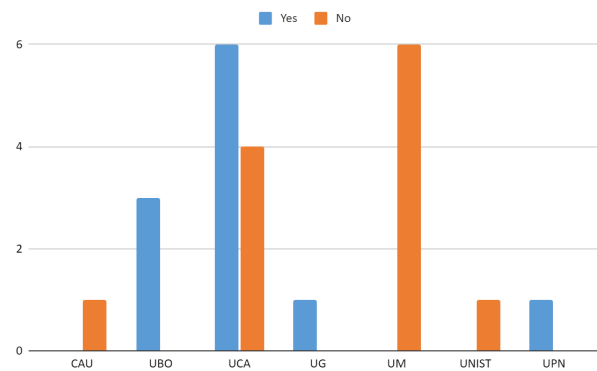**Figure 3:** EN reading skills improvement – Chemistry Academics

Figure 4: EN reading skills improvement – Sociology Academics

4.1.2　English Language Listening Skills

Chemistry academics ($N = 84$): This time, only the five chemistry respondents at UAlg *all* claim to have excellent English listening skills. In all, twelve respondents (14%) claim excellent skills (UM excluded). Most respondents from UNIST claim to have very good English listening skills; and the majority from UG reported good skills. Most respondents from UCA, UPN and UBO self-report basic EN listening skills. No single respondent from UCA or UPN self-identified as having excellent EN listening skills. 62 of the respondents (74%) indicate a willingness to improve in this skill. There were no submissions from CAU (See Figures 5 and 7).

Sociology academics ($N = 17$): The two sociology respondents from CAU and UNIST reported excellent listening skills; while the single UPN respondent self-reported good skills. Excluding UM, four respondents (24%) declared excellent English language listening skills. Most respondents from UCA reported basic level skills. Two respondents (both from UCA) self-rated their EN listening skills as very poor. Eleven respondents (65%) self-reported a readiness to improve these range of skills. There were no submissions from UAlg (See Figures 6 and 8).
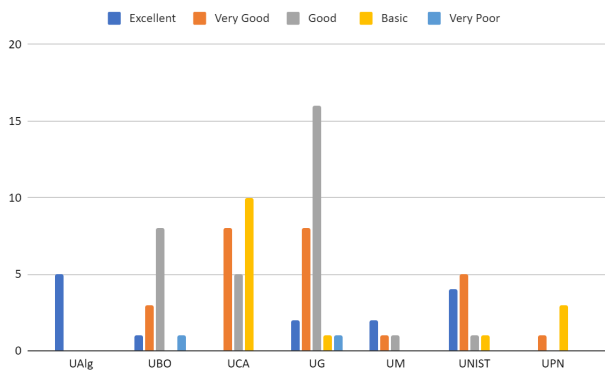
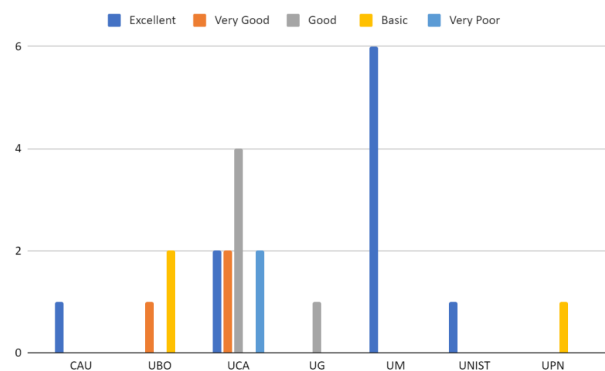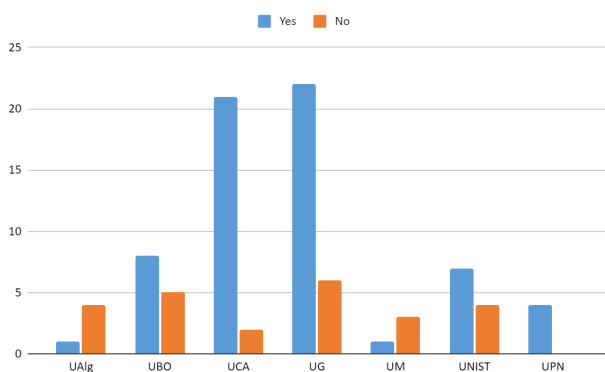**Figure 5:** EN listening skills assessment – Chemistry Academics

Figure 6: EN listening skills assessment – Sociology Academics

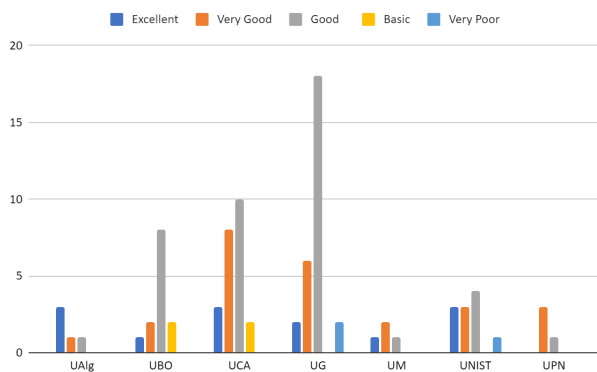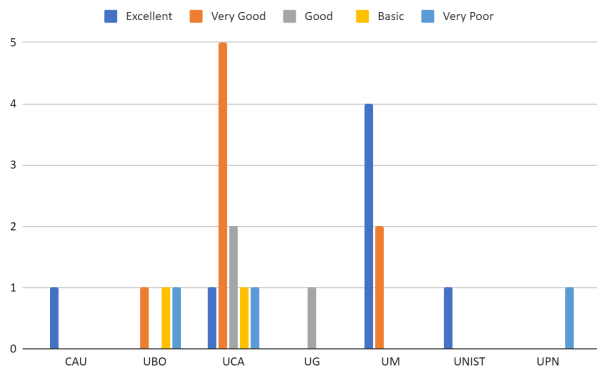**Figure 7:** EN listening skills improvement – Chemistry Academics

Figure 8: EN listening skills improvement – Sociology Academics

4.1.3 English Language Writing Skills

Chemistry academics ($N = 84$): The majority in UAlg self-reported their EN writing skills as excellent and the majority at UPN self-reported as very good. Most respondents from UBO, UCA, UG and UNIST claimed their writing skills to be good. Three respondents self-reported as having very poor EN writing skills. (Always excluding UM), only UAlg has a slight majority of respondents who are not interested in improving their EN writing skills. There were no submissions from CAU and Nord (See Figures 9 and 11).

Sociology academics ($N = 17$): Most respondents from CAU and UNIST self-noted their writing skills as excellent; at UCA, writing skills are largely self-reported as very good; in UG writing skills are largely self-reported as good; and in UPN writing skills are largely self-reported as very poor. UBO claimed their writing skills as equally very good, basic, and very poor. Three sociology respondents self-reported as having very poor EN writing skills. Despite this result, five of the respondents do not feel the need to improve their EN writing skills. There were no submissions from UAlg (See Figures 10 and 12).

