Views of teachers and students about EMI at a Brazilian federal university: implications for language policy

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Abstract: Internationalization is listed as one of the main goals of the Federal University of Santa Maria in its Institutional Development Plan for the period of 2016-2026, and the use of English as a Medium of Instruction (EMI) is pointed out in the document as one of the strategies to achieve this goal. Although it is unofficially known in the institution that graduate classes in some areas are already taught in English, there is no systematic information about these experiences nor an official policy about EMI. The present work attempts to contribute to fill this gap as it reports the main results of an online survey about interests, perspectives and needs in relation to EMI at the university. The survey included professors and students and the data were mainly analyzed quantitatively, in order to establish general patterns within each group and comparisons across groups. The results showed that both professors and students express interest in engaging in EMI classes, but that policy regulation and language support programs are seen as necessary measures to implement it.

Keywords: English as a Medium of Instruction. Internationalization. Academic literacies. Language policy.

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1. Background

The interest in English as a Medium of Instruction (EMI) seems to have reached its momentum in the scenario of Brazilian universities, propelled by a national agenda to internationalize higher education. Recent results published in the Guide to EMI in Brazilian higher education (GIMENEZ et al., 2018), based 84 Brazilian institutions (61% of the total number of 240+ institutions that were contacted[1]), reveal "an overall increase in the number of courses registered from 671 in 2016 to over 1,000 in the first semester of 2018" (p. 6). The number of institutions, particularly public universities, offering EMI also increased "from 51.1% in 2016 to 61% in 2018" (GIMENEZ et al., 2018, p. 16).

The Guide considered curricular as well as extracurricular activities that are "taught or carried out in English as a means of instruction" but that did not aim at teaching the English language (GIMENEZ et al., 2018, p. 14). As proposed by Baumvol and Sarmento (2016, p. 74-76), the definition of "means of instruction" can be interpreted in different ways and, therefore, EMI may take different configurations. It may be understood, for example, as the use of English in course materials only, but with classroom interactions and evaluation carried out in Portuguese, or as the use of English only by the (Brazilian) teacher in classroom, or still as a course in which both a Brazilian teacher and the Brazilian students use English in classroom interactions as well as in tests/exams. In our work we consider the definition of EMI as "the teaching and learning of an academic subject (i.e. economic history, chemistry, aeronautical engineering, etc.) using English as the language of instruction" (DAFOUZ, 2018, p. 170) in higher education institutions of "countries or jurisdictions where the first language (L1) of the majority of the population is not English" (DEARDEN, 2016, p. 4) and where English is used both by teachers and by students in oral and written classroom interactions and materials.

In this type of EMI, as the name implies, English is a means to an end, not the end in itself. The focus of EMI is to learn the content of the academic subject rather than the language (DAFOUZ, 2018, p. 170). Nevertheless, previous studies have pointed out that, in institutions that use EMI, there is an expectation that it will contribute to improve

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[1] The survey was carried out online by a partnership between the British Council and FAUBAI and published in the "Guide to English as a Medium of Instruction in Brazilian Higher Education Institutions 2018-2019".

English proficiency of staff and students quantitatively and qualitatively (BELEEN; JONES, 2015) and bring "instrumental advantages for home students (improving English and opportunities to study and work abroad)" (MACARO et al., 2018, p. 64). Although a few studies have aimed at measuring this improvement, for Macaro et al. (2018, p.57-58), it is "extremely difficult" to make an overview assessment of the impact of EMI on English language learning because of the "paucity of language impact studies, coupled with the variability in test instrument types" and with differences in the type of proficiency that is measured: in general English or "to learn effectively in an EMI context".

In addition to language learning, other motivations for the use of EMI seem to be similar in different parts of the world. Martinez (2016, p. 195), based on previous literature about EMI in China and in Europe, lists three major motivations for the use of EMI: "attract students from other countries; prepare students for mobility and a globalized labor market; raise the profile and ranking position of the university." For Dafouz (2018, p. 170), the use of EMI is associated to two objectives:

> 1) recruiting international talent (students and staff) and thus promoting incoming mobility, multilingual and multicultural groups and thus increasing revenue from international students; and 2) developing the so called strategy of "internationalization at home" (Nilsson, 1999), which aims to make internationalization accessible to largely monolingual groups of national students and staff through the use of English and the incorporation of international goals and learning outcomes in the formal and informal curriculum (Leask, 2013:106).

For a number of authors, however, as for Dearden (2016, p.2), the "global" aims and purposes of EMI are less straightforward "because it appears to be a phenomenon which is being introduced 'top-down' by policy makers and education managers rather than through consultation with the key stakeholders". The top-down approach was also documented by Macaro et al. (2018) and led to the conclusion that the global growth of EMI "appears to be top-down policy driven, rather than bottom-up and promoted by enthusiastic key stakeholders (teachers and students)" (p. 64). For Martinez (2016), a top-down EMI policy probably generates more resistance than a bottom-up policy.

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The potentially negative impact of the use of EMI has also been addressed in previous studies. A major concern is "the creation or consolidation of socio-economic elites and anti-egalitarian outcomes for students" (MACARO et al., 2018 p. 64), or, in the words of Dearden (2016, p. 2), "the potentially socially divisive nature of EMI because instruction through English may limit access from lower socio-economic groups and/or a fear that the first language or national identity will be undermined". Lack of proficiency could have a negative impact on content learning or inhibit students to enroll in EMI courses at all because of fears of losing quality of learning and because exposure in classroom could also lead to issue of judgement and prejudice. For Macaro et al. (2018, p. 38), "[w]e need to find out whether differing levels of students' language proficiency lead to inequalities of opportunity [...] for perfectly capable content students". These fears may also affect teachers for similar reasons. Further concerns regarding teachers and EMI are "additional workload" and "lack of teacher professional development and support" (MACARO et al., 2018, p. 64).

Most of these concerns have been subject of debate in Applied Linguistics research for some time, particularly in the area of English for academic purposes and academic literacies, in discussions about linguistic imperialism, English as *lingua franca*, proficiency, genre awareness, critical approaches to (academic) literacy(ies), pedagogical approaches and technology in language teaching, genre theory and oral academic genres (seminar, lecture). More recently, a growing number of studies has – more or less directly – addressed these issues in relation to EMI and internationalization in Brazil (BAUMVOL; SARMENTO, 2016; MARTINEZ, 2016; FREITAS; DELGADO, 2018; GUIMARÃES; FINARDI; CASOTTI, 2019; GUIMARÃES; KREMER, 2020; RIBEIRO; 2020). Hence, specialists in this area should be seen as key stakeholders, along with EMI teachers and students, in a bottom-up process of implementing EMI in Brazil.

