CLILNetLE

DIGITAL PRACTICES IN AND OUT OF THE CLIL CLASSROOM: TÜRKIYE

A Report by CLILNetLE Working Group 4

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

Table of contents

1. Digital Literacies Student Survey (DLSS): Türkiye

1.1. Introduction

Steps were taken in a manner akin to the DLTS survey, reported in Chapter 2 below. The process of gathering data started on March 11 with discussions with instructors from different schools and universities. Teachers were interviewed in-person, over the phone, and over email regarding how to administer the survey to students and obtain consent from parents. Teachers were advised that all ethical procedures were considered, and that the University of Vienna's ethical committee had granted approval.

Many Turkish educational institutions that implemented the CLIL method -private schools, universities, colleges, and Anatolian high schools- were given the survey. Only after identifying the schools where the CLIL approach was implemented were the participants deemed appropriate for the snowball sampling procedure. A larger audience and a thorough sample were reached since schools in various regions were accessible. As the survey was being implemented, there were a few technical issues that arose, but every attempt was made to find solutions.

Looking at the CLIL method's application areas in Türkiye, we can find that language acquisition is its primary purpose. Furthermore, application domains like Physics and Mathematics are commonly seen in CLIL courses. The Ministry of National Education also incorporated applications of the CLIL approach into its training program. Therefore, the CLIL method can be applied to public schools. It is also feasible to argue that in Türkiye, the CLIL approach incorporates the use of technology in the form of online and multimedia course materials.

1.2. Summary of main findings

- From the numerical data retrieved from quantitative data analysis applications and programmes such as JASP, SPSS, and Excel, it was found that while the distribution was not equal regarding the age, gender, and school year of the participant students, a somewhat equal distribution was caught for the categories of location of schools and extend of CLIL usage in the CLIL classes.
- Additionally, variety was also observed regarding home languages ranging from Kurdish, English, Arabic, and German to Turkish. Furthermore, variety was also reached in the category of parents' background education. Therefore, it is possible to conclude that the findings of the study can be generalizable for the Türkiye context, since not only was it employed in various regions, but it could also reach a variety of participants to be representative enough.
- It was determined that the students participating in the research mostly preferred social media, instant messaging, and video streaming activities in out-of-school learning environments and performed these activities frequently. In addition, it was found that there had been a particularly large change in the use of VR, and various differences were observed in other digital activities.

- The most common place for students to access the Internet was their own room, while the least common place was their relatives' house. There was moderate internet access and variability in public spaces.
- The use of technological devices among students showed that mobile phones were the most used devices, and game consoles were the least used devices. Tablets and smart TVs differ significantly in their usage. While laptops and desktop computers were used at a moderate level, game consoles and e-book readers were the least used.
- While it was observed that students mostly used mobile phones in schools and that this usage occurred on a daily basis, tablet usage was lower and scattered. It was observed that laptops were preferred by students daily and 1-2 times a week. The usage of desktop computers, game consoles, smart watches, e-books, smart TVs, and smart home technologies was low.
- The most common factor that prevented students from using technology was limited access outside school. Other common problems included internet access, parents, lack of software, privacy, time, teachers, limited skills, and school policy.

1.3. Participant background

Not considering the participants excluded in data cleaning, the valid number of participants was 193 (*N*=193). Regarding the distribution of **age** among the surveyed participant students who were enrolled in CLIL education either in weak or in strong forms in Türkiye fluctuated between the age of 10 and 21. But it intensified around the age of 21 (*M*=26.4, *N*=51).
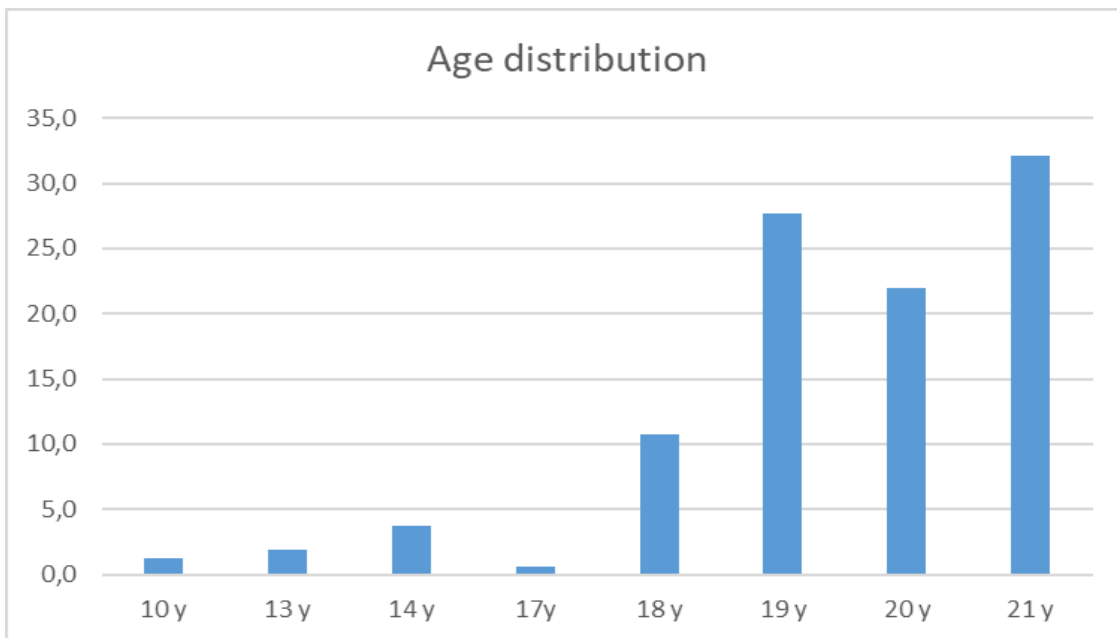
As seen in the pie chart, we cannot report any either equal or near-like equal gender distribution of the participants who took part in the survey. While the female represented the biggest part of the sample (% 74), next came male participant (%23), and the rest preferred not to say (%1) or indicated 'others' (% 2). Female participants dominated the study in the context of Türkiye for CLIL.
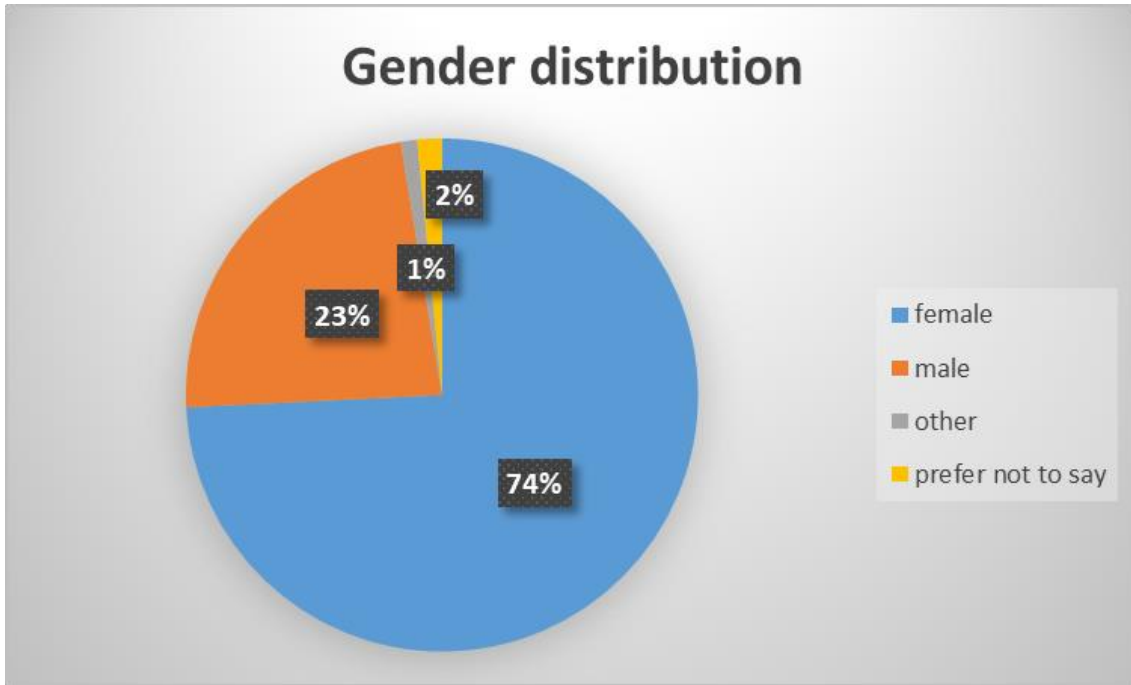
The following question investigated CLIL students' **parents' background education level**. As shown in the histogram, we can observe a possibly decent distribution among the levels ranging from Primary level (N=29) to postgraduate degree (N=5). However, most of the parents' educational background densifies around the upper secondary level (N=55), and secondary dominant ones are lower secondary level (N=45), and undergraduate degree (N=43).
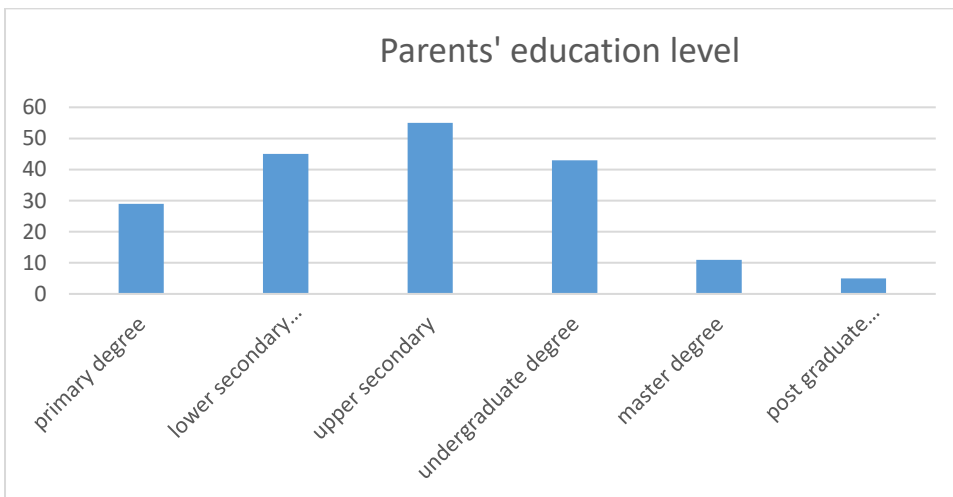
In the context of Türkiye as the natural outcome, the most commonly used **home language** was Turkish (M=67,74, N=136), the most secondly used language at home was German (M=36.67, N= 22), and the rest were English (M=15.67, N=15), Arabic (M=8.67, N=8), and Kurdish (M=13.53, N=12).