Figure 9: EN writing skills assessment – Chemistry Academics

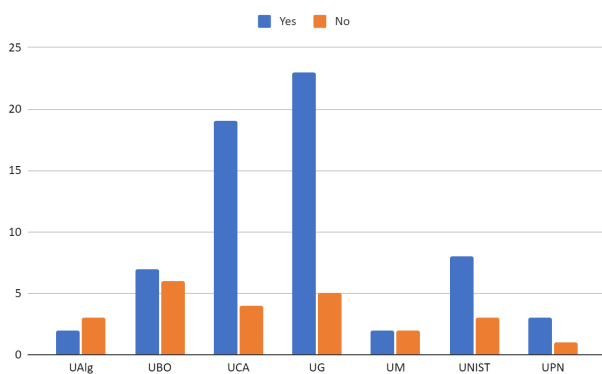**Figure 10:** EN writing skills assessment – Sociology Academics

Figure 11: EN writing skills improvement – Chemistry Academics
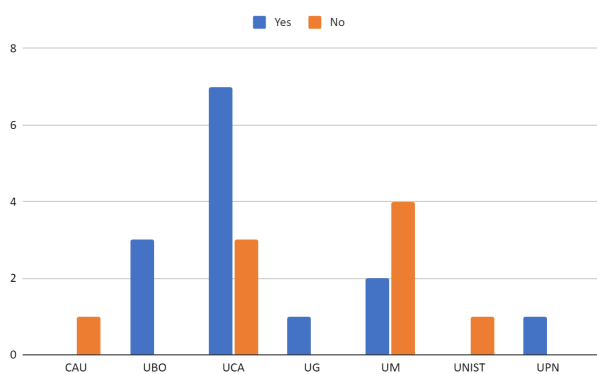

Figure 12: EN writing skills improvement – Sociology Academics

4.1.4 English Language Speaking Skills

A) while speaking alone, such as when delivering a speech or presentation *Chemistry academics* ($N =$ 84): Only a majority of chemistry respondents from UAlg self-reported their speaking skills as excellent. The majority in UNIST self-claimed to have very good skills. The majority from UBO, UCA and UG reported their speaking skills as good; and in UPN, speaking skills are self-reported as basic. Excluding UM, just seven respondents self-indicated excellent EN speaking skills, while three admit very poor skills. Excluding UM, all universities except UAlg have a majority of respondents who are keen – some very keen – to improve their EN speaking skills, although the level of keenness at UBO is quite lukewarm. There were no submissions from CAU (Figures 13 and 15).

Sociology academics ($N = 17$): Respondents from CAU and UNIST self-reported their speaking skills as excellent. Most sociology respondents from UG self-reported their speaking skills as very good; the majority in UCA self-reported as good; and the majority from UBO and UPN reported their speaking skills as basic. Excluding UM, just seven respondents self-indicated excellent EN speaking skills; and two admit having very poor skills. Sociology respondents from UBO, UCA, UG and UPN favour improving their EN speaking skills. There were no submissions from UAlg (Figures 14 and 16).
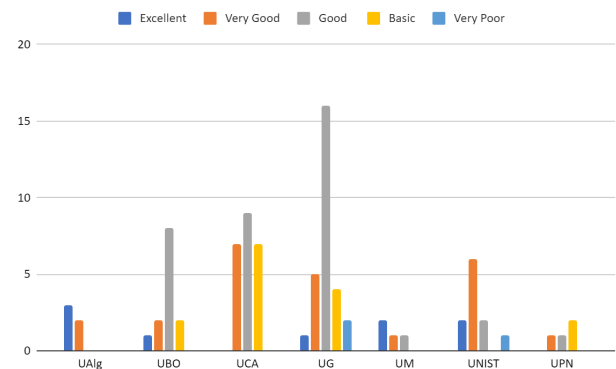

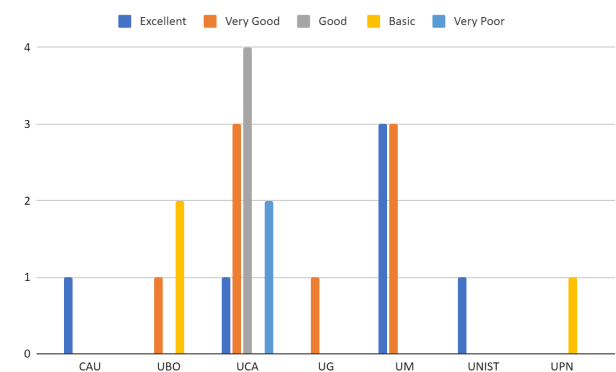**Figure 13:** EN speaking (presentation) skills assessment – Chemistry Academics

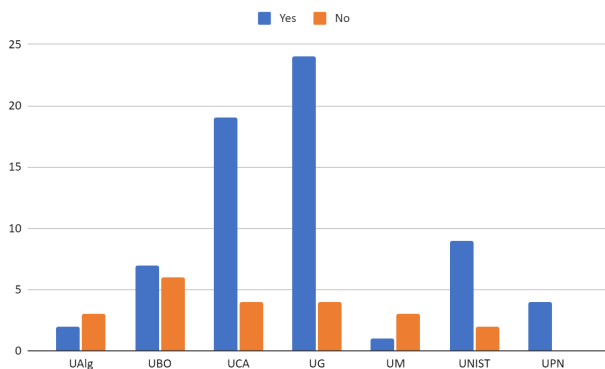**Figure 14:** EN speaking (presentation) skills assessment – Sociology Academics

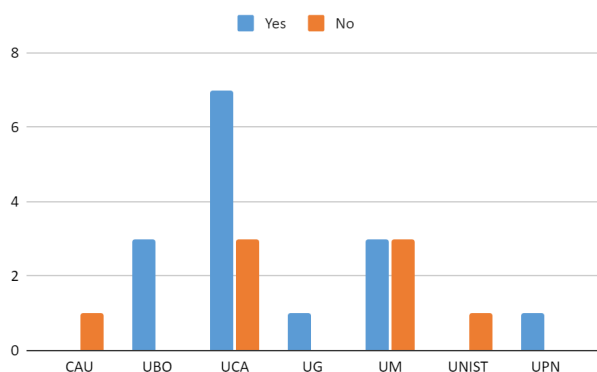**Figure 15:** EN speaking (presentation) skills improvement – Chemistry Academics

Figure 16: EN speaking (presentation) skills improvement – Sociology Academics

B) while speaking with others, in a conversation or dialogue The deterioration in the general competence levels in the English language reported by the respondents continues; it hits the lowest scores for this fifth and final category of EN skills.

Chemistry academics ($N = 84$): Only the majority of chemistry academics at UAlg self-reported their EN speaking skills as excellent (and, as usual, excluding UM). Most respondents from UNIST self-noted their speaking skills as very good and the majority in UBO and UG self-reported as good. The majority in UCA and UPN self-reported their EN speaking skills as basic. Excluding UM, only nine respondents self-declared excellent skills in this area. All universities except UAlg declared that they wish to improve their speaking skills. There were no submissions from CAU (See Figures 17 and 19).