In light of these reflections, in 2018 we proposed a 4-year project about EMI at the Federal University of Santa Maria (henceforth, UFSM) (HENDGES, 2018), were we work and study, to map features of the local context, culture and identity and their implications to the implementation of EMI. UFSM is a public federal university of around 30,000 people (students, teachers and technical staff), located in the most southern state of Brazil, Rio Grande do Sul, with its main campus

in the city of Santa Maria. It was founded in 1960 as the first Brazilian university not located in a state capital and, to this day, it is a key destination for students or public schools of smaller rural towns of the northwest, west, and southwest of the state.

Our EMI project comprises three main stages: survey of interest and needs addressed at the whole population of teachers and students; case study of lessons learned from previous experiences and awareness raising and action. Due to limitations of space, in the present work, we report results of the first stage[2], with a focus on quantitative comparative data about interest in EMI of university teachers and students and the extent to which this interest is affected by the following variables: profile, background experiences, and attitudes. We close the paper with a list of implications of the findings for EMI policy making and for language-based action.

2. Local rationale

Our interest in EMI emerged within the Languages without Borders (LwB) program at the Federal University of Santa Maria (henceforth UFSM), as general coordinator and teachers of English[3], where we observed an increasing space for EMI in the discourse of administrators (for example, in meetings with the International Relations office of UFSM to discuss budget and language demands) and in official documents. Both the Institutional Development Plan 2016-2026 (UFSM, 2016) and the Institutional Internationalization Plan (UFSM, 2017) indicate EMI as one of the drivers of the internationalization of UFSM.

The study of EMI is easily situated within the realm of English for academic purposes and academic literacies research, which has been the main area of investigation of the Laboratório de Pesquisa e Ensino de Leitura e Redação (LabLeR) at UFSM, of which all three authors are part.

We began the EMI project in 2018, when there was no official information available about whether, why, where and how EMI was used at UFSM. But the university had participated in the national British Council-FAUBAI survey (GIMENEZ et al., 2018, p. 23-26) and the

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2 Results of the first stage were also used to develop an undergraduate final paper (RODRIGUES, 2019) and a Masters dissertation (PRETTO, 2020).

3 The first author, Graciela R. Hendges, coordinated LwB at UFSM from 2012 to 2019. Gabriel S. Rodrigues and Amanda M. Pretto were English teachers at LwB, from 2019-2020 and 2016-2018, respectively. Both were undergraduate students majoring in English teaching at UFSM.

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published report indicated that UFSM offered four EMI courses in 2017 (one undergraduate and three postgraduate) and 21 EMI courses in 2018.1 (all undergraduate). In 2020, the institutional 2018-2019 report for the CAPES-PrInt program (UFSM, 2020, p. 51-52) indicated that 19 postgraduate courses used English-only or English-Portuguese as means of instruction, four in 2018 and 15 in 2019. The combination of these results indicates that EMI was used in 44 courses of UFSM between 2017-2019 (Table 1).

Table 1 – Official numbers about EMI at UFSM in 2017-2019

	2017		2018		2019	TOTAL
	Undergraduate	Postgraduate	Undergraduate	Postgraduate	Postgraduate*	
English	1	3	21	4	6	35
Portuguese/ English	-	-	-	-	9	9
TOTAL	4		25		11	44

* Only data about postgraduate EMI courses are available

Source: Elaborated by the authors, based on Gimenez et al. (2018) and UFSM (2020)

We believe the growth of EMI at UFSM helps to justify the relevance of our project. It is also the first survey of this kind developed at UFSM about UFSM and includes the voice of the students about EMI, as detailed in the next section.

3. Method

3.1 Participants

We received 815 participants in the survey, 136 teachers and 679 students. At the time (October 2019), these numbers corresponded to 7.35% of the target teacher population (n = 1,848) and 2.6% of the targeted students (n = 26,042).

Teachers of English and of literature in English (n = 11) were excluded from the sample, as well as students of the undergraduate and graduate degrees in language and literature (Portuguese, Spanish, and English) (n = 771[4]), because elective courses with explicit focus on

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4 The number of excluded teachers was provided by the institutional administrator of the questionnaire at the time (2019), but the number of excluded students is approximate as it represents the total of enrollments in October 2020, not October 2019. We initially did not realize that this total was missing and it was no longer available when we started preparing the current report.

English language leaning are part of their curricula. The target student population includes all educational levels of the university: technical high school, technical post-secondary education, undergraduate and postgraduate, from both in-class and distance education courses at all four campuses of the university (all of which are located in the Southern state of *Rio Grande do Sul* – as detailed in the Results section).

Although the low participation rates in both groups may undermine the statistical significance of the results and prevent us from making unbiased generalizations, we consider the numbers sufficiently significant as first and pilot survey to inform institutionalized actions towards EMI.

3.2 Instrument

In order to address a large population from different geographical locations in a short amount of time[5], the study was conducted using a web-based questionnaire containing 33 questions of four types: multiple-choice, checkbox, semantic differential scales and short-answer[6]. All questions were in Portuguese and designed to provide three kinds of data (based on Dörnyei, 2003, p. 8, who uses the terms "factual", "behavioral" and "attitudinal"):

1) profile: questions related to characteristics of the participants "that may be relevant to interpreting the findings" (DÖRNYEI, 2003, p. 8), such as "What is your Faculty?", "How long do you teach at the university?", "What levels do you teach?";

2) background experiences: questions about participants' knowledge of English and previous experiences with the language and with EMI in academic contexts, such as "What is your level of proficiency in English in each of the following communicative skills?", "Have you ever been on international

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5   Questionnaires are also efficient to save "(a) researcher time, (b) researcher effort, and (c) financial resources" (DÖRNYEI, 2003, p. 09) and to offer participants autonomy to manage their time to answer the questions. We were three researchers in the group and only one had a partial fellowship. The timetable to complete the study was determined by the deadlines of two researchers, one had to present a final paper until December 2019 to complete the English teaching undergraduate degree, the other had to finish her Masters dissertation until the beginning of 2020.

6   Multiple-choice and checkbox questions contain sets of options to choose from. Following guideless of the Ethics Committee of the university, among the options we included "Unable to answer" and/or "Other" in an attempt to avoid frustrating or distressing the participants. In the multiple-choice type, only one option can be chosen, while in the checkbox questions it is possible to choose more than one option. In semantic differential scale questions, respondents are asked to grade an item according to a scale (of importance or frequency, for example). Short-answer questions participants can write their answers.