Languages used at home
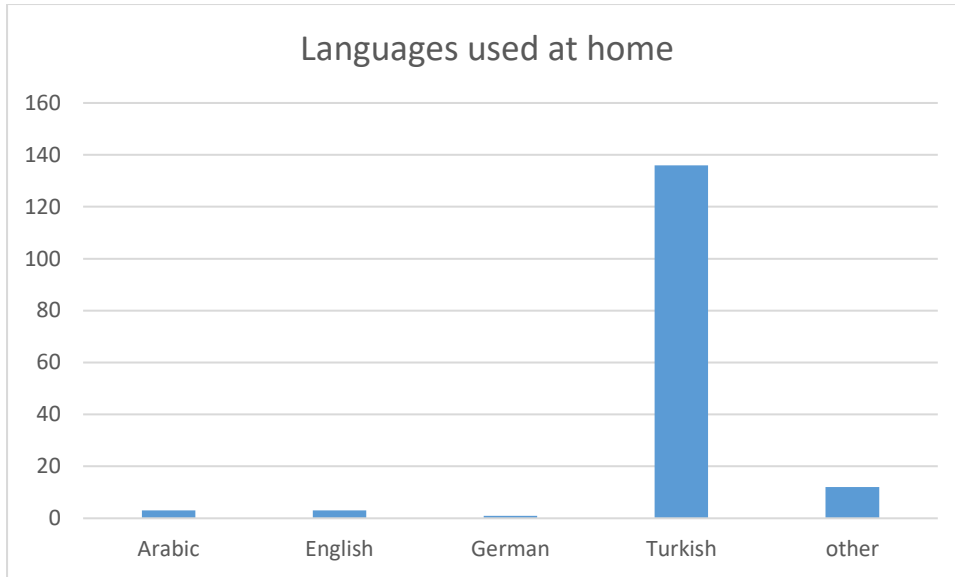
Participants were asked about the **main language of schooling**, while most of them selected Turkish (57.7%, N=109), around 40.2% (N=76) selected English, only one participant selected German (.05%), and 2 students (1.1%) selected Arabic as the schooling language.

Main language of schooling
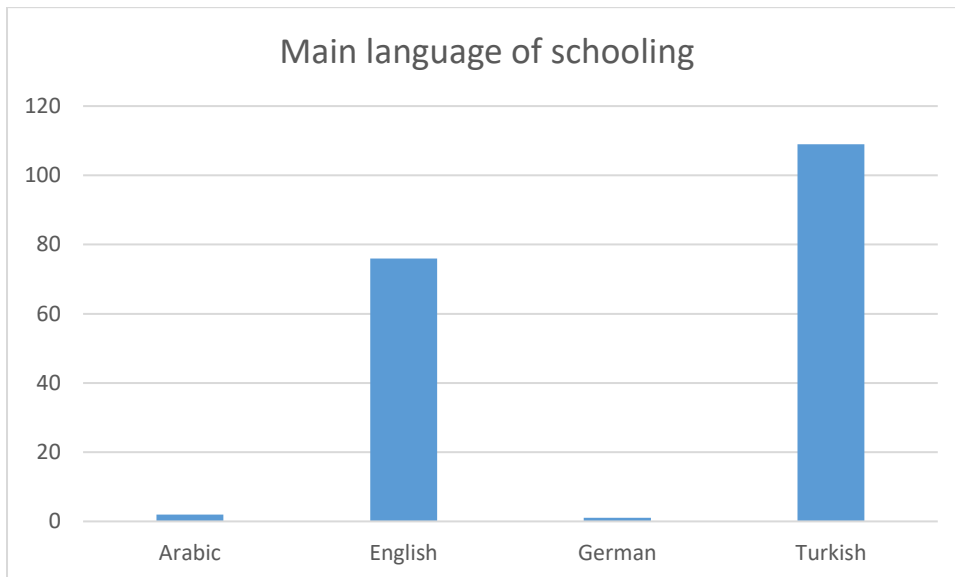
Participant **school year enrolment** did not stand for an equal distribution. While most of the sample cumulated around 11th year (N=56), 13th year (N=46), and 12th year (N=30), the rest of them spotted around 10th year (N=5), 1st year (N=5), 2nd year (N= 3), 4th (N=2), 6th (N=2), 8th (N=2), 9th year (N=2)