Sociology academics ($N = 17$): The majority of sociology respondents from CAU and UNIST self-reported excellent speaking skills; while the majority from UCA and UG self-reported very good skills. Sociology academics from UBO self-reported a range of very good, basic and

very poor skills, while the UPN respondent self-reported basic skill level. Just three academics declare excellent skills here. Yet, most respondents from CAU, UG and UNIST do not want to improve their competence in this area. There were no submissions from UAlg (See Figures 18 and 20).
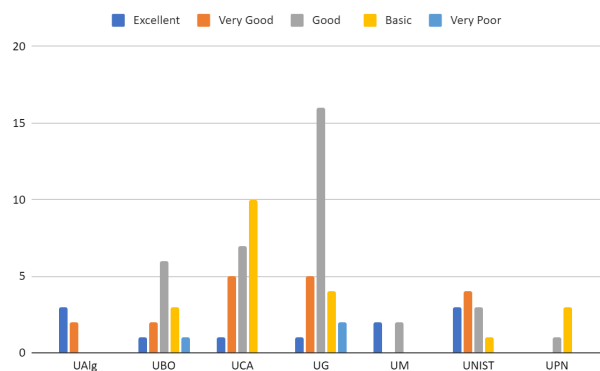

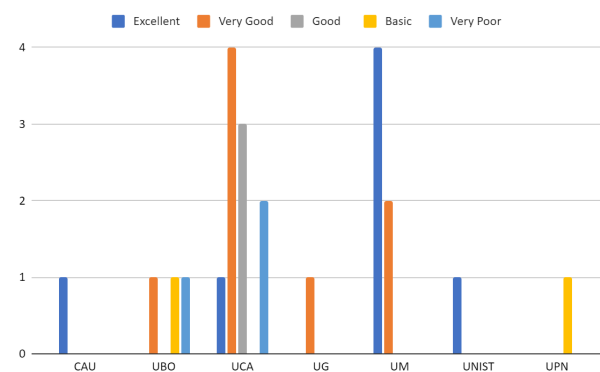**Figure 17:** EN speaking (dialogue) skills assessment – Chemistry Academics

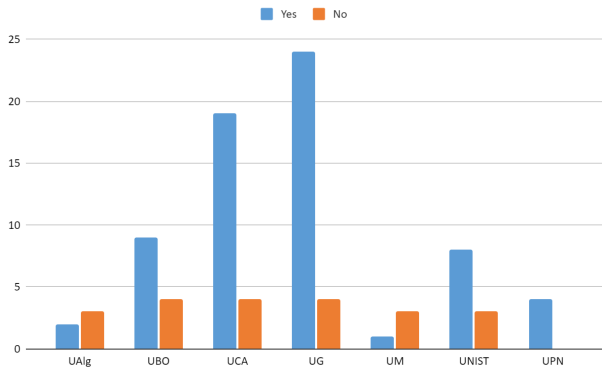**Figure 18:** EN speaking (dialogue) skills assessment – Sociology Academics

Figure 19: EN speaking (dialogue) skills improvement − Chemistry Academics
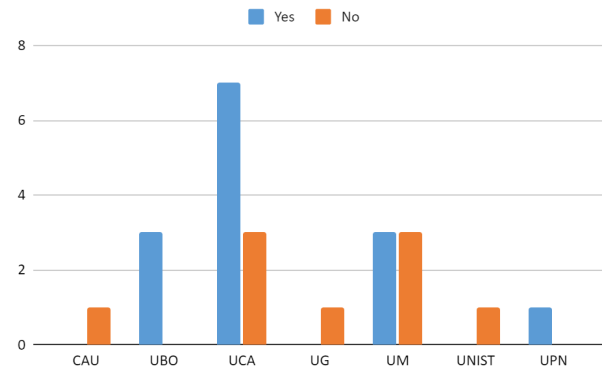

Figure 21: Sending emails in EN − Chemistry Academics

Figure 20: EN speaking (dialogue) skills improvement − Sociology Academics

Figure 22: Sending emails in EN − Sociology Academics

4.2 Tasks performed

4.2.1 Sending Emails In English (Frequency In Last Month)

The volume of email messages sent or received in the English language is another indicator of the internationalisation of the particular discipline. *Chemistry academics* ($N = 84$): 36 (43%) of the chemistry academics self-reported never having sent an email message in English in the previous month. This is the majoritarian response across the board (with UM as the single exception). Excluding UM, eight chemistry academics self-report sending email messages in EN over 75% of the time. There were no submissions from CAU (See Figure 21).

Sociology academics ($N = 17$): 4 (23%) of the sociology academics self-reported never having sent an email message in English in the previous month. Excluding UM, no sociology academics self-report sending email messages in EN over 75% of the time. There were no submissions from UAlg (See Figure 22).
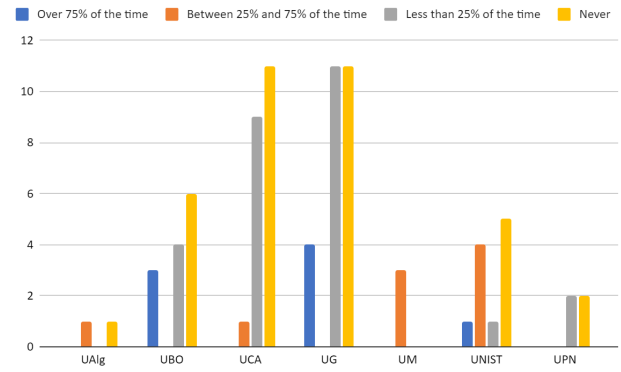
4.2.2 Receiving Emails In English (Frequency In Last Month)

Chemistry academics ($N = 84$): only a majority of chemistry respondents from UAlg self-reported receiving emails in EN over 75% of the time during the previous month. Most respondents from UBO, UCA, UG and UPN self-reported emails in EN between 25% and 75% of the time; and the majority from UNIST reported emails in EN less than 25% of the time. Just four chemistry academics self-declared not having received a single email message in EN during the previous month; while nine declared that they received email messages in EN all the time. There were no submissions from CAU (See Figure 23).

Sociology academics ($N = 17$): UPN self-reported that they did not receive emails in EN during the previous month. Three respondents self-declared receiving no single email message in EN during the previous month. Excluding UM, only one respondent (from UCA) self-declared receiving emails in EN over 75% of the time. No one declared receiving email messages in EN all the time There were no submissions from UAlg (See Figure 24).

