



GITAL PRACTICES IN

DIGITAL PRACTICES IN AND OUT OF THE CLIL CLASSROOM: AUSTRIA

A Report by CLILNetLE Working Group 4

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NOTE. This country report presents results from the Austrian dataset, collected as part of two pan-European surveys administered by WG4 of the COST Action CLILNetLE. For the main report see <u>Digital Practices in and out of the CLIL Classroom: A pan-European survey of students and teachers</u>.

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1. Digital Literacies Student Survey (DLSS): Austria

1.1. Introduction

The survey was undertaken in four schools in Vienna in April and May 2024. Two schools cater for lower secondary learners, grades 5 to 8, and two for upper secondary level, grades 9 to 13. The upper secondary schools fall into the category of BHS (= Vocational Upper Secondary Colleges). Access to the schools was made possible either through the head of school or through specific teachers. These contact people allowed us to recruit learners in 5 lower secondary classes, and 4 upper secondary classes of about 25 students each. The main challenge was to get parental consent, which was luckily not necessary in all schools, though.

While CLIL is mandatory in Austria at the primary level, there are no comprehensive policies at the secondary level, but there are some upper secondary school types, such as the BHS (i.e., vocationally-oriented upper-secondary level colleges), where some CLIL has to take place. Even if not compulsory, some of the lower secondary and non-BHS upper secondary schools will offer some CLIL as well. Overall, CLIL thus comes in very different realisations at all school levels (Bauer-Marschallinger et al. 2023).

As Austrian teachers have dual qualifications, CLIL teachers can also be language teachers, but don't have to be. There are no language proficiency requirements and usually teachers volunteer for CLIL teaching. Depending on schools, CLIL can be implemented fairly ad-hoc, or it can be structured systematically (Gülle & Nikula 2024, 49-52).

1.2. Summary of main findings

- Basic description of the 254 participants: more female than male participants in school years 3-11, in urban and suburban regions in Austria, with about 50% coming from a multilingual background.
- On average CLIL lessons were reported to be balanced regarding the use of the CLIL language and the main language of schooling. The same was true for the main focus on language and/or content it seemed to be largely balanced. However, the variety of answers was high.
- Students believed that video sharing, e-book readers, online video streaming, and social media helped the most with their CLIL lessons
- Similar devices were used extramurally and in school (mobile phone, laptop, desktop, tablet). However, the variety of devices used decreased in the school context.
- Students reported more challenges with digital technology in school than out of school, as they felt restricted by school policy, teachers, and the quality of accessing the internet in school, but did not seem to have these restrictions out of school.



1.3. Participant background

The Austrian students in this study range in their **ages** from 13 to 20, with the largest group being 18 and 19, followed by 14 year olds.



Regarding their **gender**, as visible in the pie chart, most participants were female (N=164), followed by 79 male students, 7 'other', and 4 'prefer not to say'.



Of the 193 students who revealed their **parents' education level**, the biggest share (N=80) has upper secondary level education, followed by those with a bachelor's degree (N=42), a master's degree (N=28), lower secondary education (N=26), and a PhD (N=11). There were only 2 students whose parents' highest qualification was primary education.





As the following chart reveals, 124 students indicated that they had one **home language**, while 81 gave two, 42 three, and 6 four or more languages used in their homes. This means that roughly 50% of the students came from homes that were bi/multilingual.



Of the 254 students, 214 gave German as their **main language of schooling**, 15 indicated English for that function. The remaining 25 answers were either missing or spread over many other languages (see table below). Seeing that the schools where the data were collected were all typical Viennese schools, it is unlikely that any of these languages are actual languages of schooling. It is more likely that the students misunderstood the question.