School year enrolment

Legend: ■ 1,00 ■ 2,00 ■ 4,00 ■ 6,00 ■ 8,00 ■ 9,00 ■ 10,00 ■ 11,00 ■ 12,00 ■ 13,00
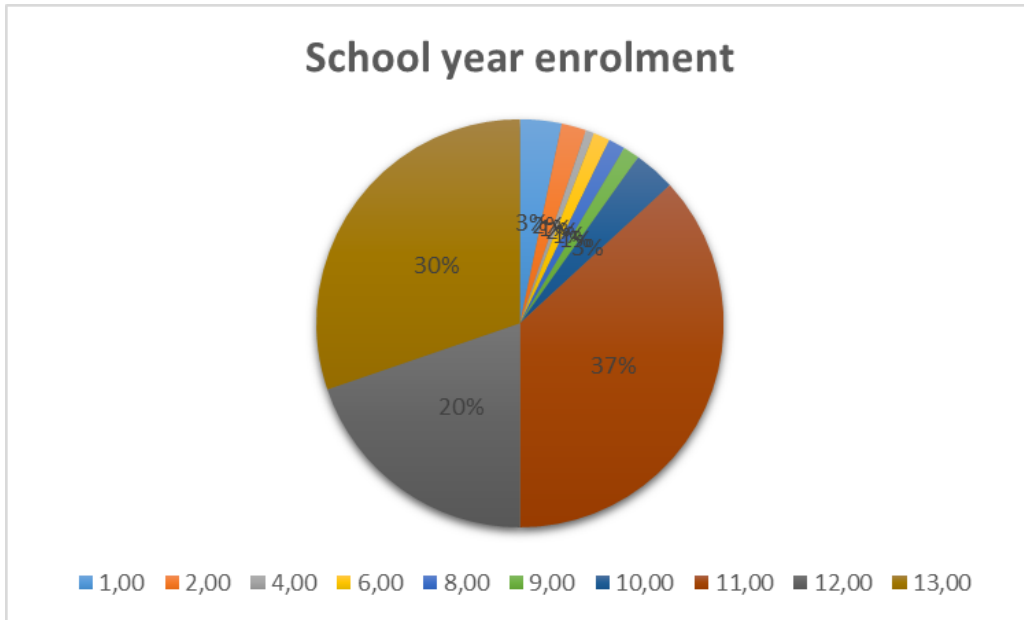
As seen on the frequency table and the histogram below, it was clear that participant students were mostly educated in urban-based schools (N=102), rural schools (N=37), and finally suburbs-based schools (N=15). The results are easily generalizable to the Türkiye context since we have participants all around the country.

Location of school
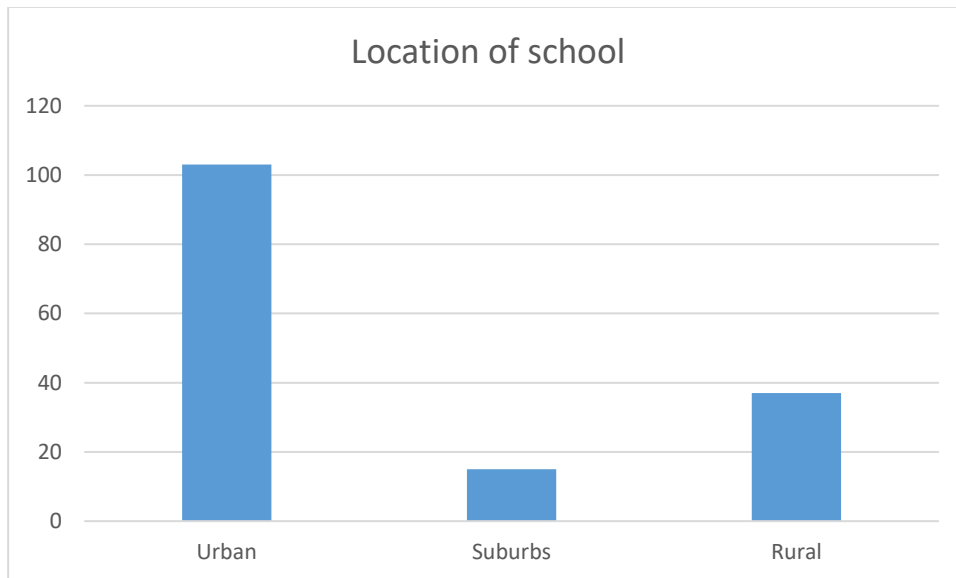
1.4. Participants' CLIL learning experience

Participant students were asked aboıt their **main CLIL language**, and most of them selected Turkish for the CLIL education. This result is caused by misunderstanding since teachers may be code-switching, or translanguing between the languages of German, English, Arabic, and Türkish. That is why students had the perception of employing Turkish in CLIL education, as

confirmed by CLIL school administrators and teachers. So the result would be Translanguaged Turkish, (*N*=118) and Pure English (*N*=75).
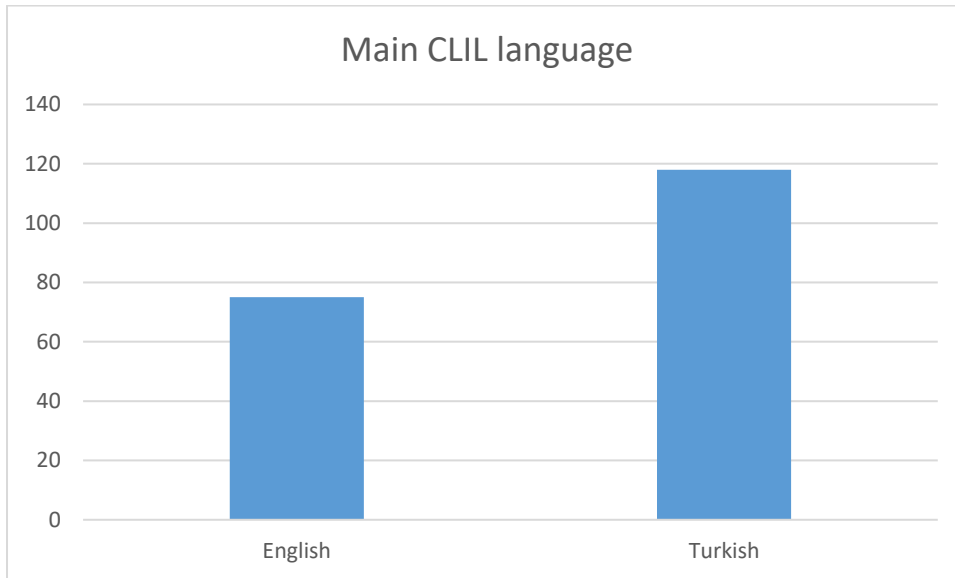
The survey also focused on the **main CLIL subjects** of the schools. Arts classes were the most common for the CLIL-based education (*N* =68), then Language (*N*=66), Philosophy (*N*=58), Environment (*N*=54), Sports (*N*=55), Heath (*N*=49), Economy (*N*=47), Technology (*N*=40), Tourism and hotel management (*N*=42), Law (*N*=39) in Türkiye.
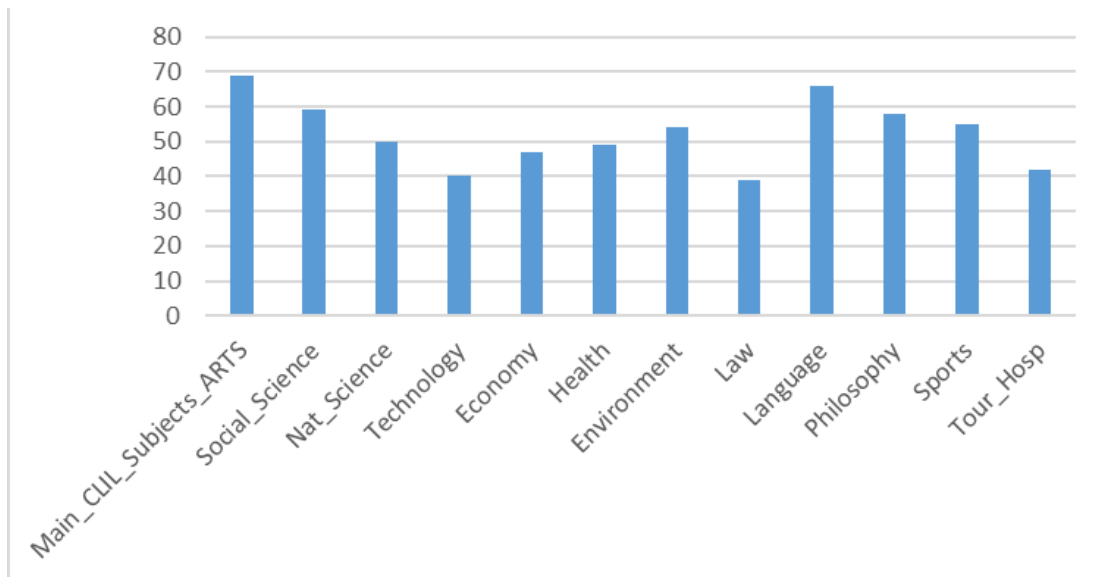
In terms of the ultimate **aim of the CLIL subjects**,110 students responded to this question and were asked to choose between whether the focus of the CLIL lessons was on language learning or on subject learning. While 55% (*N*=61) of the participant students responded that they used CLIL for subject learning, 45% (*N*=49) of them selected that the aim was language learning.