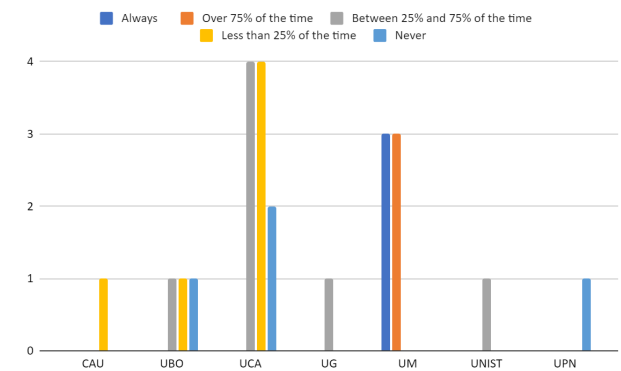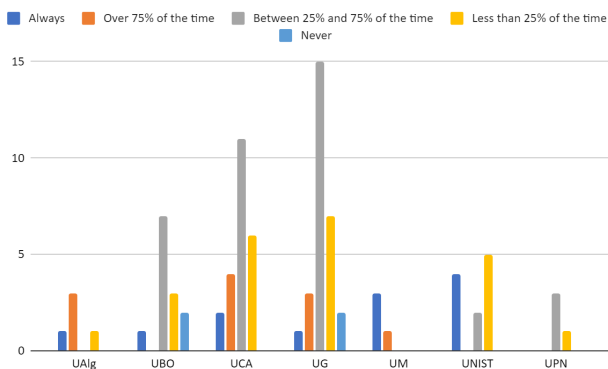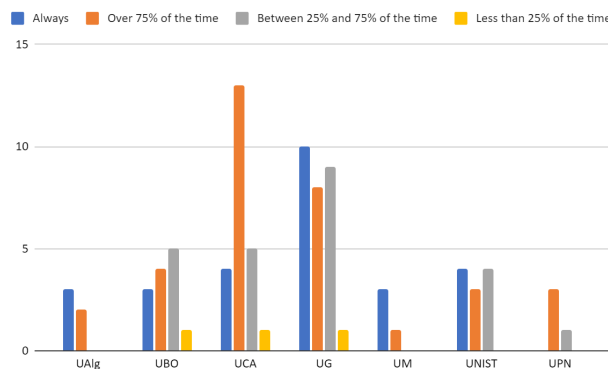**Figure 23:** Receiving emails in EN − Chemistry Academics

Figure 25: Reading work-related material in EN − Chemistry Academics
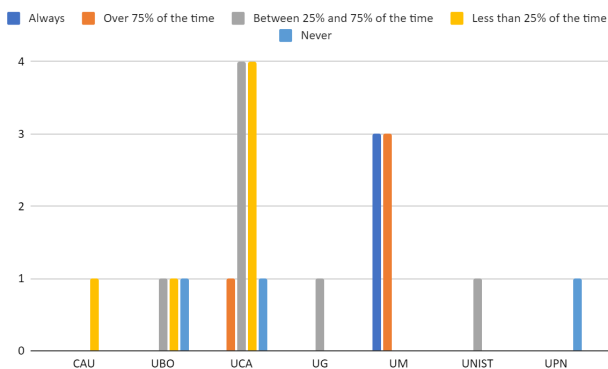

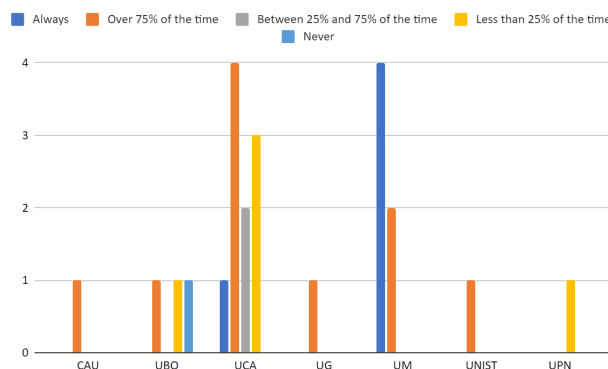**Figure 24:** Receiving emails in EN − Sociology Academics

Figure 26: Reading work-related material in EN − Sociology Academics

4.2.3 Reading Work Related Material In English During The Previous Month

Chemistry academics ($N = 84$): 27 respondents self-declare that they have always read work-related material in EN during the previous month. Only three respondents admit that they have read work-related material in EN less than 25% of the time. There were no submissions from CAU (See Figure 25).

Sociology academics ($N = 17$): Excluding UM, only one sociology respondent (from UCA) has always read work-related material in EN during the previous month. Meanwhile, one respondent (from UBO) has not read any work-related material in EN during the previous month. Five respondents admit that they have read work-related material in EN less than 25% of the time. There were no submissions from UAlg (See Figure 26).

4.2.4 Listening To Work Based Conversations In English (Frequency In Last Month)

Chemistry academics ($N = 84$): Excluding UM, most chemistry respondents from UAlg reported listening to work-related conversations in EN over 75% of the time during the previous month. The majority in UBO self-reported doing so between 25% and 75% of the time; while the UPN respondent and most respondents from UCA, UG and UNIST reported doing so less than 25% of the time. 14 respondents (17%) stated that they did not hear a single conversation in EN during the previous month at work. There were no submissions from CAU (See Figure 27).
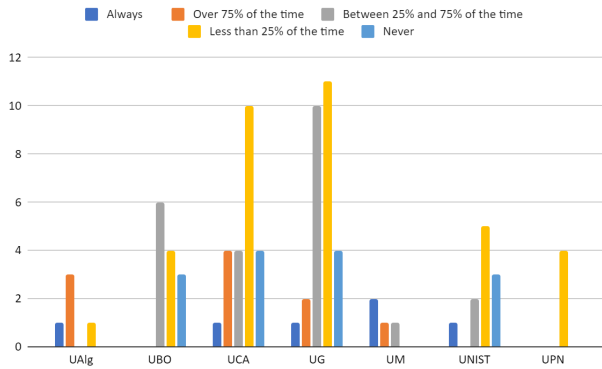
Sociology academics ($N = 17$): Excluding UM, only one respondent (from UG) has self-reported listening to work-related conversations in EN over 75% of the time during the previous month. Four respondents (24%) stated that they did not hear a single conversation in EN during the previous month at work. There were no submissions from UAlg (See Figure 28).

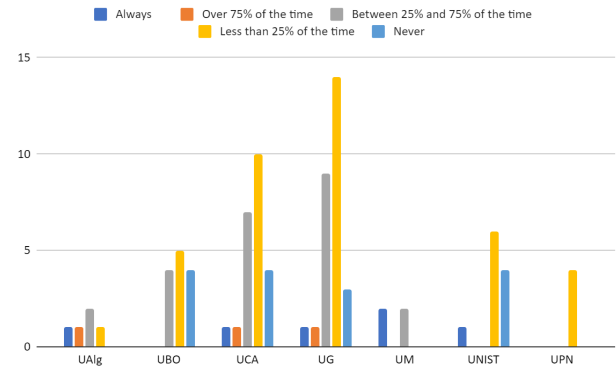**Figure 27:** Listening to work-based conversations in EN − Chemistry Academics

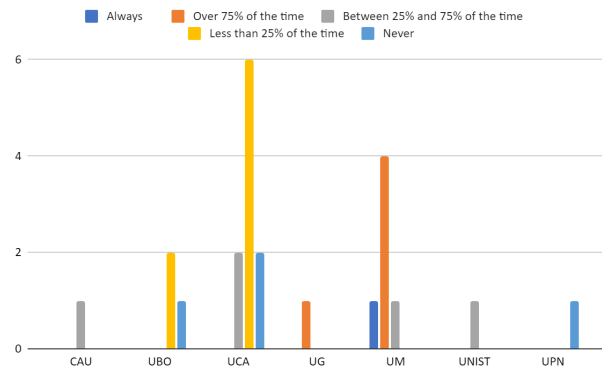**Figure 29:** Speaking EN at work − Chemistry Academics