Q2.8 Main school language	Frequency	Percent	Valid Percent	Cumulative Percent
Basque	1	0.394	0.398	0.398
Bulgarian	1	0.394	0.398	0.797
Croatian	1	0.394	0.398	1.195
Danish	1	0.394	0.398	1.594
English	15	5.906	5.976	7.570
Estonian	1	0.394	0.398	7.968
Finnish	2	0.787	0.797	8.765
French	2	0.787	0.797	9.562
German	214	84.252	85.259	94.821
Greek	1	0.394	0.398	95.219
Italian	1	0.394	0.398	95.618
Romanian	2	0.787	0.797	96.414
Russian	1	0.394	0.398	96.813
Spanish	2	0.787	0.797	97.610
Turkish	2	0.787	0.797	98.406
Other	4	1.575	1.594	100.000
Missing	3	1.181		
Total	254	100.000		

The chart below shows the distribution of **school years** that the students were in at the time of data collection. Given the rather large number of students self-identifying as being in their 5th school year and the fact that we didn't collect data in a 1st grade of lower secondary school (which would be the fifth year of their school-based education), it is possible that some students miscounted their actual school year.





The students described the **location of their schools** mainly as suburban, trailed by urban, with a small number identifying their school location as rural:



Q11.3 School location B	Frequency	Percent	Valid Percent	Cumulative Percent
Urban	103	40.551	44.783	44.783
Suburban	117	46.063	50.870	95.652
Rural	10	3.937	4.348	100.000
Missing	24	9.449		
Total	254	100.000		



1.4. Participants' CLIL learning experience

As to be expected, the vast majority of our students gave English as their **CLIL language**, with 36 claiming that German would fulfil this role, and 9 gave 'other' languages. Keeping objective knowledge in mind, the two latter categories seem to hint at misunderstandings, rather than an unexpected finding.



The Austrian students reported on a range of **subjects** they had had in a CLIL approach, with Business and Economics, Language and Communication, and Natural Sciences taking the lead, followed by Environment, PE and Sports, Philosophy, Ethics and Religion, Social Sciences, and Tourism and Hospitality.





In response to the rating-scale question about the objective of the participants' CLIL lessons, students indicated to what extent the **aim of their CLIL lessons** was on learning the language (with '0' being the most extreme point) or on learning content (with '100' as the most extreme point).

Although the mean of 52.6 indicates an overall balance of language and content learning, the standard deviation is high (32.5) and points to an extreme range of values. Such diverse realities become visible in the chart which shows that the students revealed diverse impressions of the aims of their respective CLIL realities, with a good many identifying the extreme points as most typical, while a third group interpreted CLIL as pursuing both learning aims in more or less of a balance.



In response to the rating-scale question about the extent of **CLIL language use**, students said to what extent the CLIL language was used in their CLIL lessons, with '0' standing for no use of the CLIL language, and '100' reflecting that the CLIL language is used exclusively.

Although the mean of 50.5 indicates an overall balanced use of the CLIL language and the main language of schooling, the standard deviation is high (32.7) and points to a wide range of values. Such diverse realities become visible in the chart which shows that the majority experience CLIL as relying only or mainly on the CLIL language, while the opposite is true for a third of the students, who say the CLIL language is used never or rarely.



Q15.2_1 Extend of CLIL lar	ng use	
Valid	202	—
Missing	52	35 -
Mean	50.500	30 -
Std. Deviation	32.702	25 -
IQR	56.750	
Skewness	-0.141	
Std. Error of Skewness	0.171	
Kurtosis	-1.291	o –
Std. Error of Kurtosis	0.341	0 20 40 60 80 100
Minimum	0.000	Q15.2_1 Extend of CLIL lang use
Maximum	100.000	

1.5. Focus on spare time

The graph below shows whether students rated their **daily digital activities** as 'important', 'moderately important', or 'not important'. While the following activities were not the ones most widely practiced by students on a daily basis, they were the digital activities which were deemed most important for CLIL learning by the students being involved in these activities:

- 1. Video sharing
- 2. E-book readers
- 3. Online video streaming
- 4. Social media





Consequently, students deemed that both receptive (online video streaming & e-book readers), as well as productive activities (video sharing), and mixed activities (social media) had an effect on their CLIL learning.

1.6. Access to digital devices in and out of school

Looking at the histograms below reveals that **availability** of internet was not a concern outside of school and it also seemed to be given within the school building, even if the internet was accessed a little less frequently than extramurally.



