



# Student Learning Online in a Second Language

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# Student Learning Online in a Second Language:

Accounting for student voices

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**Abstract:** During the Covid-19 pandemic, many courses were forced to shift from holding physical, in-person meetings to conducting classes online via distance. For students whose courses were being taught via English as a medium of instruction (EMI), this shift to online teaching and learning added another potential barrier to their educational experience. Not only were they learning content through a second or additional language, but they were doing so in a new and likely unfamiliar setting: Zoom or a similar interface. With teachers and students needing to grapple with this additional technological layer, the present study investigated EMI student experiences with a focus on similarities and differences between in-person and digital contexts. Semi-structured interviews with 12 university students were held in order to provide space for them to articulate their views on the various aspects that the combination of EMI and distance learning involved. Sections of the interview probed students' perceptions of English skill levels (e.g., speaking, listening, etc.) in EMI and student experiences in both in-person and distance EMI contexts.

Key words: English medium instruction (EMI), distance learning, academic strategies

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## Introduction

English medium instruction (EMI) has been a growing phenomenon around the world. These programs, where English is used as the language of teaching and learning among participants whose native language is not English, have become common on university campuses in many contexts (e.g., Lasagabaster & Doiz, 2021). In EMI, English is used to teach content in a variety of non-linguistic subjects. Learning English is not the purpose of the class; instead, students are presumed to have sufficient English language abilities to participate in and learn through English. According to Forsberg's (2018) report in *Universitetsläraren*, nearly 30% of college and university courses in Sweden were conducted in English at that time, with a projection that the number would reach 50% in the near future. Per Malmstörn and Pecorari's (2022) report, a considerable percentage of courses at both the master and bachelor levels at Swedish universities involve English, either as a spoken language in the classroom, or as a reading language via assigned course literature, or both. The trend towards more EMI courses is common to other parts of Scandinavia as well (e.g., Airey, et. al., 2017). As an example, with more than 75 study programs being offered by Stockholm University where EMI is used, the quality and consistency of those courses with regards to teacher delivery and student learning are areas in need of exploration.

Learning content in a second language (L2) can be extremely challenging, and students and teachers can face a range of obstacles when operating in EMI courses. For students, they can be largely unprepared for the amounts of reading they are expected to do and the genres and text types that they encounter at the tertiary level (Eriksson, 2022). These reading challenges occur even though students can read at their own pace, re-read as necessary, consult dictionaries, and avail themselves of translation software. Once in class, in the company of peers and teachers, cognitive and social pressures can impact learning in an L2 to a greater extent than if they were studying the same topic in their first language (L1). Students have reported difficulties in EMI courses in relation to understanding topic-specific and technical vocabulary (Blackwel, 2017), their teacher's rate of speech (Ali, 2020), teacher accents (Bolton & Kuteeva, 2012), and high rates of speech (Blackwel, 2017). All of these issues relate to L2 listening proficiency, which listening scholars point to as the most difficult language skill to develop in an additional language (e.g., Goh, 2000; Field, 2008). Inabilities to comprehend and keep pace with incoming input and learning expectations in EMI can lead to negative student experiences and increased levels of stress (Shadiev & Huang, 2022). These negative emotions can impair the learning process.

Teachers face their own challenges when it comes to EMI. Some may be forced to teach in English even if they prefer to teach in their L1 (Yeh, 2012). Often times, university goals of

internationalization, mobility, and accessibility prompt broader educational policies that courses should be offered in English, regardless of whether individual teachers may view this as a wise choice. Many EMI teachers, content specialists in their own right, lack sufficient background in L2 acquisition and development. They may not be aware that their linguistic, pragmatic, and syntactic choices, along with auditory traits (e.g., pitch, rate of speech, volume), can have a strong effect on student comprehension (e.g., Björkman, 2010; Flowerdew & Miller, 1996; Siegel, 2020). In interview and survey studies, teachers have reported difficulties in expressing their ideas in English spontaneously, responding to student questions, encourage participation among hesitate L2 English user students, and simplifying complex content and issues to an English level adequate for their students to understand (Airey & Linder, 2006; Ozer, 2020). To sum up, learning and teaching in EMI environments is a complex issue, one that can be incredibly demanding on students and instructors alike.