Figure 28: Listening to work-based conversations in EN − Sociology Academics
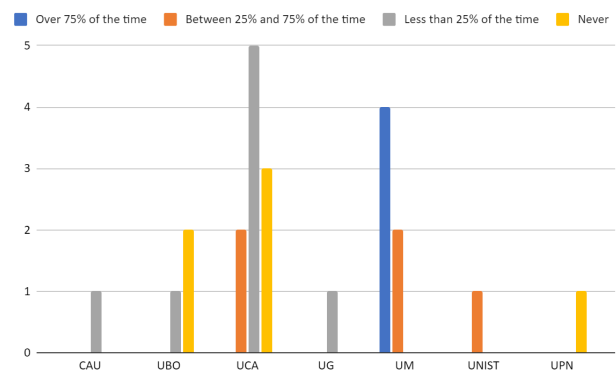

Figure 30: Speaking EN at work − Sociology Academics

4.2.5 Speaking English At Work (Frequency In Last Month)

Chemistry academics (N = 84): Excluding UM, only most chemistry respondents from UAlg self-reported speaking EN between 25% and 75% of the time at work during the previous month. All four UPN respondents and most responses in UBO, UCA, UG and UNIST self-reported speaking EN at work less than 25% of the time. 15 respondents (18%) admitted not having spoken English at all at work during the previous month. There were no submissions from CAU (See Figure 29). *Sociology academics* (N = 17): Six respondents (35%) admitted not having spoken English at all at work during the previous month. When UM is excluded, none of the other 17 sociology respondents has spoken EN at work over 75% of the time during the previous month. There were no submissions from UAlg (See Figure 30).

4.2.6 Dealing With Written Material (Emails, Circulars, Media Releases, Social Media Posts, Documents, Publications) In English (Frequency In Last Month)

This question is similar to that discussed under 3.2.4 above, but goes beyond written material associated directly with work. The answers interrogate the respondents' wider engagement with the English language beyond strict, work-related requirements.

Chemistry academics (N = 84): After excluding UM, only most respondents from UAlg self-reported over 75% of written material in English during the previous month. The majority in UCA, UG and UPN self-reported dealing with such material between 25% and 75% of the time; and a majority from UNIST self-reported less than 25% of the time. Results from UBO were mixed. Only three respondents (4%) self-report not dealing with *any* material written in EN at work during the previous month. There were no submissions from CAU. (See Figure 31).

Sociology academics (N = 17): *Four* respondents (24%) self-report not dealing with any material written in EN at work during the previous month. Excluding UM,

just one sociology academic (from UCA) declared dealing with English language material over 75% of the time during the previous month. The sociologist from UPN self-declared dealing with no EN language material at all. There were no submissions from UAlg (See Figure 32).
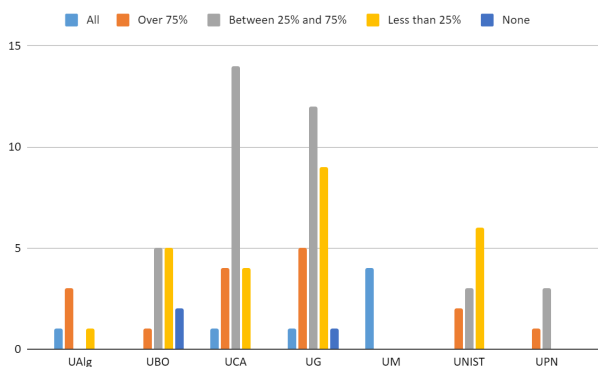

Figure 31: Percentage of written material in EN − Chemistry Academics

Figure 32: Percentage of written material in EN − Sociology Academics

4.2.7 Preparing Lecture Slides and Notes

Chemistry Academics ($N = 84$): Respondents from UAlg and a majority from UBO reported that they do not need to develop EN language skills when preparing lecture slides and notes. Meanwhile, most respondents from UCA, UG, UNIST and UPN selected a 'yes' answer. Overall, 43 chemistry respondents (51%) admitted that they would benefit from help to prepare their teaching slides and notes. There were no submissions from CAU (See Figure 33).
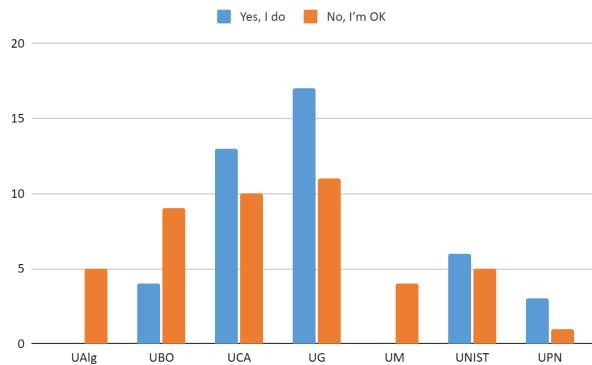
Sociology Academics ($N = 17$): Most respondents from CAU, UM, UNIST and UPN and the majority in UBO reported that they do not need to develop their EN language skills when preparing lecture slides and notes; while

most UG respondents indicated that they did. UCA reported equal submissions of yes and no. Overall, seven sociology respondents (41%) admitted that they would benefit from help to prepare their teaching slides and notes. There were no submissions from UAlg (See Figure 34).

Figure 33: Do you need to develop your EN skills to better prepare lecture slides and notes? − Chemistry Academics
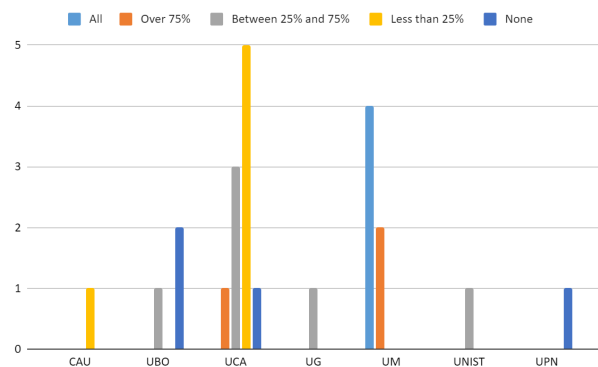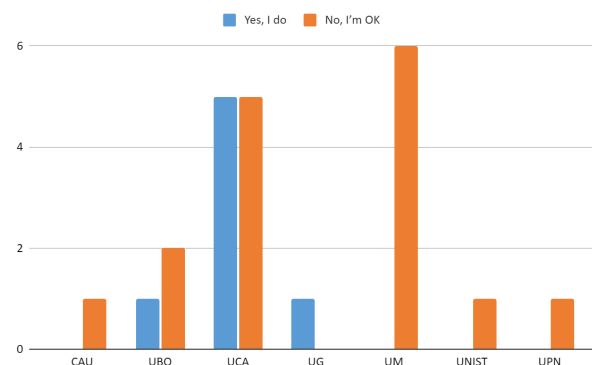

Figure 34: Do you need to develop your EN skills to better prepare lecture slides and notes? − Sociology Academics

4.2.8 Designing a Test or Exam

Chemistry Academics ($N = 84$): 35 respondents (42%) indicated a desire to improve their ability to design tests or exams in the English language. Except for UPN (which had a majority), and excluding UM, all universities had minorities of respondents that expressed an interest in coaching in this area. There were no submissions from CAU (See Figure 35).