Frequency of internet acess at school



Regarding students **extramural use of digital devices**, the four most used digital devices were:

- 1. Mobile phone
- 2. Laptop
- 3. Desktop
- 4. Tablet



Digital devices such as gaming, smart watches, e-book readers, or smart home technology were not used by most of the participants extramurally. Surprisingly also, the use of gaming consoles and smart TVs was relatively low, despite depicting a broader variety of answers as visible in the figure above.

Comparing this to the students' **use of digital devices within the school** building revealed that the same digital devices were used as frequently in school as at home:

- 1. Mobile phone
- 2. Laptop
- 3. Desktop
- 4. Tablet

Other digital devices, on the other hand, were used even less in an educational setting than at home.





1.7. Challenges when using digital technologies

When asked about the challenges students encountered when using digital technologies, they mentioned a lack of internet connectivity at school to be the biggest challenge, followed by school policy, lack of adoption by teachers, and limited access to technology at school.

In comparison students appeared to have access to software extramurally and parents, budget or their IT skills seemed to limit them the least.



2. Digital Literacies Teacher Survey (DLTS): Austria

2.1. Introduction

The survey was undertaken from the beginning of March to the end of April 2024. The questionnaire was distributed online via a snowball system and shared mainly via email with a link and a QR code. Consequently, the sample is a convenience sample. Contacts in different parts of Austria but mainly in Vienna were addressed. A reminder email was sent after two weeks as participant numbers were only rising very slowly in the beginning.

In the Austrian context CLIL teaching mainly focuses on the English language. While CLIL is obligatory in primary school, there is no overall CLIL policy for the secondary school level, but there are some school types that require some CLIL lessons for certain school years. In these CLIL policies, CLIL is not conceptualised as a mere language bath but rather focuses on the integrated nature of content and language, combining language learning with content learning activities and making use of scaffolding. In addition to these policies, there are also a range of school-based initiatives where some form of CLIL is implemented (for more information on the CLIL provisions in Austria see Gülle & Nikula 2024, 49-52).

2.2. Summary of main findings

- Basic description of the 45 participants: More female than male teachers participated. Teachers were mostly monolingually German speaking with English as CLIL language. On average they had 13 years of teaching experience and 9.37 years of CLIL teaching experience, linked to some form of CLIL training.
- Most teachers were not foreign language teachers but teachers of content subjects, which could be linked to the finding that the focus of CLIL lessons was more on content than on language, according to the Austrian participant sample.
- Teachers' use of technical devices could be divided in two spheres: the private sphere (smart watch, smart TV...) and a mixed sphere (laptop, mobile phone, tablet...).
- Teachers did not use technology daily in CLIL lessons, but they used digital projectors a few times per week. Otherwise, they only reported using video streaming, online video sharing, online research, and e-textbooks a few times per month. Consequently, the inclusion of digital tools appeared to be rather low in CLIL lessons.
- They also thought that students used relatively little digital technology in the main CLIL language in their spare time.
- Yet, teachers stated to spent 20 minutes per CLIL lesson with technology and stated that students' technology was important for their lesson planning. However, answers regarding the usefulness of technology for disciplinary literacy skills, multilingual learning and motivation to link content and language learning were varied.



- Austrian teachers had relatively high reported knowledge regarding digital tools, but all reported to face challenges.
- While most of the teachers stated to be unaware of the concept of Critical Disciplinary Literacies (CDLs), they reported high frequency of CDLs in their CLIL teaching, which could point to unfamiliarity with the overall concept but familiarity with practical application.

2.3. Participant background

As visible in the pie chart, most participants indicated that they were female (N=26), followed by male (N=17). Two participants preferred not to say.



Regarding the distribution of **first languages**, most participants reported German as their mother tongue (N=40), and 11 teachers reported English as one of their first languages. Moreover, 4 other languages were reported as first languages as visible in the figure below.





In total 36 teachers self-identified as monolingual, while 9 teachers reported having more than one first language.



As to be expected 37 out of 45 teachers reported to have German as their **main language of schooling**. However, four teachers gave English and German as official languages of schooling, which could be due to them being part of a dual language school. Moreover, four teachers reported having English as the main language of schooling, but it is not clear why this is the case.