If studying in an L2 affects teaching and learning, then doing so via distance and technology arguably adds an additional layer of complexity. When teaching was moved online due to the Covid-19 pandemic, EMI courses continued to be conducted but at a distance, meaning that many of the affordances teachers and students might take advantage of, such as, eye contact, body language, and gestures, were largely reduced if not totally unavailable. Regardless of the language of instruction (e.g., Swedish or L2 English), students around Sweden generally experienced lower levels of wellbeing during the period of online study (Wackenhut & Boyd Gillette, 2022). They reported feeling more stress than when they studied in a physical classroom and that they were negatively affected by a lack of social contact with peers and teachers. There were reduced non-verbal cues in online lessons and teachers reported students' inability to concentrate. Students also reported waning motivation and concentration, particularly during longer sessions with limited or no breaks (Bolandar Laksov & Reierstam, 2022). At the same time, some students indicated their preference for online instruction, citing efficiency and reduced stress (Bolandar Laksov & Reierstam, 2022).

To summarize, EMI instruction is established and growing in Sweden. While much EMI research has been conducted in physical, face-to-face classroom environments, few studies have investigated EMI in other formats, namely, synchronous online instruction where issues of time, pressure, comprehension, learning, multimodality, computer skills, socialization, and learning all come into play. Given the new perspectives on education in general and online learning specifically stimulated by the shift to distance learning, online EMI deserves to be examined to determine whether and to what extent this combination (language and technology) affects learning. In other words, research in each respective field provides information to educators, but the two fields have rarely been combined as an object of research: the present study aims to address that need.

## Aim

The present project investigated student experiences of taking EMI courses via distance education in order to better understand how the combination of EMI and online learning may have affected students' education. Further, the study aimed to articulate what challenges students faced in this unique situation and to suggest strategies for teachers and students to consider in order to address those obstacles. The study addressed the following research questions:

1. What are student perspectives related to discrete English skills in in-person and online EMI formats?
2. What differences do students express when comparing in-person to online EMI?
3. What emotions do students express when talking about in-person and online EMI?
4. What challenges do students face in online EMI in comparison to in-person EMI?

## Methods

Interview participants were recruited from Stockholm University via flyers and announcements in courses taught via EMI. Some teachers helped in recruitment by posting announcements on their Athena sites. The only requirements for participation were that the person was a student at Stockholm University who was either taking or had recently taken an EMI course. In total, 11 students completed interviews via Zoom after first giving written consent. Participants had the option of being interviewed in Swedish or English. Two individual interviews were conducted in Swedish and the rest were held in English. The interviews generated 315 minutes of recorded discussion, which was later transcribed. Participants received an electronic gift card as compensation. Due to data saturation and space concerns, extracts from five interviews are presented in this report.

## Results and Discussion

Based on the interview findings, the following sections outline three main categories of student comments in relation to EMI: a) English language skills (i.e., listening, speaking, and reading), b) emotions, and c) online EMI.

## English language skills in EMI

Various perspectives related to English language proficiency skills were expressed by interviewees. Repeated comments across the different interviews revealed a consciousness on the students' part in relation to their own, their classmates', and their teachers' English language proficiency.

In relation to spoken production, Student A commented that despite English being her L2, she felt comfortable in an environment where all other members had the same shared L2. This situation gave her more confidence to speak up in class, even if her production was not perfect: "I don't have English as a mother tongue so I feel more comfortable to speak because I am not afraid to make a fool of myself. At the same time, I know that I would never judge another who says something strange" (translated from Swedish). Student B also commented on a sense of nervousness early on in EMI courses in relation to expectations that students produce spoken English, since they are so used to speaking with each other in Swedish. Moreover, Student B described a cognitive overload when dealing with the content and multiple interacting language skills: "if I want to speak, then it becomes a very big challenge for me. I have to process many things, and sometimes I get overloaded". This observation aligns with research done by Airey and Linder (2006), who found that Swedish students' oral participation in class was significantly less when content courses were taught in English in comparison to when they were taught in Swedish.

Related to proficiency in English skills, Student C noted the multilingual make up of classes and mentioned that the use of English may favor some and disadvantage others: "some people would be from England and would have sort of an advantage". Student B emphasized the unstable nature of L2 ability, stating that she has noticed a reduction in her English listening comprehension skills and spoken fluency after returning to Sweden from a lengthy period studying overseas:

I lived in England for one year and at that time, I really noticed how I had no problem communicating in English at all. I got lots of compliments for my English ability and then when I came back to Sweden...it was many years ago. Now, when I speak English, I notice that my English ability has become worse and that is because I don't use English every day in the same ways [as I did in England]. I noticed then that I needed to work a little harder on it [in these types of classes]. (Student B, translation)