Sociology Academics ($N = 17$): Seven respondents (41%) indicated a desire to improve their ability to design tests or exams in the English language. All responses from sociologists at CAU, UBO, UNIST and UPN – while excluding UM – indicated no desire for additional coaching in this area. There were no submissions from UAlg (See Figure 36).
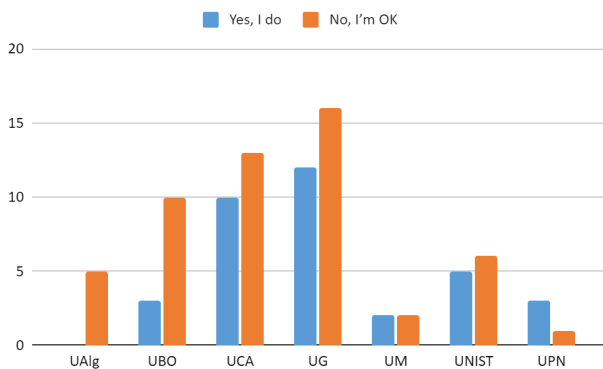
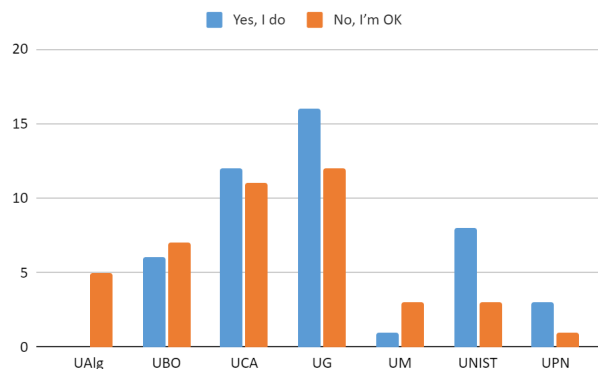**Figure 35:** Do you need to develop your EN skills to better design a test or exam? − Chemistry Academics

Figure 37: Do you need to improve your EN skills to better design lectures or laboratory sessions? − Chemistry Academics
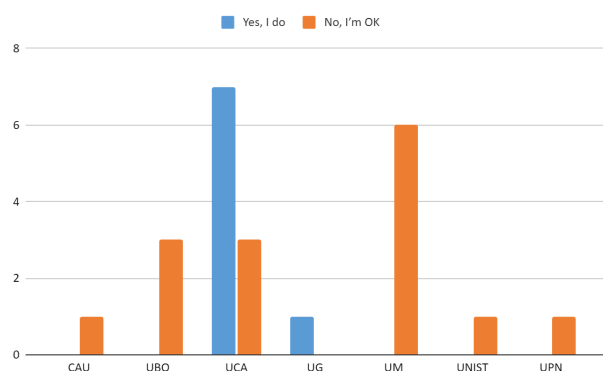

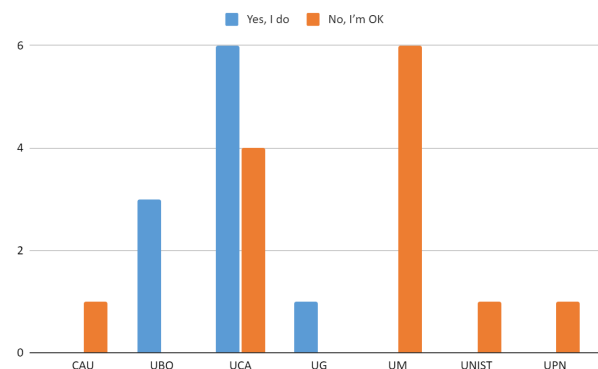**Figure 36:** Do you need to develop your EN skills to better design a test or exam? − Sociology Academics

Figure 38: Do you need to improve your EN skills to better design lectures or laboratory sessions? − Sociology Academics

4.2.9   Lecturing or conducting Laboratory Sessions

Chemistry Academics ($N = 84$): The Majority of chemistry respondents from UCA, UG, UNIST and UPN self-declare that they would benefit from such coaching; but just a minority from UBO (as well as one respondent from UM). 45 chemistry respondents (54%) are interested in coaching to improve their skills in this area. There were no submissions from CAU (See Figure 37). *Sociology Academics* ($N = 17$): 10 sociology respondents (59%) are interested in coaching to improve their skills here. There were no submissions from UAlg (See Figure 38).

5   Discussion and analysis

An aggregate assessment of the data from the various tables presented suggests that chemistry professors are indeed more immersed in the English language world of international academia than their sociology counterparts. This conclusion results from the consistently greater extent to which chemistry professors indicate an exposure to English language in a wide variety of work-related tasks; and the consistently greater extent to which they are interested in requesting support or coaching in the skills related to such tasks. This observation is also supported by the statements of chemistry professors who declare that they are more obliged to deliver courses/study units in the English language than their sociology counterparts: again, this is to the exclusion of UM academics, who self-report that they are all exposed to English-language demands at work, always or at least 75% of the time. Only three sociology respondents − one from UBO, one from UCA, one from UG (18%) − report some English language course/ study unit delivery, and all for less than

25% of the time. The situation for chemistry academics is different, with almost half – 37 respondents (44%) – self-reporting that they deliver courses/ study units in English (See Figures 39 and 40).
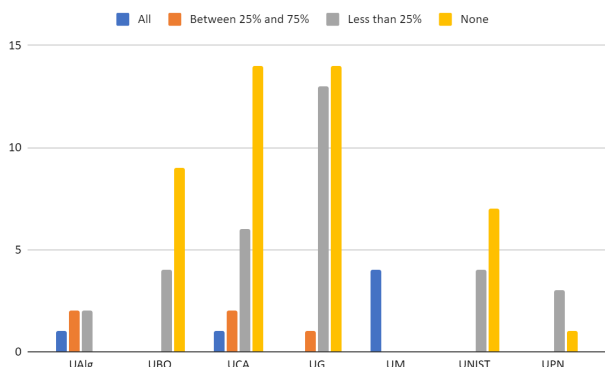

Figure 39: Percentage of lectures in courses/study units delivered in EN – Chemistry Academics
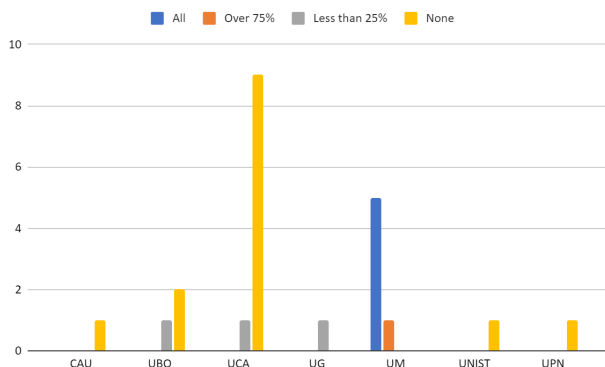

Figure 40: Percentage of lectures in courses/study units delivered in EN – Sociology Academics

A similar contrast is identified when the respondents were asked about the language of required readings for their courses/ study units. (UM stands on one extreme, with all recommended readings being in English, for both chemistry and sociology.) 25 chemistry respondents (30%) report no readings in English; as do 7 sociology respondents (41%). Excluding UM, 12 chemistry academics use English language material 75% of the time or more; in contrast, no sociology academic admits using such English language material so frequently (See Figures 41 and 42).
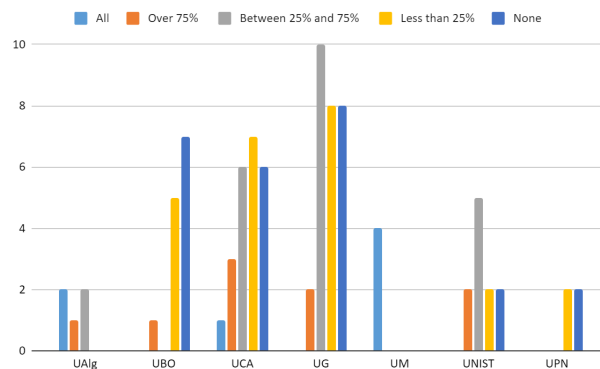