The Aim of CLIL Lessons
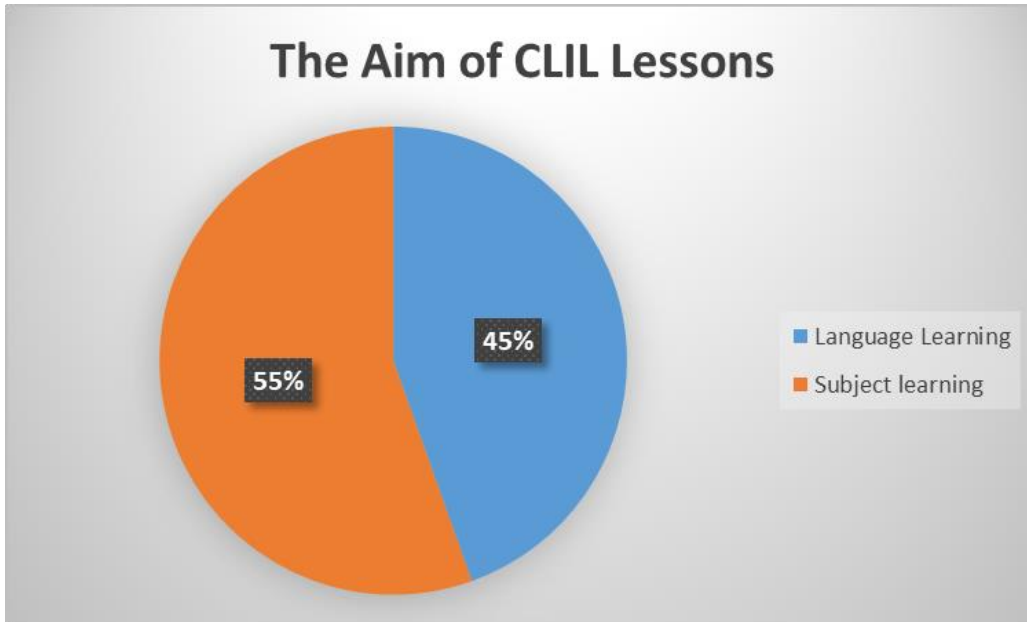
Objective_CLIL_Subjects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	49	25,3	44,5	44,5
	2,00	61	31,4	55,5	100,0
	Total	110	56,7	100,0	
Missing	System	84	43,3		
Total		194	100,0		

In the following question, students were asked about the **language in practice in the CLIL lesson** regarding to what extent the classes were monolingual or multilingual. They responded that most of the time CLIL classes were multilingual (*N*=74, 60%), while the rest of them selected monolingual CLIL classes (*N*=49, 40%). These results are also aligned with the findings of Question 3.2 since there students perceived the multilingualism in CLIL classes as Turkish-based.

Extend of CLIL language usage in the lessons
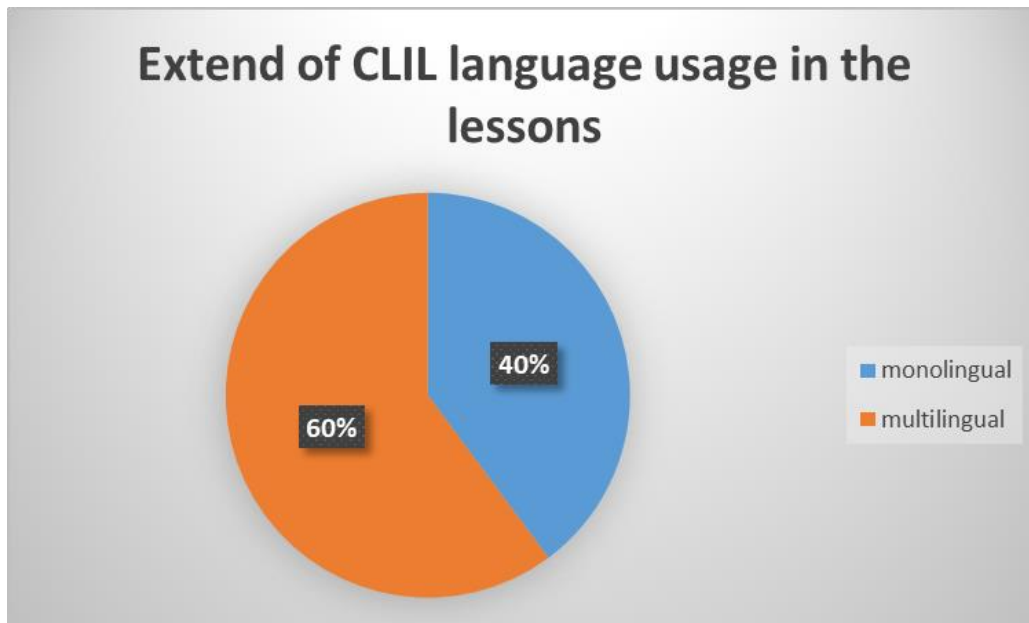
Extend_of_CLIL_usage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	monolingual	49	25,3	39,8	39,8
	multilingual	74	38,1	60,2	100,0
	Total	123	63,4	100,0	
Missing	System	71	36,6		
Total		194	100,0		

1.5. Focus on spare time

When the daily **out-of-school learning environments** among the students participating in the survey and the impact of these environments on their learning situations were examined, it was observed that the highest rates were for social media, instant messaging, and video streamline. In these activities, *M* values varied between 1.30 and 1.50, and *MDN* was generally 1.00. This showed that the students frequently engaged in these activities. Looking at the activities with mobile phones, digital storytelling, and e-textbooks, these were not as preferred as social media, instant messaging, and video streamline, but they were done frequently (with M valued of between 1.68 and 1.79, *MDN*=2.00). The students participating in the survey frequently shopped online with values of *M*=1.50 and *MDN*=1.00. *SD* values in activities such as other activities (multiplayer, online forum, free education, paid education, ai, digital projects, single player, online courses, digital reading) varied between 0.635-0.870, and

these values showed that there were differences between users in these activities. When looking at VR, a relatively high SD of 0.928 indicated large variation in usage among students.

Data showed that digital activities, such as social media and instant messaging, were very popular among users. In general, it appeared that users adopted different activities in the digital world at different rates.