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academic exchange?", "Indicate the frequency you use English in each of the following classroom situations.", and

3) <u>attitude</u>: questions about participants' perceptions and interests in relation to EMI, such as "If you have never used EMI in your classes before, would you be interested in adopting it in the future?", "In your opinion, what is the impact of switching to the use of EMI in a course you were used to teaching in Portuguese?", "What is your point of view about the institutionalization of EMI at UFSM, through legal regulation?", "What institutional initiatives do you consider important to encourage and support the use of EMI at UFSM?".

When necessary, questions were adapted to suit each audience (teacher or student). The links to the questionnaires were sent using the universities e-mail mass messaging service. The questionnaire for the teachers was available for contributions for 42 days (September 3 – October 15) and the questionnaire for the students was available for 26 days (October 15 – November 10). The teachers' questionnaire was issued first as a kind of pilot experience to evaluate the rate of participation and the clarity of the items. It was available for longer because we extended the initial deadline (September 30) in an attempt to obtain more participation, boosted by a reminder notice sent on October 10. The reminder notice successfully increased the number of teacher respondents from 87 to 136 and was also employed with the students.

Other strategies to motivate participation we also applied, inspired by Dörney (2003, p. 86-89): "institutional sponsorship", "potential significance of the results" and, most importantly, "style and layout of the questionnaire". To indicate *institutional sponsorship*, the opening letter that accompanied each questionnaire explicitly mentioned that study represented the interests of the university's International Office (SAI – *Secretaria de Apoio Internacional*). The *potential significance of the results* was also highlighted in the opening letter by describing the study as an internationalization initiative, which, as pointed out earlier in the Introduction, has been highly valued nationally and locally, and by indicating the impact of the results in informing action to support EMI teachers and students. To use *style and layout* as motivation, we used a variety of question styles (including different graphic features such as charts) in an attempt

to "make the answering process less monotonous" (p. 89). Questions with list of choices (28 of 33) were favored over open-ended questions (5 of 33) because the latter require more effort, which could lead to abandonment or demotivation. Furthermore, we tried to make the language and structure of instructions accessible to an audience with diverse backgrounds and identities. For example, in *checkbox* questions, explicit observations ("accepts more than one answer") were added to indicate that respondents could select a combination of answers from the list of options, aiming at participants who were not familiar with the meanings of the different shapes of the buttons in *checkbox* questions and *multiple-choice* questions.[7] We also added definitions to explain and add precision to concepts, and spaces for "comments" or for "other" answers were part of most questions, in addition to options such as "I don't know" and "not applicable". For example, the first time the questionnaire demanded an answer based on the definition of EMI, the definition was clarified: "An 'explicit' version of EMI is characterized by the use of English in curricular courses (compulsory o elective) to teach contents orally in English. Considering this definition, have you ever used EMI at UFSM?". We expected that this clarification would support comprehension and specify the kind of EMI relevant for the current study, one that necessarily includes the use of oral English by the teacher. Nevertheless, other words such as "internationalization" and "proficiency" were not defined in the questionnaire because we assumed that the target audiences were familiar with some concept of them and because different interpretations of these concepts would not affect the main purpose of the study at this stage. It was also important to avoid inflating the questionnaire with information that was not related to our purpose.

3.3 Analytical procedure

The analysis is predominantly quantitative and focuses, firstly, on identifying degrees of interest in EMI in each group of participants – teachers and students – and, secondly, in describing patterns within and across groups in relation to three variables: profile, background experiences, and attitudes. As an example, we wanted to see to what

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7   Circular buttons in Multiple-choice questions indicate that the respondent can select only one answer from a list of options; square buttons in checkbox questions indicate that respondent can select multiple answers from a list of options.

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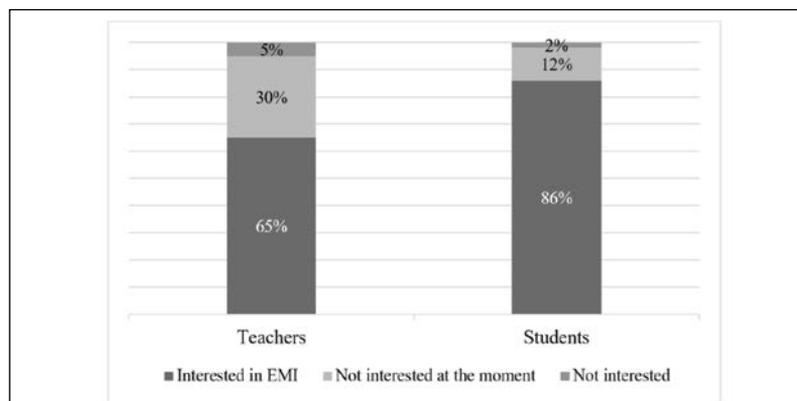*Rodrigues*

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extent previous international mobility experience would influence interest in EMI, or if there is a visible variation in how each disciplinary community evaluates EMI.

4. Results

By favoring a definition of EMI as the use of English in (elective or mandatory) curricular courses to teach contents orally in English, we wanted to diagnose interest in this specific kind of EMI at UFSM. Of the 815 respondents, 83% (*n*=675) said they are interested in teaching using EMI (teachers) or in attending in EMI courses (students). This percentage varies a little when each group is considered individually, with 65% (*n*=89) of the teachers and 86% (*n*=586) of the students indicating interest (Figure 1).

For a reasonable amount of teachers (30%, *n*=41), the use of EMI is not an immediate project, compared to only 12% (*n*=83) students. It is interesting to notice that 70% (*n*=473) of the student participants are undergraduates, which seems to suggest a suppressed demand, as the majority of EMI courses in Brazilian higher education has taken place at postgraduate level (GIMENEZ et al., 2018, p. 19).

Figure 1. Interest in EMI at UFSM

Source: Elaborated by the authors

In the following paragraphs, we compare the perspectives and discourses of teachers and students about how different features related to profile and background experiences affect interest in EMI.

4.1 Disciplinary fields and interest in EMI

Data about the disciplinary field of the target population were collected through the profile-based questions and primarily aimed at identifying whether and how different areas of study affect interest in EMI. As widely documented in research on English for Academic Purposes, English has been more prevalent in hard and health sciences than in humanities and social sciences, particularly in publications, and this pragmatic variable may influence perceptions about EMI.

For the classification of the disciplinary fields in our study, we used the university's organogram, which organizes the fields of the base campus into eight faculties/schools (Figure 2). This allowed us to simplify the question about discipline affiliation and facilitated the systematization of the answers[8], and it provided sufficient detail for the current purposes.