As visible in the bar chart, most teachers reported that their **main CLIL language** was English (N=42). Three teachers stated that their main CLIL language was German, which might be due to the teachers working in an Austrian school located in Albania, in which German functions like a CLIL language.



Regarding the **teaching subjects**, looking at the histogram below, most teachers taught Language and Communication (N=17) followed by Social Sciences (Geography (N=11), History (N=10), Society and Environment (N=10)), and Technology (N=10).





Explaining the histograms below, '1' stands for the age range of 9-12, '2' for 13-16, and '3' for 17-21. '4' refers to teachers who teach students in the first two categories (9-12 and 13-16), '5' to teachers who teach students in the two categories of 13-16 and 17-21, '6' to teachers who teach the youngest (9-12) and oldest category (17-21), 'and' 7 refers to teachers who teach all three categories. Each histogram denotes one school subject and shows on the y-axis how many students of each age range were taking a particular subject as CLIL subject.

For example, the majority of teachers were teaching Language and Communication as CLIL subject to students between the age of 9-12 (N=6), followed by the age group of 17-21 (N=1), or teachers who taught students between the age of 13-21 (N=2) or all age groups (N=2).







Regarding the **years of teaching experience**, as visible in the table below teachers had a median teaching experience of 13 years (M=13.76). However, the group was rather heterogeneous with a standard deviation of 9.38 and a range of 34 years. Consequently, it seems like the Austrian sample contains a wide range of teaching experience.



Q3.16_Years_Tg

40110_10010_19	
Valid	45
Missing	0
Median	13.000
Mean	13.756
Std. Deviation	9.379
IQR	13.000
Skewness	0.532
Std. Error of Skewness	0.354
Kurtosis	-0.441
Std. Error of Kurtosis	0.695
Shapiro-Wilk	0.947
P-value of Shapiro-Wilk	0.040
Minimum	1.000
Maximum	35.000

Looking at participants' **experience with CLIL teaching**, they stated to have 9.37 years of experience. Interestingly, this was much lower than the average teaching experience, which indicates that CLIL teaching started at some point during the teachers' overall school career. Similar to the years of teaching experience in general, the variation was quite high with a standard deviation of 7.57.

Q3.17_Years_CLILTg	
Valid	43
Missing	2
Median	8.000
Mean	9.372
Std. Deviation	7.572
IQR	9.500
Skewness	0.800
Std. Error of Skewness	0.361
Kurtosis	-0.580
Std. Error of Kurtosis	0.709
Shapiro-Wilk	0.875
P-value of Shapiro-Wilk	<.001
Minimum	1.000
Maximum	25.000



In total 25 teachers reported to have participated in explicit **CLIL training**, while 20 participants refuted this.



Looking at the type of CLIL training experienced so far, most participants were involved in informal training (N=10) or in professional development programs (N=10).



Out of all participating teachers, only 17 were **foreign language teachers**. Consequently, the majority of CLIL teachers observed in the Austrian sample were content teachers (N=28).





Most of the foreign language teachers were educated to teach English. The only other languages taught were Irish and French.

2.4. Participants' CLIL teaching experience

All of the **subjects** were taught as CLIL classes. Additionally, most of the teachers had taught their subjects also as CLIL lessons.





As visible in the table below teachers believed that the **objectives of CLIL teaching** was mainly content teaching (*MD*=79). However, there was a relatively high interquartile range of 19.5, indicating that teachers varied slightly in their views. The 95% confidence interval was 61.97 and 81.29.

Q3.14_CLIL_TgAims_Lg-Content		
Valid	43	
Missing	2	
Median	79.000	
Mean	74.628	
Std. Deviation	22.282	
IQR	19.500	
Skewness	-1.290	
Std. Error of Skewness	0.361	
Kurtosis	1.467	
Std. Error of Kurtosis	0.709	
Shapiro-Wilk	0.869	
P-value of Shapiro-Wilk	< .001	
Minimum	87.000	
Maximum	13.000	

Next, teachers were asked about **language use in CLIL lessons**. Although the Shapiro-Wilk test indicated normal distribution skewness, kurtosis as well as the Q-Q plot generated suggested non-normal distribution. Consequently, the median and interquartile range are interpreted.