Spare time CLIL activities
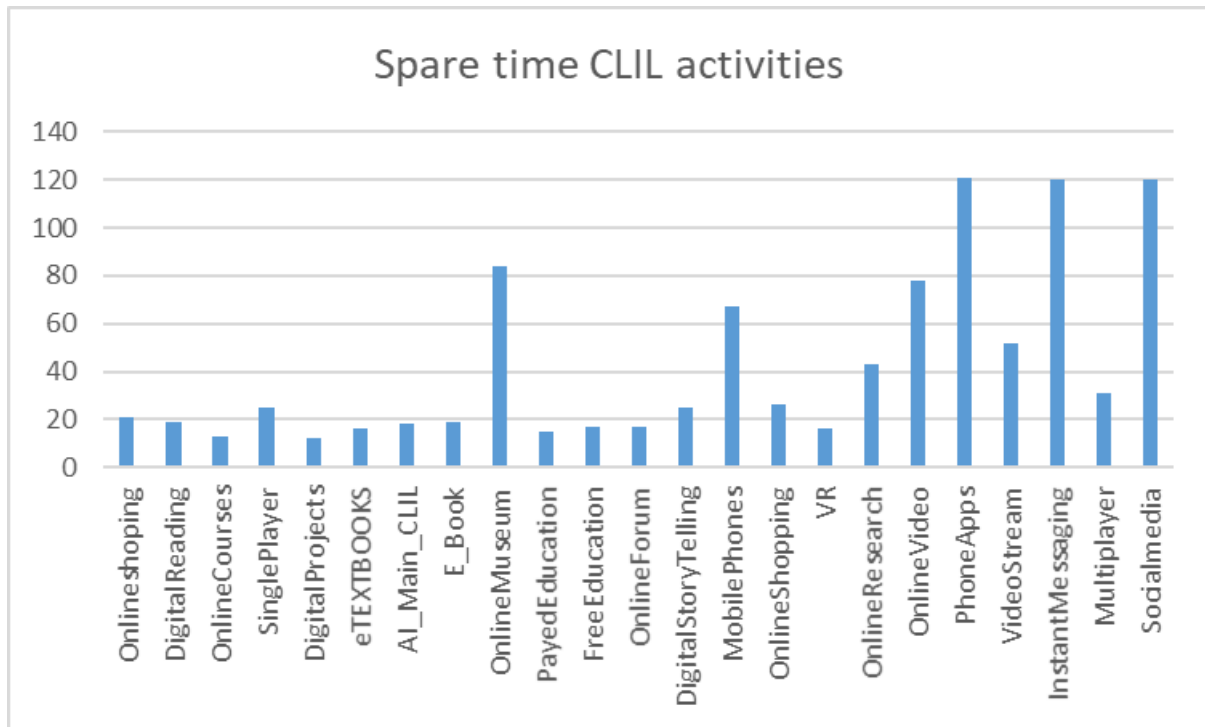
Descriptive Statistics

	Social media	Multiplayer Gaming	Instant messaging	Video streaming	Phone apps	Online video sharing	Online research	VR	Online shopping	Mobile photo	digital storytelling	Online forums	Free educational apps	Payed educational apps	Online music streaming	e-book readers	AI	e-textbooks	Digital projectors	Single player	Online courses	Digital reading
Valid	117	31	120	52	121	78	43	16	47	67	25	17	17	15	84	19	18	16	12	25	13	19
Missing	76	162	73	141	72	115	150	177	146	126	168	176	176	178	109	174	175	177	181	168	180	174
Median	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.000	1.000	2.000	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.000	1.000	1.000	1.000
Mean	1.496	1.613	1.375	1.308	1.397	1.449	1.488	2.063	1.596	1.791	1.720	1.588	1.471	1.667	1.333	1.316	1.389	1.688	1.917	1.560	1.462	1.474
Std. Deviation	652	882	636	579	612	677	703	929	742	729	792	870	717	816	588	671	698	946	900	712	660	697
IQR	1.000	1.500	1.000	250	1.000	1.000	1.000	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0	750	2.000	2.000	1.000	1.000	1.000
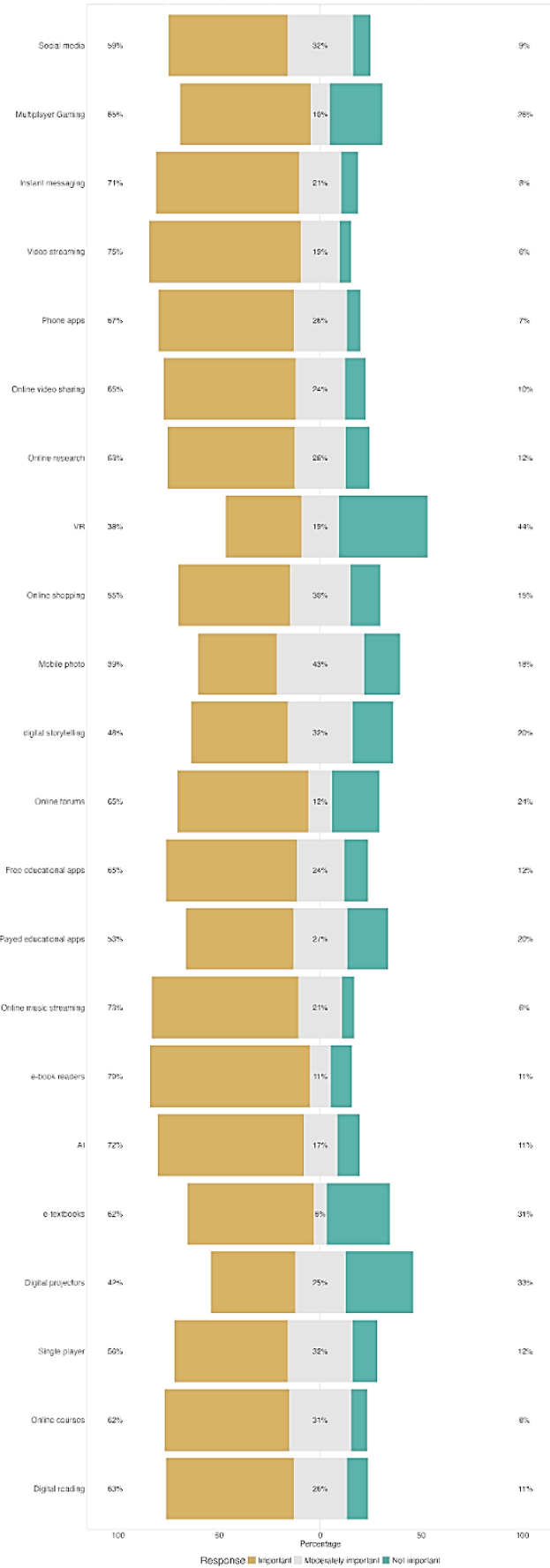
|	Important	Moderately important	Not important
Social media	69	38	10
Multiplayer Gaming	20	3	8
Messaging	85	25	10
Video Streaming	39	10	3
Phone Apps	81	32	8
Online Video Sharing	51	19	8
Online Research	27	11	5
VR	6	3	7
Online Shopping	26	14	7
Mobile Photography	26	29	12
Digital Storytelling	12	8	5
Online Forums	11	2	4
Free Educational Apps	11	4	2
Paid Educational Apps	8	4	3
Online Music Streaming	61	18	5
E-book Readers	15	2	2
AI	13	3	2
eTextbooks	10	1	5
Digital Projectors	5	3	4
Single Player Games	14	8	3
Online Courses	8	4	1
Digital Reading	12	5	2

1.6. Access to digital devices in and out of school

The table below shows the **internet access** of the students participating in the survey. It can be seen that the place with the highest value was their own rooms. This showed that students' access to the Internet in their personal rooms was common. The least common option among students was access to the internet in relatives' homes. While access to the internet at school was also common, it appeared to be more variable. In public spaces, moderate levels of prevalence and variability were observed.
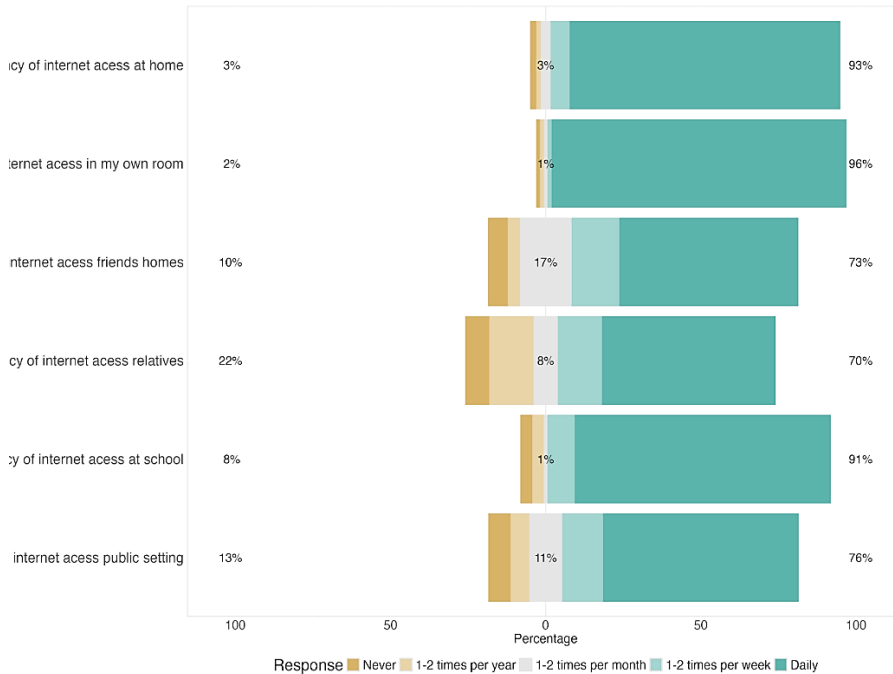
Device	Never	1-2 times per year	1-2 times per month	1-2 times every week	Daily
At home	3	2	5	9	131
In my own room	1	1	1	1	78
In friends' homes	5	3	13	12	45
In relatives homes	6	11	6	11	43
At school	3	3	1	7	66
In public settings	6	5	9	11	53