Figure 2. Organization of the fields into faculties in the base campus

CODE	FULL NAME	TRANSLATION	DEGREES
CAL	Centro de Artes e Letras	Faculty of Arts and Letters	Dance, English, Industrial Design, Music, Performing Arts, Portuguese, Spanish, Theater, Visual Arts
CCNE	Centro de Ciências Naturais e Exatas	Faculty of Natural and Hard Sciences	Biology, Chemistry, Geography, Industrial Chemistry, Mathematics, Meteorology, Physics, Statistics
CCR	Centro de Ciências Rurais	Faculty of Rural Sciences	Agribusiness, Agronomy, Food Technology, Forest engineering, Veterinary Medicine, Zootechnics
CCS	Centro de Ciências da Saúde	Faculty of Health Sciences	Dentistry, Medicine, Nursing, Occupational Therapy, Phonoaudiology, Pharmacy, Physio-therapy
CCSH	Centro de Ciências Sociais e Humanas	Faculty of Social Sciences and Humanities	Accounting, Archival Sciences, Business administration, Economics, History, International Relations, Journalism, Law, Media and Communication, Philosophy, Psychology, Social Sciences, Social Service, Tourism Management
CE	Centro de Educação	Faculty of Education	Education, Religion Sciences, Special Education
CEFD	Centro de Educação Física e Desporto	Faculty of Physical Education and Sport	Physical Education
CT	Centro de Tecno-logia	Faculty of Technology	Architecture, Computer Science, Information Systems, and Engineering degrees: Acoustic; Aerospace; Civil; Chemical; Computer; Control and Automation; Electrical; Environmental and Sanitary; Mechanical; Production

Source: Elaborated by the authors

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8   It would have been impractical to list all 267 courses (vocational, undergraduate, and graduate) to choose from or to manage a potentially big amount of information if we had asked each potential participant to write down their disciplinary field.

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Those teachers and students of the regional campuses and of the technical education level are not arranged by disciplinary field but by campus or school. The three campuses are CS – Cachoeira do Sul, FW – Federico Westphalen, and PM – Palmeira das Missões. The two technical schools are POLI – Colégio Politécnico (Polytechnic School) and CTISM – Colégio Técnico Industrial (Industrial and Technical School).

The results show substantial differences in EMI interest rates among the teachers across the disciplinary fields and the sectors. Conversely, among the students, interest in EMI is more evenly distributed across the fields and the campuses and schools (Table 2).

The maximum level of interest – 100% – is shown by teachers in the physical education field (*n*=4 teachers) and those of the PM campus (*n*=9 teachers), followed by teachers in the rural sciences (89%, *n*=8), technology (86%, *n*=12), and hard sciences (75%, *n*=15). In numbers, these represent a group of 48 teachers (35% of the participants). Although 48 may seem a low number considering the whole teacher population (*n*=1,848), it is meaningful for the implementation of an experimental EMI teacher development program targeted at these teachers and disciplinary communities. It becomes even more meaningful because the students in these fields also show high interest in EMI, particularly those in the rural sciences (90%, *n* = 94) and in technology/engineering degrees (91%, *n*=101) (Table 2).

Further data from the students show high percentages of interest in a number of other fields: CAL – humanities (88%, *n*=22), CCS – health sciences (88%, *n*=50), and CCSH – social sciences (86%, *n*=101), as well the students from the external campuses of CS, FW and PM (95%, 91% and 84%, respectively). In numbers, these groups represent 93 students, again a relevant number for pilot EMI support initiatives.

Table 2. Interest in EMI across disciplines

	CAL	CCNE	CCR	CCS	CCSH	CE	CEFD	CT	POLI	CTISM	CS	FW	PM	UAB	Other	Total
Teachers (*n*)	19	20	9	20	18	7	4	14	2	0	6	8	9	--	--	136
Interested in EMI (*n*)	7	15	8	10	11	3	4	12	0	--	4	6	9	--	--	89
Rate (%)	37	75	89	50	61	43	100	86	0	--	67	75	100	--		65
Students (*n*)	25	51	105	57	118	42	9	111	17	12	37	34	32	19	10	679
Interested in EMI (*n*)	22	40	94	50	101	32	7	102	14	12	35	31	27	13	6	586
Rate (%)	88	78	90	88	86	76	78	91	82	100	95	91	84	68	60	86

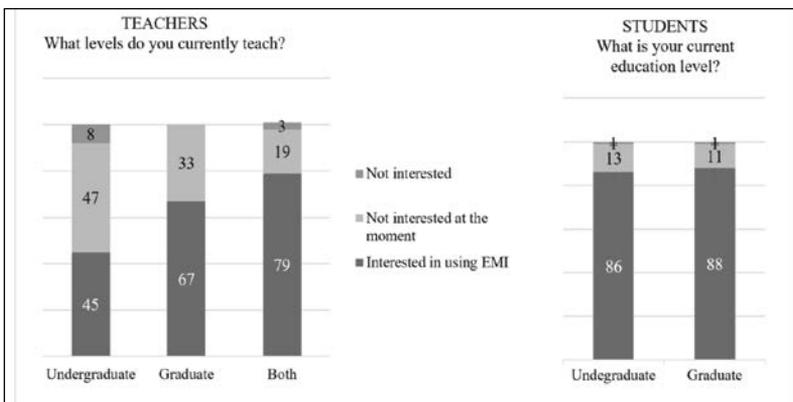Source: Elaborated by the authors

Another interesting result is that all 12 students (100%) of CTISM, the vocational secondary level school that offers courses related to technology and engineering, indicated an interest in EMI, reinforcing the potential of the fields of engineering and technology as loci for pedagogical action related to EMI.

4.2 Academic level of study and interest in EMI

Of the 136 teachers that participated in the study, 55% (*n*=75) teach both at the undergraduate and graduate levels, 36% (*n*=49) teach only at the undergraduate level, and 9% (*n*=12) only at the graduate level. Among these three groups, those who teach at both levels show the highest interest rate in adopting EMI (79%, *n*=59), whereas those of the undergraduate-only level show less interest in EMI (45%, *n*=22) (Figure 3).

This latter rate conflicts with the high interest in EMI indicated by the undergraduate students that answered the questionnaire, who were majority in our sample: 70% (n=473) were undergraduates and 30% (n=206) were graduate students. Among the undergraduate participants, 86% (*n*=405) indicate i006Eterest in enrolling in EMI courses, almost the same rate of postgraduate students: 88% (*n* = 181) (Figure 3).