In addition to discussing spoken production, the interviewees mentioned receptive language skills, namely, listening and reading. Student B commented that listening to a lecture in English on a topic sometimes generates only a vague understanding of the content, whereas reading about the same content in L1 Swedish provides more concrete and tangible understanding. This observation relates not only to distinctions in learning between material delivered in the L1 as opposed to the L2 but also suggests that the ephemeral nature of listening, particularly in an L2, may need to be supplemented by permanent, visual information that students can read at their own pace. Student D also commented on some self-assessed variation from one English skill to another: “when it comes to listening and taking notes, I don’t think about the fact that the class is all in English, but when it comes to speaking, I’m definitely conscious that I’m speaking a different language”. Student E is also comfortable and confident when listening to lectures and understanding a majority of the content, but “as soon as it goes to producing the language, it gets too hard for me....if I want to produce sentences”, the task becomes much more challenging.

Also related to listening comprehension, Student C observed that teachers with English as their L1 may overlook aspects of their spoken delivery, such as rate of speech, use (or not) of pausing, dialect features, and making sure to stay in a vocabulary range that is shared by the L2 English user student group. She concludes that: “maybe you [as a teacher] can identify more with the person who’s like, who doesn’t have [English] as a first language either”. This perspective acknowledges the relation between a teacher’s spoken production and students’ listening abilities.

Both sides of this relationship share some responsibility: teachers should consider the listening proficiencies of their students and adapt output as necessary (e.g., with clear signposting, facilitative use of multimodality, etc.), and students should ensure they have sufficient L2 skills to succeed in EMI (e.g., listening, notetaking) as well as general academic skills such as maintaining attention and preparing for class. While teacher code-switching (i.e., translating some key words or portions of talk from English to Swedish) might be an option in some contexts and classes, as noted by Student D, given the multicultural and multilingual backgrounds of student groups in Swedish universities, there is no guarantee that such a strategy would work equally well for all students or teachers. In addition, the notion of comprehending content in an L2 while also being expected to produce relevant speech on the

topic can lead to cognitive overload (e.g., Sweller, 2011), a perspective teachers may wish to keep in mind.

When asked about whether EMI lecturers tend to consider the fact that many students in EMI courses are reading in English as an L2 when choosing and assigning course literature, Student C pointed out distinctions between teachers who use English as an L1 and an L2; “it depends on sort of the background of the lecturer themselves...if they are from an English background, they maybe think less about [the demands of reading in L2 English], but maybe if they’re from a non-English background, they try to choose papers that are [more accessible to L2 users].” Recent work by Eriksson (2023) on teacher expectations and student experiences related to assigned reading in first-year university EMI courses illustrates the challenges that students often face in terms of time, effort, and stress. While Eriksson’s work presumably applies to reading assigned for outside of class time, L2 reading skills are also relevant in in-person and online EMI, where students are expected to read text on slides. Since teachers control the pace of delivery and the time that each slide is shown, students lack the same control in reading in class that they may have outside of class.

Some comments related to differences between the typical lecture and seminar formats. Student C commented that, based on their experience in EMI lectures, teachers do not regularly adapt their language use and delivery to the levels of the particular groups that they might be addressing. In seminars, however, where there is more two-way interaction between students and teachers, teachers are able to better ascertain students’ English abilities and can therefore make more accommodations, possibly by slowing speech, adding comprehension checks, and attending to body language and facial expressions.

Student D also commented that in lectures, one can become accustomed to a lecturer’s accent and manner of speaking; in contrast, during seminars, one must constantly adjust to the various accents of multiple members of the class, which can make listening more challenging: “when I’m listening to other students whose first language is not English, then accent plays a role. And yes, it’s definitely harder.” These comments relate to theoretical notion of accent familiarity (Ockey & French, 2016), which attempts to explain how the act of listening to an individual becomes easier the more we listen to



them. In a lecture, the same speaker typically produces most of the output. Students often listen to the same lecturer multiple times for extended periods during a course. In seminars, many different speakers likely contribute with shorter bursts of output, and therefore, the ear may not have sufficient time to become comfortable to all of the accents present.

## **Emotions in EMI**

Analysis of student statements included investigating in what ways emotive language was used in relation to EMI experiences. Given that students in EMI courses may be uncertain as to the expectations related to their L2 English abilities, a sense of initial nervousness was frequently reported. Other emotions that can be identified in the interview transcripts included reluctance to participate as well as pride and a sense of accomplishment upon completion of certain tasks and courses.