As shown in the table below, illustrating the **technological devices** preferred by the students participating in the survey **in out-of-school environments**, mobile phones ranked first with the value (M=4.691). This showed that mobile phones were the most used technology. With the lowest usage value (M=1.544), the game console was the least used technology among technological devices. With the highest standard deviation values, tablets (SD=1.521) and smart TVs (SD=1.585) showed that the use of technological devices varied greatly. Among technological devices, laptops and desktops had moderate usage and medium variability, while game consoles and e-book readers had the least usage and low variability.

11
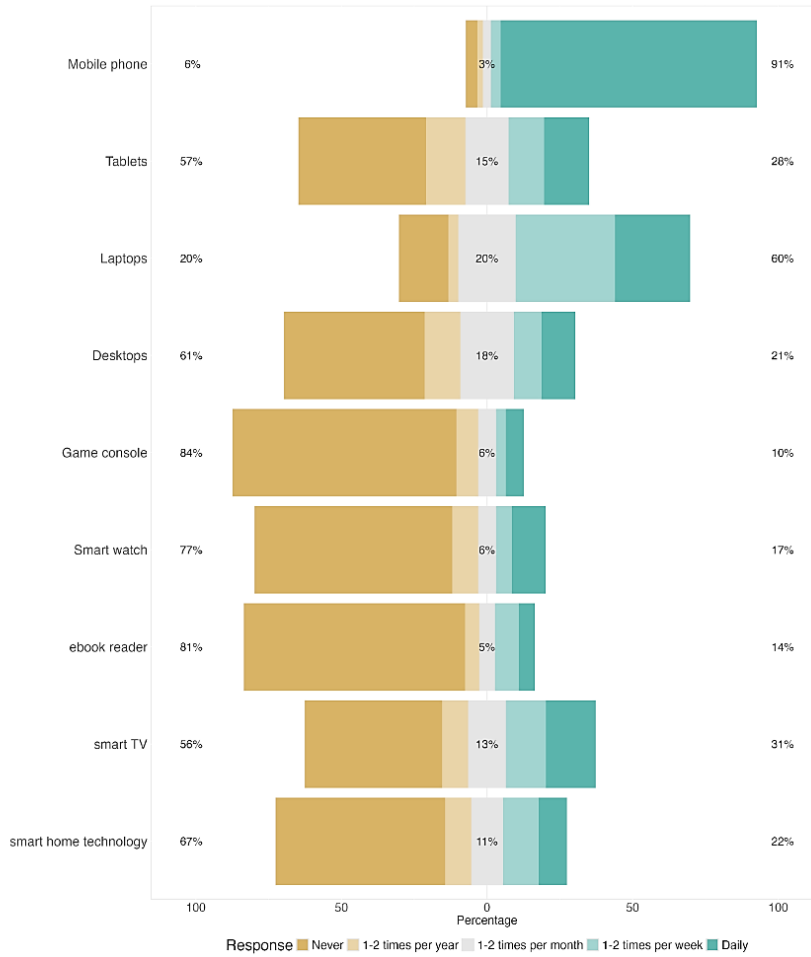
Device	Never	1-2 times per year	1-2 times per month	1-2 times every week	Daily
Mobile phone	6	3	4	5	131
Tablet	65	20	22	18	23
Laptop	25	5	29	50	38
Desktop	71	18	27	14	17
Game console	113	11	9	5	9
Smart watch	100	13	9	8	17
E-book reader	111	7	8	12	8
Smart TV	69	13	19	20	25
Smart home Tech	85	13	16	18	14

The following table shows the use of **digital devices** by the students participating in the survey **in school.** It can be seen that the frequency of mobile phone use was high, and the data in the graph were concentrated on the 'daily' option. The frequency of tablet use was lower and was observed in a wider range. This may be because mobile phones have replaced tablets.

The values of *M*=2.324 and *SD*=1.568 show that the distribution was scattered, and some users used tablets intensively, while others used them very little. When we looked at students' laptop usage, it can be seen that the 'daily' and '1-2 times per week' options were generally preferred. It was understood from the values of *M*=3.297 and *SD*=1.525 that laptop usage was widespread. It can also be seen that the frequency of desktop usage by students was low and spread over a wide range. It was observed that the frequency of students' use of game consoles, smart watches, e-books, smart TVs, and smart home technology was low and generally concentrated at low values.
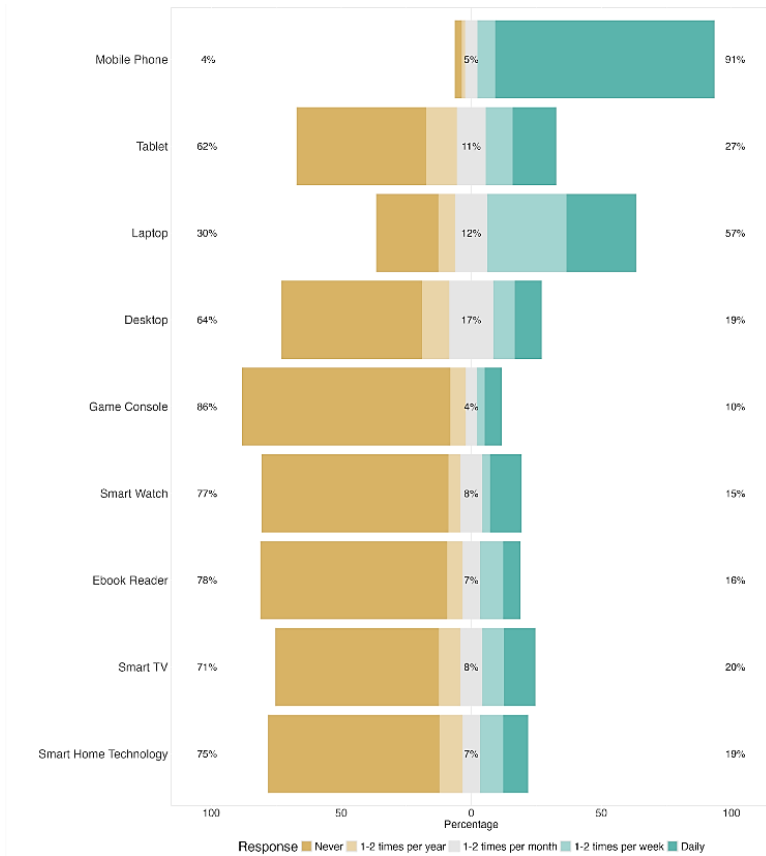
Device	Never	1-2 times per year	1-2 times per month	1-2 times every week	Daily
Mobile phone	4	2	7	10	125
Tablet	68	16	15	14	23
Laptop	33	9	17	42	37
Desktop	73	14	23	11	14
Game console	109	8	6	4	9
Smart watch	95	6	11	4	16
E-book reader	97	8	9	12	9
Smart TV	83	11	11	11	16
Smart home Tech	89	12	9	12	13