Figure 3. Interest in EMI according to academic level of study

Source: Elaborated by the authors

4.3 Proficiency in English and interest in EMI

Proficiency in English was included in our questionnaire because, as pointed out earlier, it has raised controversial views in the scenario o EMI adoption, because it has been seen either as a barrier or as a reason for EMI.

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The results in our survey are based on self-declared assessments of English proficiency in four general communicative skills: speaking, listening, writing and reading. Table 3 reveals that teachers see their level of proficiency for all four skills as equal or above intermediate, while the students evaluate their skills as equal or below intermediate.

Table 3. Teachers' and students' self-assessment of four general communicative skills in English (in percentages)

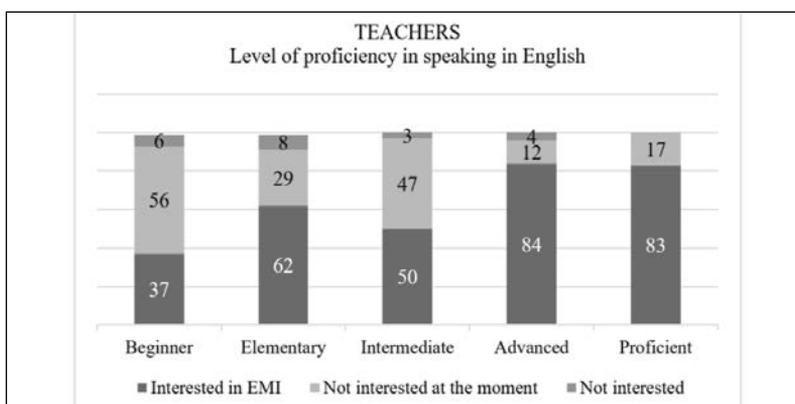|	Speaking		Listening		Writing		Reading	
	T (%)	S (%)	T (%)	S (%)	T (%)	S (%)	T (%)	S (%)
Beginner	12	35	10	26	10	28	2	17
Elementary	18	23	15	23	22	23	8	17
Intermediate	25	20	29	21	28	26	20	26
Advanced	18	13	16	18	14	15	26	22
Proficient	26	6	29	10	26	5	43	15
I don't know	1	3	1	3	1	3	1	2

T: teachers; S: students

Source: Elaborated by the authors

The biggest contrast refers to speaking, because teachers predominantly indicate intermediate to high proficiency (25% intermediate, 18% advanced, 26% proficient), while most students indicate very low speaking proficiency (35% beginner and 23% elementary). Students also say their listening and writing skills are predominantly beginner or elementary. Reading in English, however, is considered the most proficient skill by both groups – 43% of teachers say they are proficient readers of English and 26% of students indicate intermediate level in reading in English.

In order to verify whether these reported low proficiencies would affect interest in EMI, we considered the results about speaking and crossed with rates of interest in EMI (Figures 4 and 5). Among the teachers, there seems to be a relationship between lower speaking proficiency and less immediate interest in EMI, as only 37% of those with self-declared beginner proficiency are interested in EMI, compared to interest rates of 83% to 84% among those with advanced and proficient speaking skills (Figure 4).

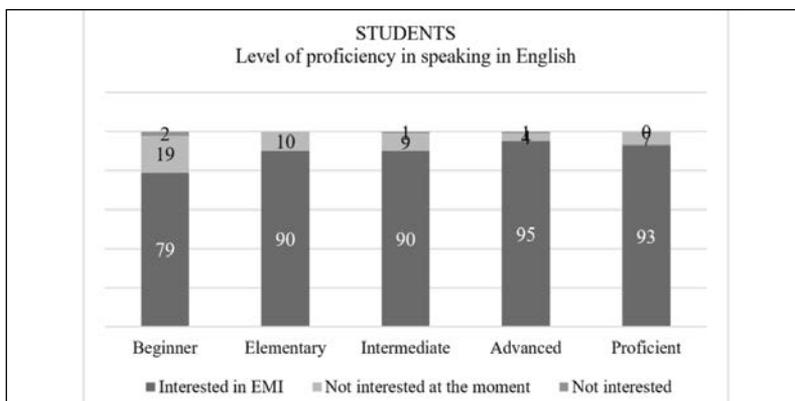**Figure 4. Teachers' interest in EMI and self-declared level of oral proficiency**

TEACHERS
Level of proficiency in speaking in English

	Interested in EMI	Not interested at the moment	Not interested
Beginner	37	56	6
Elementary	62	29	8
Intermediate	50	47	3
Advanced	84	12	4
Proficient	83	17	

Source: Elaborated by the authors

Nonetheless, among the students, low speaking proficiency does not seem to intimidate interest in EMI, as 79% of beginner level and 90% of elementary level students show interest in EMI classes (Figure 5).

Figure 5. Students' interest in EMI and self-declared level of oral proficiency

STUDENTS
Level of proficiency in speaking in English

	Interested in EMI	Not interested at the moment	Not interested
Beginner	79	19	2
Elementary	90	10	
Intermediate	90	9	
Advanced	95	4	
Proficient	93	0	

Source: Elaborated by the authors

4.4 Previous or future academic mobility and interest in EMI

The results show a positive relation between interest in EMI and previous participation in international academic mobility or the desire to do so. Teachers who have been on mobility (54%, *n*=73) tend to show
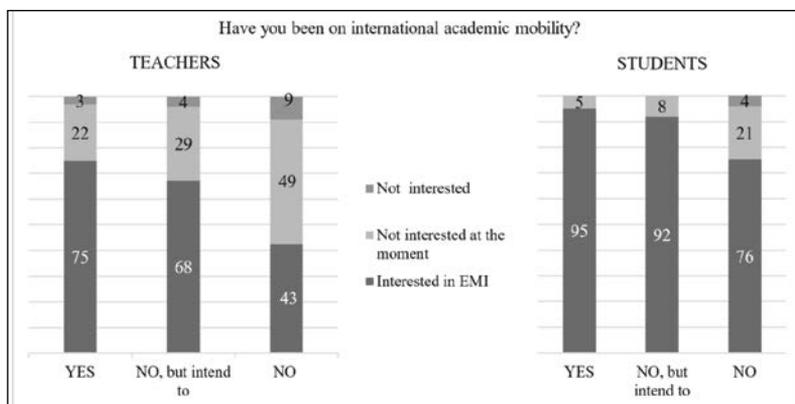
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interest in using EMI (75%, *n*=55). Similarly, those who plan to go abroad (21%, *n*=28) are more predisposed toward using EMI (68%, *n*=19) than those who have never been nor wish to go on academic mobility (26%, *n*=35). The majority (57%, *n*=20) of this latter group is not interested in EMI at the moment (49%, *n*=17) or at all (9%, *n*=3) (Figure 6). Students reveal a similar pattern, with 95% (*n*=92) of interest in EMI courses according to experience or interest in international mobility.