With a median of 70 percent, teachers on average stated that most of their CLIL teaching took place in the CLIL language and was rather not multilingual. However, the interquartile range of 62.5 indicates that teachers were clearly undecided about this topic. This is also supported by the range of 100%, meaning that teachers ticked from 'purely multilingual' to 'purely CLIL language'.

Q3.15_LginCLIL_Biling-TargetLg		
Valid	43	
Missing	2	
Median	70.000	
Mean	59.907	
Std. Deviation	69.461	



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IQR	50.353
Skewness	31.966
Std. Error of Skewness	62.500
Kurtosis	-0.418
Std. Error of Kurtosis	0.361
Shapiro-Wilk	-1.303
P-value of Shapiro-Wilk	0.709
Minimum	0.898
Maximum	0.001

2.5. Participants' school environment

As to be expected, the majority of participants (*N*=35) in the Austrian context reported their **school language** to be German, as it is the official main language of schooling in Austria. However, 7 teachers reported that their official language of schooling was English, which could indicate that they were part of a school with an officially bilingual program or an international school. Furthermore, Albanian, Croatian, and Greek were mentioned by one teacher each as the official language of schooling, which is rather attributed to misunderstanding of the questions as these languages are not very common as schooling languages in Austria.





Looking at the descriptive statistics for **bi/multilingual background** reveals that the variable was not normally distributed, which indicates that rather the median should be interpreted. On average teachers reported that 40 percent of the students in their school came from a bi/multilingual background. However, the interquartile range was high (IQR=40), pointing at a heterogeneous answer sample, which can be seen in the boxplot below as well.



2.6. Use of digital tools in CLIL

As visible in the clustered boxplot below, teachers tend to use their mobile phone and their laptop both for **personal and educational purposes**, while the desktop was rather reserved for school activities, as it was not mentioned for personal use only. Similarly, the tablet was mostly used in an educational context; however, answers ranged from personal use to both uses. Other devices such as smart watches, smart TV, E-book readers, and smart home technology appear to be reserved for private use only. The only exception are gaming consoles which were mostly used in a private context as well but were mentioned in the school context.





The following figure shows that none of the **digital activities** listed in the questionnaire was reported to be used in every lesson. The activities done the most often are:

A few times per week	A few times a month	A few times per term
1. Digital projectors	 Video streaming Online video sharing Online research E-textbooks 	 6. Free educational apps 7. Al

Digital activities in the main CLIL language which were reported to be never used are:

- 1. Social media
- 2. Multiplayer games
- 3. VR
- **4.** Online shopping
- 5. Paid educational apps
- 6. Single player games
- 7. Online courses
- **8.** Digital reading devices

Lastly, most participants also stated that the following activities were never used in the classroom; however, there was a wider range of answers than with the activities before:

- 1. Instant messaging
- 2. Mobile phone apps
- 3. Mobile photography
- 4. Digital storytelling
- 5. Online forums
- 6. Music streaming
- 7. E-book readers





Regarding the amount of **time spent on digital technologies in a CLIL lesson**, participants reported to devote about 20 min per session to digital technology on average. However, as visible in the boxplot below the interquartile range is 10 and, apart from some outliers, who reported to use digital technology up to 50 min per lesson, teachers reported to use digital technology rather a little less than 20 min per CLIL lesson.



As visible in the pie chart below, most teachers were **no specialist teachers** who taught solely CLIL lessons, but they taught non-CLIL lessons as well.



Zooming in on all teachers who reported to teach both CLIL and non-CLIL classes reveals that on average teachers appear to display a similar behaviour regarding digital technology in the classroom in both settings (M=39.16, SD=19.41).