Figure 41: Percentage of required readings in EN – Chemistry Academics
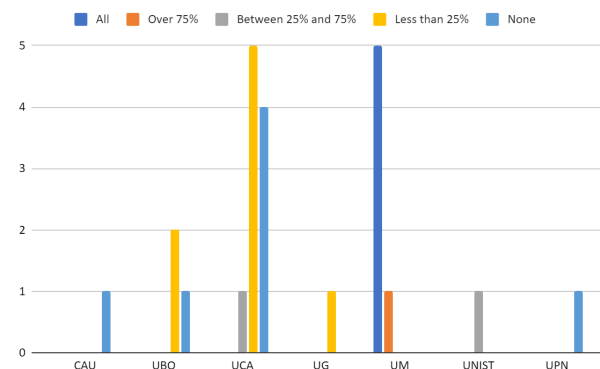

Figure 42: Percentage of required readings in EN – Sociology Academics

What about the proportion of slides and notes accompanying courses / study units? How many of these are in the English language? (For UM respondents, all slides and notes are self-reported as being in English.) For the chemistry respondents, only 23 respondents (27%) never used slides or notes in the English language. There were no submissions from CAU (See Figure 43). For the sociology respondents, just one non-UM academic (from UBO) reported using slides and notes in English during lectures for up to 75% of the time. All remaining 16 respondents (94%) indicated a low level of English language material usage: of 25% of the time, or less. There were no submissions from UAlg. (See Figure 44).
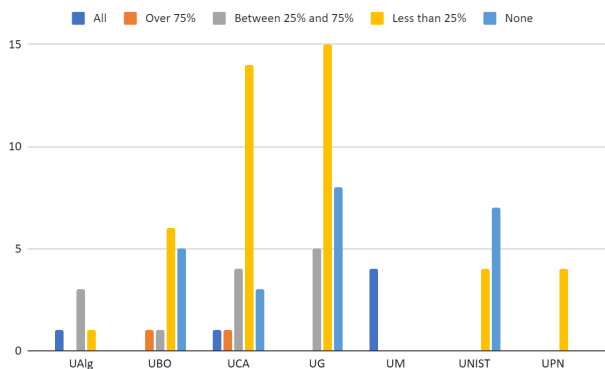
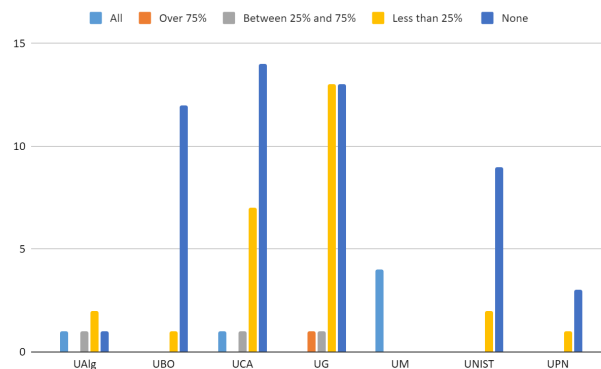**Figure 43:** Percentage of slides and notes accompanying courses/study units in EN − Chemistry Academics

Figure 45: Percentage methods of assessment in courses/study units in EN − Chemistry Academics
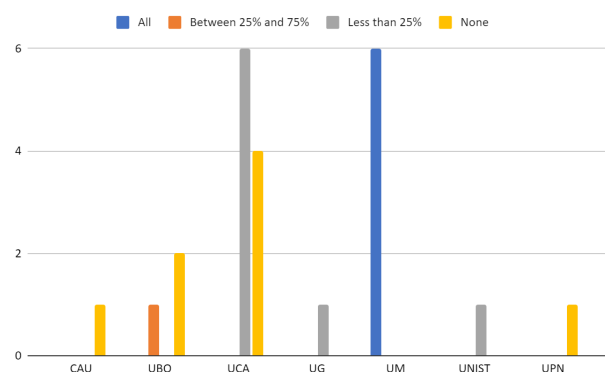

Figure 44: Percentage of slides and notes accompanying courses/study units in EN − Sociology Academics
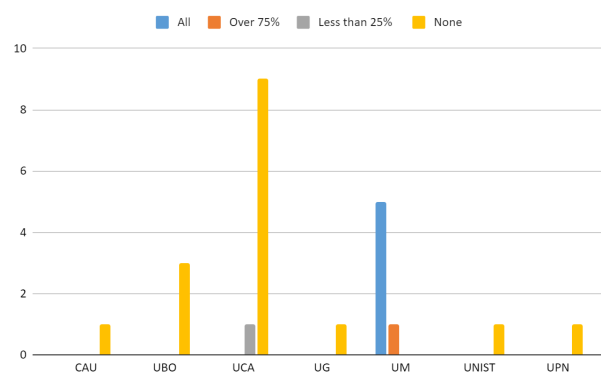

Figure 46: Percentage methods of assessment in courses/study units in EN − Sociology Academics

Finally, even when it comes to methods of assessment – exams, tests, assignments, projects, etc. – the chemistry subset evidences a higher level of exposure to the English language than the sociology subset. (The methods of assessment for UM are all self-reported in English.) *Chemistry academics* ($N = 84$): 32 respondents (38%) report some percentage of English language methods of assessment. There were no submissions from CAU (See Figure 45).

Sociology academics ($N = 17$): With one exception (from UCA), all respondents claim no methods of assessment in English. There were no submissions from UAlg. (See Figure 46).

The data supports the initial hypothesis: chemistry professors in European universities represent a disciplinary category that is more exposed to the English language than sociology professors in the same universities. Such differential exposure covers all aspects of language engagement: reading, listening, writing, speaking alone (as in a presentation) and speaking with others (as in a dialogue), as well as preparing notes, slides, and tests for students. Although the data on which this conclusion is based is totally made up of self-reported assessments, they are consistent and regular enough to warrant such a statement.

What is the rationale behind the hypothesis? Some co-authors of this paper are sociologists; and some responded to the survey questionnaire. They admit that, in all universities covered by the December 2023 survey except UM, it is possible to run certain university classes, offer certain readings, and issue certain methods of assessments without the use of the English language. Nevertheless, incoming ERASMUS+ and/or international students are likely to be looking for classes that are taught in Eng-

lish; and they will vehemently protest if such classes drift into national language settings. Even in classes which are officially meant to be taught in the native language, non-native students may request that their professors provide them with materials, such as readings and assessment options, in English. It becomes a vicious cycle when such courses, laboratory sessions or assessments, being offered in the national language, do not attract international or Erasmus mobility visiting students, obviating the need to consider introducing some measure of English into the running of the activity. It is also more possible for sociologists to publish research in national journals, as national monographs, etc., which once again reduces, or perhaps eliminates, the need to produce scholarship in the English language. One must remember that most universities also have a responsibility to promote the national culture and language. UM is an exception here, since the language of instruction is not the national language: quite unique for a public university (University of Malta, 2021).