Figure 6. Interest in EMI in relation to international academic mobility

Source: Elaborated by the authors

4.5 The relevance of EMI to internationalization and interest in EMI
Most of the participants see EMI as very important to internationalization (62%, *n*=508) or important (28%, *n*=232) and this pattern is replicated when each group – teachers and students – is considered separately (Table 4).
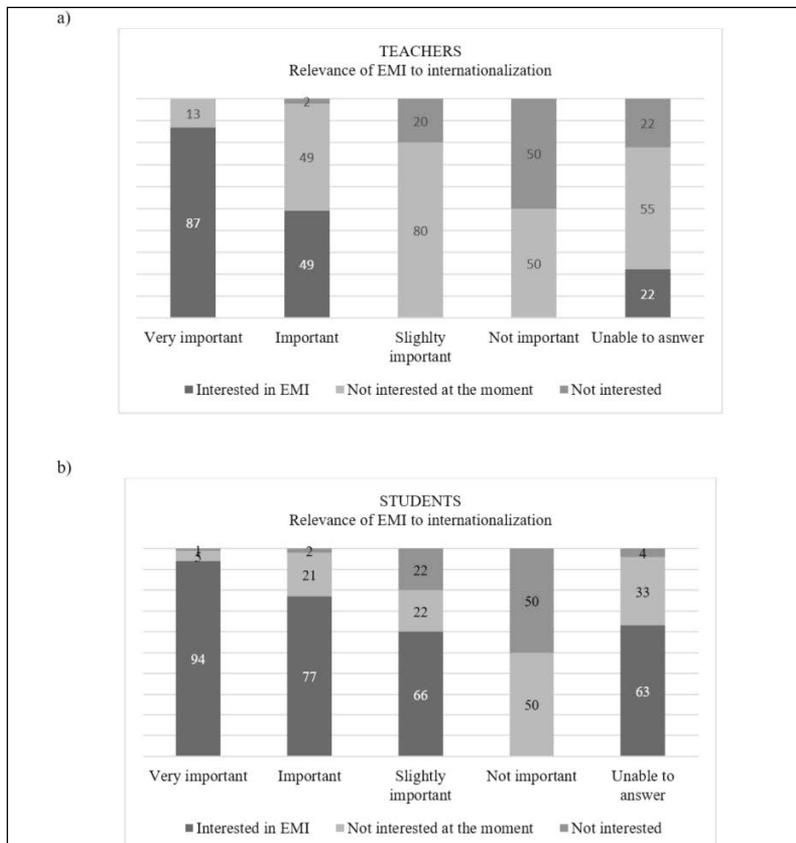
Table 4. Relevance of EMI to internationalization

	Teachers		Students		TOTAL	
	n	%	n	%	n	%
Very important	77	57	431	63	508	62
Important	41	30	191	28	232	28
Slightly important	5	4	9	1	14	2
Not important	4	3	2	0,3	6	1
Unable to answer	9	7	46	7	55	7

Source: Elaborated by the authors

The data also show a direct association of this view with interest in EMI, as 87% (*n*=67) of the teachers who believe EMI is very important to internationalization belong to the group who is interested in EMI (Figure 7a). Among the students, this percentage increases to 94% (*n*=405) (Figure 7b).

Figure 7. Interest in EMI in relation to perceptions about the relevance of EMI to internationalization of a) teachers and b) students

Source: Elaborated by the authors

4.6 The institutionalization of EMI and interest in EMI

The institutionalization of EMI by means of an official policy or regulation is seen positively by 81% (*n*=657) of the participants, which, in details, means 90% (*n*=122) of the teachers and 79% (*n*=535) of the students (Figure 8). Among the teachers, only 5% (*n*=7) indicated it should not be institutionalized, of which six teachers are among those who are not interested in EMI. Another 5% (*n*=7) did not express an
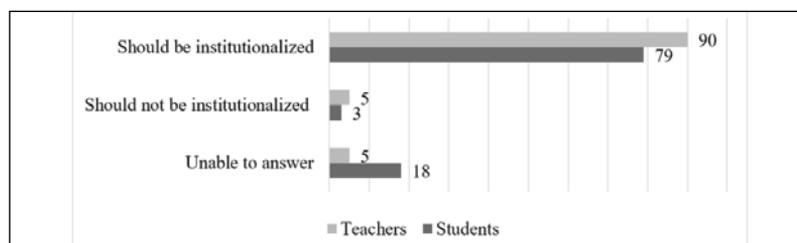
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opinion, with 1% (*n=2*) explicitly adding a comment that they were unable answer due to insufficient familiarity with the topic. Among the students, only 3% (*n=21*) disagreed with the institutionalization, and 18% (*n=123*) indicated they were unable to answer.

Figure 8. Views about the institutionalization of EMI

Source: Elaborated by the authors

In the same question, the answer options proposed reasons and conditions for the institutionalization of EMI and participants could add their own comments in the "Other" answer option. Table 5 shows these findings.

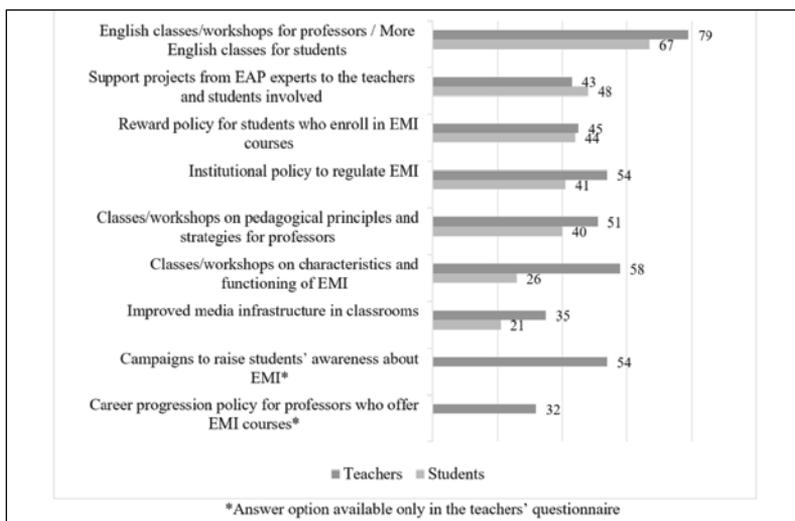**Table 5. Reasons and conditions for the institutionalization of EMI**