2.7. Teachers' competences and challenges

Looking into teachers' **self-reported knowledge of digital tools**, they rated their competences relatively well, with all but one competence being rated as having 'average' knowledge about it. The competence participants felt least confident about using digital technology for the sake of increasing inclusiveness. The most variety was found within the competences related to using digital technology for feedback purposes and linking their use to certain learning objectives.





Regardless of their relatively high self-reported knowledge of digital technology use for teaching, 71.79% of Austrian teachers stated to face **challenges** when they used digital technologies in their teaching



2.8. Teachers' perceptions of digital technologies in CLIL

Looking at teachers' agreement to different statements related to **technology use in the CLIL classroom**, their answers were quite diverse. Teachers neither agreed nor disagreed whether students' disciplinary literacy skills improved when incorporating technology into CLIL learning. The interquartile range and the histogram indicate that teachers were thinking very heterogeneously regarding this topic.

A more positive picture emerges regarding teachers' belief that students are encouraged to be more multilingual in their learning when using digital technology. On average teachers agreed with this statement (MD= 4), although some variation was given, as visible in the histogram as well (SD=2).

A similarly positive reaction was given when it comes to students' increased motivation to use language and content in an integrated manner (MD=4), with teachers agreeing even more strongly with this statement (SD=1).







Interestingly, Austrian teachers stated that student's technology use was quite important for their CLIL lesson planning (MD=4), with an interquartile range of 1 as also visible in the histogram below.



Importance of students' technology use for CLIL lesson planning



Lastly, teachers were asked to indicate whether they thought that the use of technology was rather relevant to improve students' skills or their bi/multilingual disciplinary literacies. As visible, teachers were rather undecisive regarding this question. However, on average teachers stated that technology was rather more relevant for bi/multilingual disciplinary literacy than for general language skills (MD=67). Yet, the interquartile range is very high (IQR=54) as also visible in the boxplot below.



Teacher evaluation of technologies relevance for language skills or CDLS

2.9. Students' digital competences: teachers' perceptions

When asked about how **frequently they discussed technology** with their students, Austrian teachers on average responded to do so 'sometimes' (MD=3). However, as visible in the histogram, answers varied slightly to both sides (IQR=1) with some teachers doing so 'often' and others 'rarely'.





When it comes to making an **explicit link between technology and CLIL learning**, Austrian teachers stated that they did this 'rarely' (*MD*=2) with relatively little variation (*IQR*=1).



A slightly more positive response was given to the question whether they gave students some **guidance** on how to use technical tools extramurally. On average teachers stated to do this 'sometimes' (MD=3), with slight variation (IQR=1) to 'rarely' or 'often'.



2.10. Students' extramural use of digital technologies: teachers' perceptions

Regarding teachers' **perceptions of their students' extramural use of digital technologies in the main CLIL language**, the figure below shows that teachers thought that students used relatively few extramural digital technologies in their CLIL language overall. The activities which teachers thought that students did the most in their CLIL language are:

- 1. Gaming
- 2. Mobile apps
- 3. Online Video sharing



2.11. The teaching of Critical Digital Literacies in CLIL

When asked about their **level of awareness regarding critical digital literacies**, 62.16% of the Austrian teachers stated that they were not aware of the concept, while only a third reported to be familiar with CDLs.





When asked about which CDLs they discussed at which frequency in their CLIL teaching with their students, teachers agreed that they 'often' discussed credibility, accuracy, and reliability of information online with their students (MD=4). The CDLs discussed the least were concerned with encouraging students to reflect on their own digital skills (MD=2) and lastly copyright and privacy issues (MD=2).







- Bauer-Marschallinger, S., Dalton-Puffer, C., Heaney, H., Katzinger, L., & Smit, U. (2023). CLIL for all? An exploratory study of reported pedagogical practices in Austrian secondary schools. *International Journal of Bilingual Education and Bilingualism*, 26(9), 1050–1065. https://doi.org/10.1080/13670050.2021.1996533
- Gülle, T., & Nikula, T. (2024). Overview of CLIL provision in Europe and country-specific insights: A report by CLILNetLe Working Group 1. V1. PHAIDRA repository (University of Vienna). <u>https://hdl.handle.net/11353/10.2050619</u>