13

1.7. Challenges when using digital technologies

Various factors are related to the factors that **hinder the use of technology** by students participating in the survey. The most frequently mentioned was limited extramural access. Students experience various difficulties in accessing necessary technologies. The second most selected o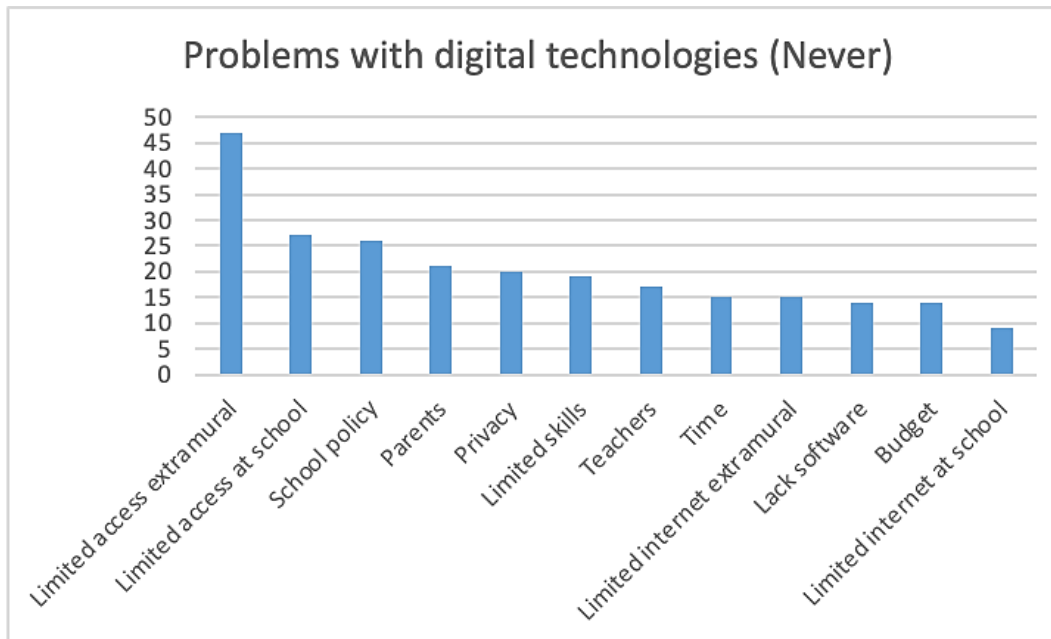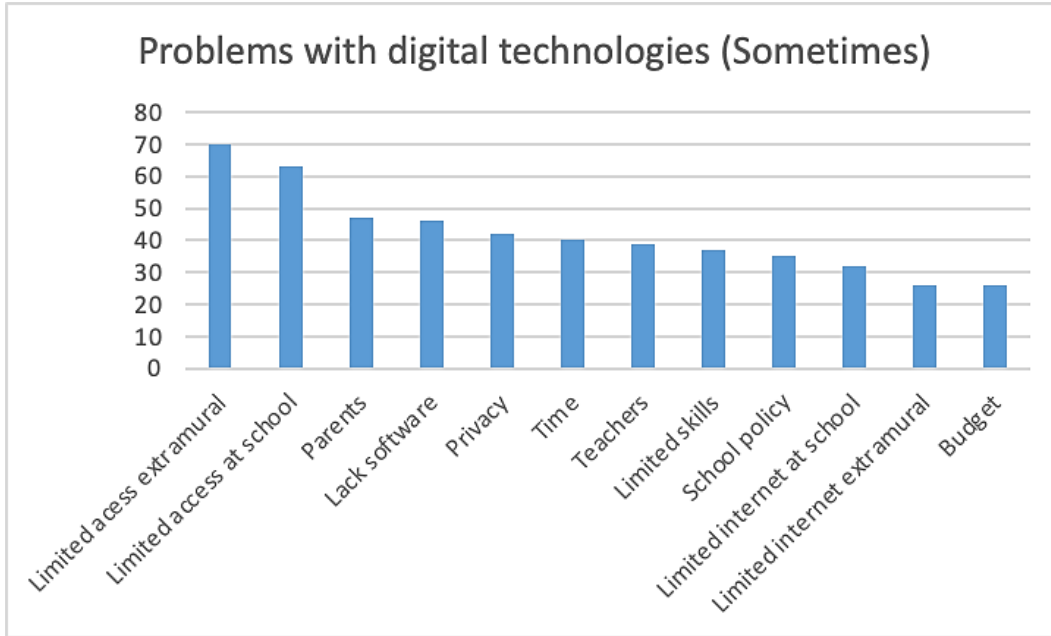bstacle among students was limited access to school. Limited internet extramural was the third most preferred, indicating that students also experience difficulties in accessing the internet at school and at home. In addition, budgeting was seen as an issue in which students had difficulties with technology. Data on privacy, teachers, time, limited skills, school policy, lack of software, and parental factors also showed that there posed various difficulties regarding students' use of technology.

As shown below, situations where the students participating in the survey 'sometimes' experienced problems included, first, limited extramural access. In this case, it is possible to say that students generally experienced difficulties in places other than school. The second most common problem that students 'sometimes' experienced was Internet access. Apart from these, other situations where they 'sometimes' experienced problems included parents, lack of software, privacy, time, teachers, limited skills, and school policy. The two issues with the lowest values were limited internet extramural and budget.

Finally, as seen below, the situations where the students participating in the survey 'never' had any problems were, above all, limited extramural access. It ranked first under the headings 'always', 'sometimes', and 'never' for limited-access extramural. In this case, it is possible to say that the students did not correctly understand this question.

Problems with digital technologies (Always)

Problems with digital technologies (Sometimes)

Problems with digital technologies (Never)
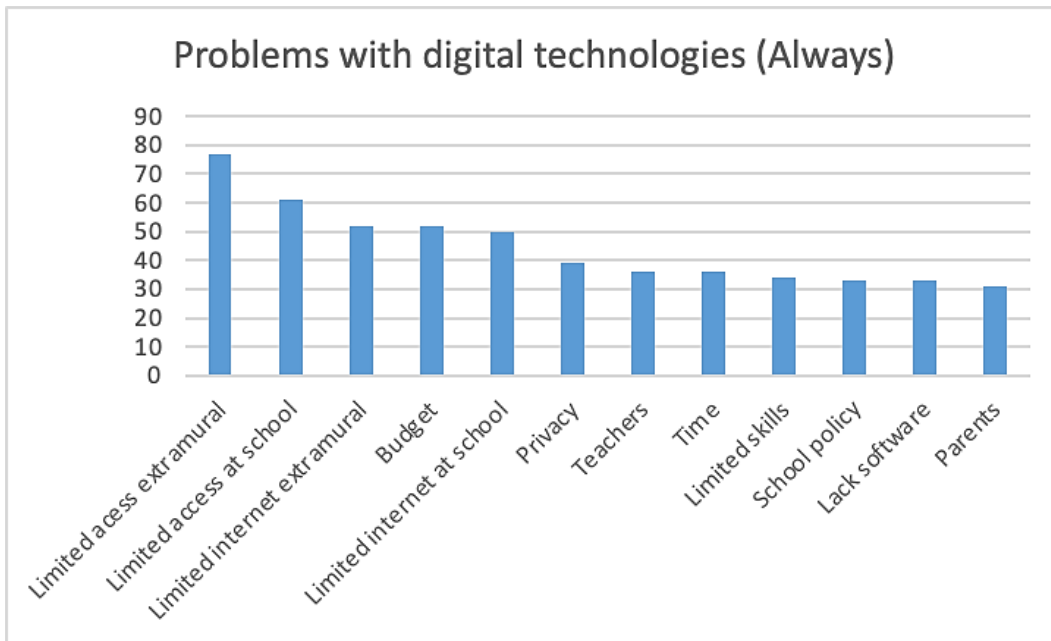
# 2. Digital Literacies Teacher Survey (DLTS): Türkiye

2.1. Introduction

The data-collection process lasted from the beginning of April to the end of May. Participants were selected using snowball sampling after determining the schools where the CLIL method was implemented. The participants were teachers at various universities and colleges. Face-to-face, telephone, and e-mail interviews were conducted with teachers, and in some cases, the survey link and the QR code were sent. A wider audience and more comprehensive sample were reached because of access to schools in different regions. Teachers in Türkiye generally implement the CLIL method for teaching English. The most important step of the CLIL method is to develop and use materials appropriate to the subject in the classroom. The use of the original materials is considered important in the CLIL method (McDougald, 2016). When we look at Türkiye in general, it is seen that, since there is no CLIL program for teachers to implement, teachers generally present different materials and experiences while explaining the subjects.