		Teachers		Students		TOTAL	
		n	%	n	%	n	%
Reasons to institutionalize EMI	To stimulate the offer of EMI courses	78	57	344	51	422	52
	To encourage the funding of initiatives that offer training and support to EMI practice	51	38	257	38	308	38
	To systematize the offer of EMI courses	60	44	223	33	283	35
	Other: "to prevent students from 'pressing charges' against teachers"/ "to legally protect teachers"	2	1,5	-	-	-	-
Conditions to institutionalize EMI	If it includes teacher certification mechanisms that confirm they have the necessary skills to teach EMI courses	55	40	280	41	335	41
	If rules are flexible and consider the specificities of each disciplinary filed and educational level (undergraduate, graduate)	63	46	257	38	320	39
	If it is rewarded in the students' academic transcript*	-	-	217	32	217	32
	Other: "if English classes are available first so that students can develop their proficiency"	-	-	2	0,3	-	-
	Other: "if English classes are widely available to reach bigger numbers of students in different campuses particularly those of low social/financial backgrounds"	-	-	2	0,3	-	-
	Other: "if teachers have the time and adequate infrastructure"	-	-	1	0,1	-	-
	Other: "if groups are organized based on placement tests"	-	-	1	0,1	-	-
	Other: "if initially it only applies to elective courses to create an EMI learning culture"	-	-	1	0,1	-	-

*Answer option available only in the students' questionnaire

Source: Elaborated by the authors

Still concerning the institutional involvement in the use of EMI, we asked teachers and students to indicate what types of initiatives and specific regulations would be important to motivate and support the implementation of EMI (Figure 9). Both teachers (79%, *n*=107) and students (67%, *n*=458) predominantly highlight the need to increase the provision of English classes; together, this means 69% (*n*=656) of the total participants. The second most important institutional action is also related to language: to develop EAP related projects that unfold alongside EMI experiences, according to 43% (*n*=58) of the teachers and 48% (*n*=328) of the students, meaning 47% (*n*=386) of the participants.

Figure 9. Institutional initiatives and regulations to support the use of EMI

Source: Elaborated by the authors

In the topic about media infrastructure, one teacher commented that it would interesting to have foreign guest lecturers using videoconferencing, but that this possibility is limited by the low number of rooms with videoconferencing technology and staff to give technical support. Another teacher suggested that the pedagogical projects of the degrees should follow international standards to attract international students, that these students should be eligible to scholarships, and the implementation of a double degree policy, because in the absence of non-Portuguese speakers in classes there would be no reason to use EMI.

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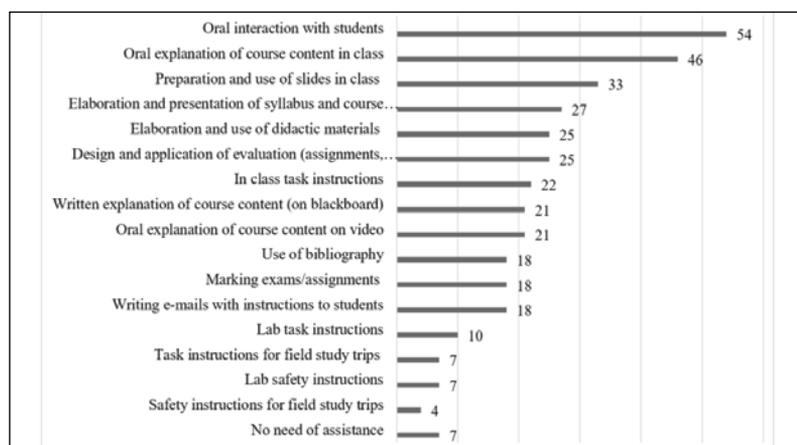*Hendges*

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4.7 Teachers' and students' needs in EMI classes

In one of the final questions in the teachers' questionnaire, we asked them to imagine themselves planning an EMI course and/or using EMI in classroom in order to indicate what situations would present the biggest challenges and needs. We proposed 16 answer options from which more than one could be chosen, as well as space for participants to include other answers. The most challenging classroom-related practices seem to involve a combination of "spontaneous" classroom discourse with oral skills, given that "oral interaction with students" was chosen by 54% (*n*=73) of the teachers and "oral explanation of course content in class" was selected by 46% (*n*=62) (Figure 10). Only 7% (*n*=9) of the teachers indicated they would need no help in teaching in EMI.

Figure 10. Classroom activities that challenge teachers' use of EMI

Source: Elaborated by the authors

We then decided to examine these data in intersection with the data about the self-declared level of oral proficiency in English (Table 3), which 44% (*n*=60) of the teachers classified as advanced or proficient, to see what classroom activities would be most demanding for this particular group. We found that even among these teachers the two most challenging EMI classroom situations are related to oral use of English, because "oral interaction with students" and "oral explanation of course content in class" were each chosen by 42% (*n*=25) of them (Table 6). However, within these teachers a bigger percentage – 12% (*n*=7) – expressed they would not need assistance to use EMI in class.

Table 6. Challenges to use EMI in classes indicated by teachers who declared advanced and proficient oral skills in English

Teachers' potential challenges to use EMI in classes	Teachers level of proficiency in oral skills		TOTAL	
	Advanced	Proficient	n	%
Oral interaction with students	9	16	25	42
Oral explanation of course content in class	10	15	25	42
Elaboration and presentation of syllabus and course schedule	9	6	15	25
Elaboration and use of didactic materials	5	10	15	25
Preparation and use of slides in class	5	7	12	20
Marking exams/assignments	4	7	11	18
Design and application of evaluation (assignments, tests, exams)	3	7	10	17
Written explanation of course content (on blackboard)	3	3	6	10
Use of bibliography	1	4	5	8
Writing e-mails with instructions to students	2	3	5	8
In class task instructions	1	2	3	5
Oral explanation of course content on video	1	2	3	5
Lab task instructions	-	1	1	2
Task instructions for field study trips	-	1	1	2
Safety instructions for field study trips	1	-	1	2
No need of assistance	2	5	7	12

Source: Elaborated by the authors

To explore needs of students in EMI classes, we considered the 19 (3%) participants who reported they had previously attended courses conducted in English. Four of them had the experience abroad, one in high school, two in undergraduate mobility and one in Post-doctorate mobility. Because our study addresses the implementation of EMI in the national context (in a university where English is not the primary language of instruction), we focused on the remaining 15 students and potential difficulties they faced in their EMI experiences in the Brazilian context. We found that their major difficulties were their lack of English proficiency and lack of confidence to speak (each indicated by 47%, *n*=7, of the 15 students) (Table 7).