Nervousness in relation to courses conducted in English was common among the participants. Student A recalled their first in-person university course held in English, stating that “I was not really prepared [in terms of English ability] and was a little nervous about how it would go” (translation). Student B reported that she actively avoided applying to programs that were only held in English, noting that there are much higher expectations and less support for L2 English at university than at compulsory school. After an adjustment period, however, her studies in English became easier and things went better than she had originally expected. To summarize her views, she stated: “It is always a little scary to study something at university level in a language which you have not mastered 100%” (translation). An initial sense of nervousness and trepidation tends to reduce as students acclimate to the context and expectations.

Communicating and producing L2 English, particularly via zoom, was also mentioned as a source of stress. When asked about her preference for in-person or distance EMI, Student C stated: “I feel much more awkward to speak up online and to know that everyone has to listen”. This reluctance to speak in EMI settings has previously been established by Airey and Linder (2006), who observed Swedish students participating less in English versions of courses than in their Swedish equivalents. On top of working in an additional language, distance education presents an additional barrier to communication

and learning. Student D pointed out that student interactions with teachers online are less natural than in person: “it can be more awkward, interrupting a professor online. Because sometimes, if we are sharing the screen, you are not even seeing their faces”. This point was echoed by Student E, who often asked questions during online EMI via the chat function, but when teachers failed to recognize a question, “this question remains unsolved for me.” Then, due to hesitation and personality, “I’m shy to email them and ask...but when I’m on campus, I can ask the teacher face-to-face.” This type of negative emotion and pressure linked to L2 production can cause learning inhibitions:

“If I speak a language that I’m not familiar with, then automatically feel more of a pressure to meet certain expectations or to have the ability to speak in that language if I’m in an environment that requires use of that language, and then making a mistake or not understanding would cause even more pressure, further causing either miscommunication or that I would be more nervous, feel maybe ashamed, or, yeah just, I think negative emotions would be involved, which might hinder me from further communicating and asking for clarification...” (Student E)

Per Student E’s comment above, there can be a confounding effect in relation to L2 proficiency and learning, where being pressed to communicate and express oneself in a language one is not comfortable in can raise affective barriers, thereby preventing or at least hindering the learning experience.

As the negative feelings of nervousness decrease, students can feel a sense of accomplishment. Student B noted that when she “finished reading the first text in English, I felt quite proud of myself that I had managed to do it” (translation). There can also be some solidarity in noticing that other students in the group may not be fully proficient English users and may also have their own insecurities. Such an observation can provide comfort for students. Based on the content of this data set, however, these positive emotions were less resonant than more negative emotions, particularly nervousness.

Because academic emotions can be closely linked with issues of language, identity, and course expectations, teachers should consider how they can limit the potential negative impacts while at the same time creating opportunities for positive emotions to manifest. Pekrun et al. (2002) list the following academic emotions: enjoyment, hope, pride, relief, anger, anxiety, hopelessness, shame, and boredom. Since it seems that students in EMI may initially gravitate toward the more negative emotions on this list, teachers may expect this and include small, achievable tasks early in courses that involve both the content knowledge and English in order to help students realize what they *can* do and

experience initial successes. Doing so in online EMI could prove particularly beneficial since the student may need to deal with a two barriers simultaneously: one related to L2 use, the other the online format. The findings from this study that stress and anxiety can come from both receptive (e.g., listening) and productive (e.g., speaking) tasks in English resonate with findings from Shadiev and Huang (2022), who found that inability to comprehend and produce language at sophisticated academic levels led to stress and anxiety. According to their study, negative student emotions impaired learning processes.

### **On EMI in online formats**

Part of the interview protocol asked students to reflect on their experiences of EMI online in comparison to in-person EMI. Consistent themes evident in relation to EMI online include increased distractions, more difficulty concentrating, more challenging to reorient oneself, and a higher pace of instruction than these students experienced during in-person EMI. Disconnect from teachers and fellow students was also emphasized as a factor negatively contributing to EMI online.

The most consistent point mentioned by the interviewees was distraction. A majority felt that it was easier to be distracted during online courses than in-person. Student A stated that “it has absolutely been more difficult, I think, to concentrate and maintain focus via Zoom because there are so many distractions around me...it is easy to zone out more online than in a classroom when the language of instruction is English” (translation). The combination of zoom and English made the experience more challenging for Student A: “it is easier for me to be distracted online and then automatically, it got worse when the instruction was in English and online” (translation). These distractions can come from both the computer itself (e.g., multitasking online, trying to learn different Zoom function) as well as in the physical environment: “When you are home and you live with someone or have a cat, whatever, then you can lose focus more easily especially if you don’t have English as a first language. Then it becomes a little more difficult to keep up” (Student B, translation). Student C also acknowledged difficulties in staying focused but was unsure if it was “really a thing with English teaching or if it is just [online instruction] in general.” As this statement indicates, precisely which aspect might facilitate or hinder concentration is unclear and more closely-targeted research is needed.