6 Conclusion

In a globalised world English is socially constructed as a language of development, emancipation, science, and technology as well as a language of unity and reconciliation (Mohanty, 2019). The linguistic landscape at the contemporary university is complex. The increasing prominence of the English language in this context is both key and contentious (Murray, 2016, p. 1). This paper set out to examine whether those teaching chemistry and sociology at nine European universities experience similar pressure and environment when it comes to the use of the English language at work. The results suggest that they are not. The implications of these results are worth some deep reflection. The wave of internationalisation that is impacting many universities – and encouraged by the drive to move up the global rankings – does not unfold evenly and uniformly on their campuses. We are not referring to pockets of indifference or resistance which are also bound to occur: some academics may refuse or avoid as much as possible lecturing in a foreign language; especially in situations where their own students may have an English language competence that is stronger than the academics' own. Research in EMI also suggests that teaching in a non-native language increases the level of difficulty for (local) students and slows down their pace of acquisition (Ozer, 2020; Xiao & Zou, 2020). Setting up professional development courses for lecturers, and supplementary English courses for domestic students to help them adapt to the English-language driven situations, may both be required (Aizawa & McKinley, 2020). This paper is suggesting that disciplines already face the threat, or promise, of English language competence from different

starting points. The nature of a discipline, and how the craft gets practised, exposes academics to more or less of the English language. This situation, in turn, breeds varying leves of enthusiasm, motivation, urgency or willingness to improve one's skills in this language. We agree with Robichaud (2015, p. 175) that: "a substantial portion of the population [could be convinced] not to learn English, or at least not to use it in some contexts [. . .] especially in more formal contexts where the symbolic significance of political decisions can be very important." But, on the other hand, English speakers benefit from their English proficiency due to the dominance of English as a lingua franca in academic contexts. The proficiency gap between native and non-native English speakers could be problematic in some cases, "since native or very proficient speakers are likely to enjoy greater opportunities (for work, study, etc.) than less proficient speakers" (Mac Giolla Chríost & Bonotti, 2018, p. 69). Bubbles or pools of anti-internationalisation may exist in every higher education institution; but disciplinary allegiance, training and a sense of belonging to one's place of residence can either improve or worsen the prospects of isolation or exposure and openness to a wider dimension.

Disclaimer

The authors report no conflicts of interest.

References

Aizawa, I., & McKinley, J. (2020). EMI challenges in Japan's internationalization of higher education. In H. Bowles & A. C. Murphy (Eds.), *English-medium instruction and the internationalization of universities* (pp. 27–48). Palgrave Macmillan.

Blackwood, R., & Dunlevy, D. A. (2021). *Multilingualism in public spaces: Empowering and transforming communities*. Bloomsbury Academic.

Coleman, J. A. (2006). English-medium teaching in European higher education [Online]. *Language Teaching*, *39*(1), 1–14.

Crystal, D. (2004). The past, present, and future of World English. In A. Gardt & B. Hüppauf (Eds.), *Globalization and the future of German* (pp. 27–45). De Gruyter.

Di Bitetti, M. S., & Ferreras, J. A. (2017). Publish (in English) or perish: The effect on citation rate of using languages other than English in scientific publications. *Ambio*, *46*(1), 121–127.

Edwards, J. (2012). *Multilingualism: Understanding linguistic diversity*. Continuum.

Gramling, D. (2021). *The invention of multilingualism*. Cambridge University Press.

Granić, J. (2012). Multilingual Reality vs. Monolingualist Ideology. In M. Jernej, J. Lah & A. Iveković Martinis (Eds.), *Multilingualism in the public sphere: Program and abstracts* (pp. 85–86). Institute for Anthropological Research; Croatian Anthropological Society.

Granić, J. (2017). The European identity crisis and the promotion of linguistic diversity. In S. Ureland & L. Sočanac (Eds.), *Glottogenesis and language conflicts in Europe* (pp. 91–109). Logos Verlag Berlin.

Grin, F., Conceição, M. C., Caruso, E., & Costa, N. (2018). What is the role of English in multilingual and multicultural learning spaces? In F. Grin, M. C. Conceição, P. A. Kraus, L. Marácz, Z. Ozolina, N. K. Pokorn & A. Pym (Eds.), *The MIME vademecum: Mobility and inclusion in multilingual Europe* (pp. 140–141). Artgraphic Cavin (for the European Commission).

Horner, K., & Dailey-O'Cain, J. (2020). *Multilingualism, (im)mobilities and spaces of belonging* (K. Horner & J. Dailey-O'Cain, Eds.). Multilingual Matters.

Liang, L., Rousseau, R., & Zhong, Z. (2013). Non-English journals and papers in physics and chemistry: Bias in citations? *Scientometrics*, *95*, 333–350.

Long, M. H. (2010). *Second language needs analysis*. Cambridge University Press.

Mac Giolla Chríost, D., & Bonotti, M. (2018). *Brexit, language policy and linguistic diversity*. Palgrave Macmillan.

Mary, L., Krüger, A.-B., & Young, A. S. (2021). *Migration, multilingualism and education: Critical perspectives on inclusion* (L. Mary, A.-B. Krüger & A. S. Young, Eds.). Multilingual Matters.

Metsola, R. (2023). Multilingualism: expressing unity through diversity. In C. de Toledo, S. Tafrov, J. Pascual et al. (Eds.), *Multilingual postcards* (pp. 125–128). Court of Justice of the European Union & Publications Office of the European Union.

Mohanty, A. K. (2019). *The multilingual reality: Living with languages*. Multilingual Matters.

Murray, N. (2016). *Standards of English in higher education: Issues, challenges and strategies*. Cambridge University Press.

Ozer, O. (2020). Lecturers' experiences with English-medium instruction in a state university in Turkey: Practices and challenges. *Issues in Educational Research*, *30*(2), 612–634.

Phillipson, R. (2003). *English-Only Europe?: Challenging language policy*. Routledge.

Phillipson, R. (2007). *English in Europe: Threat or promise?* (M. Nic Craith, Ed.).

Piquer-Píriz, A. M., & Castellano-Risco, I. O. (2021). Lecturers' training needs in EMI programmes: Beyond language competence. *Alicante Journal of English Studies RAEI*, *34*, 83–105.

Robichaud, D. (2015). Cooperative justice and English as a lingua franca: The tension between optimism and Anglophones free riding. *Critical Review of International Social and Political Philosophy*, *18*(2), 164–177.

University of Malta. (2021). *Comprehensive guidelines for the use of language at the University of Malta* (tech. rep.) (https://www.um.edu.mt/media/um/docs/languageuseguidelines.pdf). University of Malta.

Xiao, J., & Zou, X. (2020). Strategy use to overcome difficulties in EMI courses in higher education. *International Journal of Innovation and Research in Educational Sciences*, *7*(6), 503–519.

Zanola, M. T. (2024). Language policy in higher education. In M. Gazzola, F. Grin, L. Cardinal & K. Heugh (Eds.), *The Routledge handbook of language policy and planning* (pp. 483–496). Routledge.