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Table 7. Challenges faced by students enrolled in EMI and respective level of proficiency in oral skills

Students' challenges in EMI classes	Students level of proficiency in oral skills					TOTAL	
	Beginner	Basic	Intermediate	Advanced	Don't know	n	%
My low proficiency	2	3	1		1	7	47
My shyness to interact orally	3	3			1	7	47
Lack of support in the course or in my major to help with my difficulties with English	1	1				2	13
Lack of a assistance from an English teacher/tutor to help me with my difficulties	1	1				2	13
Teacher's pace (spoke English too quickly)			2			2	13
Lack of a course monitor to help me with difficulties with course content		1				1	7
Teacher's accent (spoke an English to which I am not used)	1					1	7
The teacher's low proficiency			1			1	7
I faced no difficulties.		2	1	1		4	27

Source: Elaborated by the authors

In terms of proficiency in oral skills, 10 of the 15 students classified their oral proficiency as beginner (*n*=5) or basic (*n*=5), which may help to explain the major difficulties of the group, as six of these 10 students chose the option "my low proficiency" as a hindrance. Nevertheless, two of the five students that classified their proficiency as basic said they had no difficulties in the EMI classes, an interesting result for debates about how much proficiency is necessary for a successful EMI experience.

Another puzzle that seems to arise from these data is what driving forces led students who assess their proficiency as low – and who actually report having faced difficulties due to low proficiency – to enroll in EMI courses. As shown in Table 8, while three of them (50%) indicated lack of alternative (due to the mandatory nature of the course) as reason, the other three (50%) reported the desire to improve their proficiency and/or the relevance of English in their academic fields (which are, interestingly, social sciences and humanities and education, two areas that are not as typically associated with English as are hard sciences or health sciences).

Table 8. Reasons why students who faced difficulties due to low proficiency enrolled in EMI courses

#	Level of proficiency	Type of course	Reason(s) why enrolled in EMI course
1	Beginner	Mandatory	• There was no other option available
2	Beginner	Mandatory	• There was no other option available
3	Basic	Elective	• To improve my English • Because English is essential in my disciplinary field
4	Basic	Don't remember	• To improve my English
5	Basic	Mandatory and elective	• Because English is essential in my disciplinary field
6	Unable to evaluate	Mandatory and elective	• There was no other option available • To improve my English

Source: Elaborated by the authors

Views of teachers and students about EMI at a Brazilian federal university

As cited in the Introduction, not rarely is implementation of EMI advocated as an opportunity to improve English language proficiency, but according to Macaro et al. (2018, p. 64), "there is a dearth of research, using objective tests rather than self-report, on the impact of EMI on improving students' English proficiency".

5. Implications of the findings for EMI at UFSM

At the beginning of our survey about interest and needs of teachers and students about EMI at UFSM, we were expecting more participation. The 815 respondents represent only a small fraction (7%) of the teacher and student communities of UFSM and, therefore, it would be premature to make generalizations that are applicable to the university as a whole, especially if we speculate that, inter alia, low familiarity with the topic or lack of interest in EMI were important factor for non-participation. Nonetheless, we see our survey as an important and necessary initial step to understand the complexities of the local context in using EMI and to inform related introductory institutional action in the form of language policy, guidelines, and English language support. Or results revealed a number of patterns in the perspectives of teachers and students about EMI, which led to the following list of considerations and suggestions:

1) the high interest in EMI (83%) among the participants (in both groups) suggests a receptive environment for the implementation of EMI at UFSM;

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2) some areas – rural sciences, technology and engineering, hard sciences, biological sciences – are more fertile ground for EMI than others;

3) EMI support actions should give all three off-center campuses the same priority of the main campus;

4) in spite of the national tendency to use EMI predominantly in graduate courses, the undergraduate students in our sample show as much interest in EMI as the graduate students, suggesting that a growth in the offer of undergraduate EMI courses may be welcomed;

5) in general, teachers declare higher proficiency in English than students, the language gap is significantly bigger in relation to speaking, listening and writing in English, but even beginners and basic users of English show interest in EMI. This may be linked to the shared view (including some students in our sample) of EMI as an opportunity to improve language proficiency, in spite of the insufficient evidence in the literature about this impact (MACARO et al., 2018);

6) in both groups, higher interest in EMI is related to international experience either via academic mobility or research groups who maintain international cooperation agreements;

7) 90% of the respondents see EMI as a very important or important strategy to internationalize UFSM, and this rate is directly related to those participants interested in teaching or studying in EMI;

8) there is a predominantly positive attitude towards the institutionalization of EMI by means of a policy, because it would acknowledge EMI and an official modality, which in turn would increase the offer of EMI courses, because teachers would feel protected, and authorize funding for projects and actions to support EMI;

9) students show a tendency toward a *progressive* implementation of EMI: English preparation courses, elective EMI courses, and then mandatory classes as part of a process of institutionalization of EMI at UFSM;

10) an EMI language policy at UFSM should address the following points:
   • teacher certification mechanisms that confirm they have the necessary skills to teach EMI courses
   • criteria for career progression for teachers due to courses taught in EMI

- flexible rules that consider the specificities of each disciplinary filed and educational level (undergraduate, graduate)
- a reward system for students' that is registered in the academic transcript*
- wide availability of English language classes to prepare students for EMI classes, particularly those of low social/ financial backgrounds
- adequate media infrastructure
- teacher's time availability
- organization of groups based on placement tests
- flexible rules that consider EMI in elective courses first to create an EMI learning culture
- in parallel to an EMI mandatory course, offer a course delivered in Portuguese.

11) interest in EMI is both groups is directly related to a demand for more actions (classes, tutoring, workshops) that focus on language learning, for teachers and for students, which indicates that both groups acknowledge the importance of language specialists to participate in the implementation of EMI;

12) actions (classes, tutoring) for university teachers that focus on the English language should focus on the following classroom literacies:
- oral interaction with students
- oral explanation of course content in class
- preparation and use of slides in class
- elaboration and presentation of syllabus and course schedule
- elaboration and use of didactic materials
- design and application of evaluation (assignments, tests, exams)
- in class task instructions
- written explanation of course content (on blackboard)
- oral explanation of course content on video

13) actions for university students that focus on the English language should consider pre-EMI courses and tutoring focusing on individual difficulties of students.

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This synthesis has clear implications for our English teaching degree at UFSM as well as for academic teacher education programs developed in Labler and Idiomas sem Fronteiras, which has been a challenge. We hope it also useful for other institutions where EMI in the horizon because we see that Brazilian universities in general still lack clear policies towards EMI practices (FREITAS; DELGADO, 2018).

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