Online interaction, and sometimes lack thereof, was also a theme expressed by the participants. Student B commented that the lack of teachers' direct questions in the zoom format made it easier to lose concentration, which in itself was more difficult because of listening in the L2; for example, when a teacher has opportunities to ask direct questions such as "[Name], what do you think about this?", that possibility helps hold student attention. Student B points out that such direct questioning to individuals seldom happens in online EMI but, in her experience, does in in-person EMI, which heightens student attention. While distance education programs like Zoom offer chat box functions, those need to be monitored and used consistently for interaction to occur. Student E points out that "when the classes are online, I ask the teacher but she or he doesn't answer me in the chat box. Then, again, this question remains unresolved for me."

Difficulty of adapting and listening to multiple accents was mentioned by Student D as being more challenging in online EMI than in in-person seminars: "there is a difficulty in understanding other people on Zoom, when we are all speaking a language that is not our first language. So, [problems understanding others' English speech] is multiplied when you are online". Student D further observed that it is easier to both read body language and give non-verbal forms of communication in-person than online, where one's gestures and facial expressions are more visible. This observation was reiterated by Student E: "there are facial expressions, there is body movement, there is tone, although that might be also understood online, but technology isn't always a guarantee, and so it's easier sometimes to miss things online than in-person." Given that in EMI the instruction and relevant interactions are often happening in a second or additional language, certain strategies (e.g., communication, repair, confirmation, socio-affective) that can improve understanding and learning are crucial for both students and teachers; however, online formats as they are currently available may not allow for such strategies to be used in the same ways as in face-to-face instruction.

The online format, for unspecified reasons, seemed to increase the pace at which the teacher taught: "it was very, very much information in a short time, a super fast pace, and it was online. It felt very overwhelming precisely because it was in English and the slides were loaded with information and sometimes messy" (Student A, translated from Swedish). Coupled with the possibility of a faster rate of delivery of material is the challenge of reorienting oneself if attention has been lost. Student D

highlights the struggles of trying to refocus attention and catch up in the online format: “I feel like it’s easier to lose parts of the lectures online...In class, it’s easier to just ask, could you go back one slide? Or if I can just ask someone else that is physically next to me. Usually there is no interaction [online], I mean, from my experience.” Here, Student D mentions two strategies that students in classrooms can use to reorient themselves: a) asking the teacher and b) asking peers. Neither of these seem to be options commonly available to students in online EMI, meaning that they may be missing some content or not learning it as well as they might in in-person formats.

Several interviewees described the disconnect that they experienced in online instruction. This disconnect existed both between students themselves and between students and the teacher. Student C described the situation thusly: “...you can’t really connect so well to what the others are doing like then if you message them or call them after or something, it’s not the same thing as being in a classroom and sort of experiencing things together. And even a teacher, you can’t really get to know them so well...” This disconnect can be made tangible in distance teaching, particularly when students do not activate their cameras: “in many classes, we can turn off the camera...but in our campus classes, we have to be there, we have to pay attention to the teacher. Because he or she might ask us some question and we have to have our whole attention with him or her” (Student E). This comment echoes those related to struggles maintaining attention mentioned earlier, here linked to online camera use and visibility. Being visible and accountable would seem to both increase attention and decrease feelings of disconnect with in-class instruction providing the most viable solution to these issues.

## **Final thoughts**

The purpose of this project was to provide space for student voices related to online EMI education, with a view that their input can help improve future teaching. Based on the accounts collected here, one can draw a tentative conclusion that if students are more easily distracted via distance instruction, because of digital and/or online distractions, the additional cognitive load of studying in a second or additional language would prove to be an additional barrier that should be accounted for in teaching and learning. Teachers and students need to be aware of the potential and complicated barriers that can obstruct learning in the online EMI format as well as supportive steps that can be taken to facilitate

education in this specific type of setting. The possible negative effects on online instruction are certainly not limited to only EMI but apply to tuition in the L1 as well (Bolander Laksov & Reierstam, 2022). Teachers who plan and deliver online education are encouraged to consider the factors raised here, particularly when their student groups may have varying L2 English abilities.

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