## 2.2. Summary of main findings

- The majority of teachers surveyed were women and a large proportion were monolingual. The language of instruction used by teachers in schools was generally English. Considering the teachers' experiences, it was seen that it was extensive. It was determined that teachers started their CLIL experiences shortly after they started their teaching careers. English came first among the languages teachers taught through the CLIL approach. Teachers who used the CLIL approach generally preferred it in English lessons. However, they rarely used CLIL in courses other than English. When we looked at the data regarding the main purpose of teachers' CLIL teaching, we found that language and content teaching was a priority.
- It was observed that teachers had different time allocations regarding the use of technology in CLIL lessons. It was determined that most teachers focused more on CLIL lessons and spent less time on non-CLIL lessons.
- According to the findings of questions regarding the use of digital technologies for giving feedback to students, although teachers had a high rate of perceived benefits of use digital tools in CLIL education, teachers had a moderate level of usage of the digital technologies for feedback, and half of the teachers experienced difficulty in using digital tools effectively for the CLIL classes. This showed a mismatch between the perception and active classroom practice of teachers. Teachers also perceived the relevance of the technology to the CDLs highly.
- When it came to exploring the link between CLIL and extramural activities of students' employment rate of resources such as social media, online shopping VR, etc., teachers' perception rate was moderate. It was also found that teachers had weak abilities in providing students with guidance on how to employ digital technologies to improve their CLIL based classes as extramural activity. However, teachers perceived that students were already good at employing digital tools for extramural activities, though teachers were weak in providing guidance to them.
- Finally, teachers were also examined about their awareness level of critical digital literacies in CLIL, and they were found to have a high rate of awareness.

2.3. Participant background

As visible in the pie chart below, most participants indicated that they were female (*N*=12), followed by male (*N*=10). One participant preferred not to say.
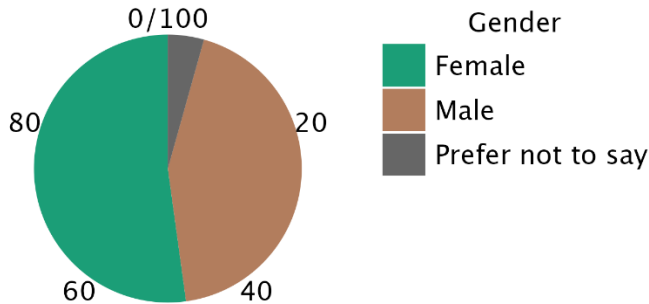
In total, 19 teachers reported to being monolingual and 4 teachers reported to have more than one **first language**.
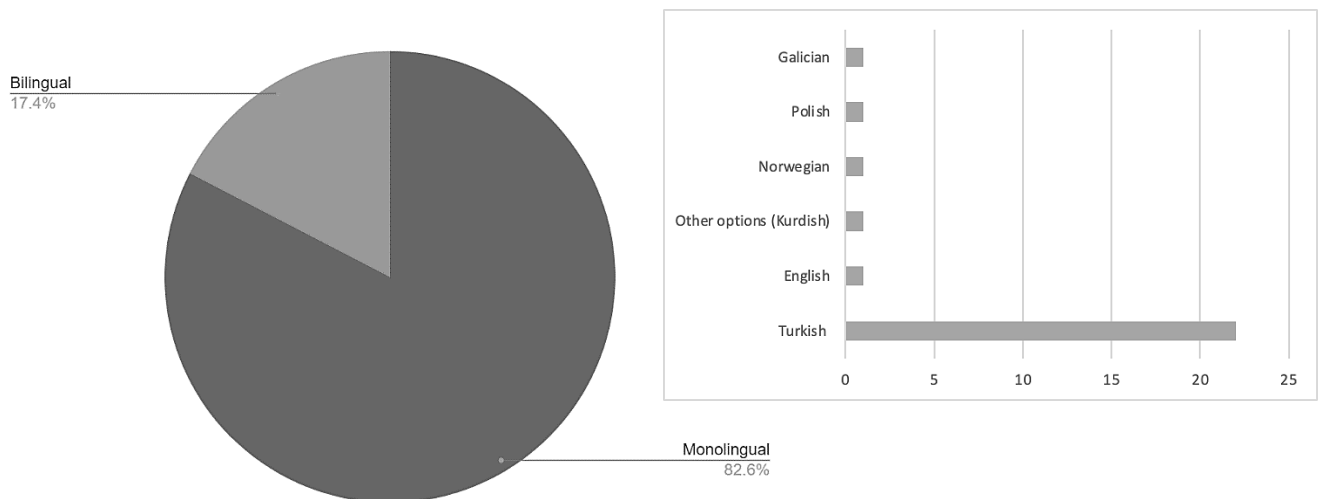
As visible in the chart below, 14 of the 22 teachers reported having English as their primary **language of schooling**. Seven teachers stated that the school's main language was Turkish. One teacher stated that the native language of the school was both English and Turkish. It is understandable that English was a priority language in schools in Türkiye where the CLIL method was used.
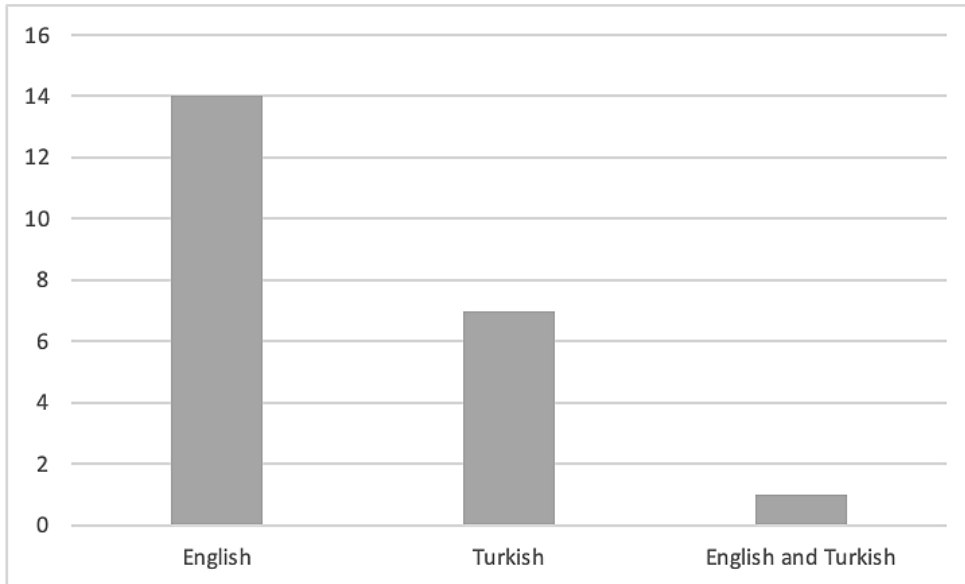
As shown in the following graph, 18 teachers stated that their **main CLIL language** was English. The fact that English is the most widely used foreign language in Türkiye explains this result.

One teacher stated that their main language was Swedish. However, it is not known why this occurred in these data. One person who participated in the study marked 19 options instead of the few options that should have been marked as the main CLIL language. One person was not included in this number because it was estimated that it was done mistakenly.
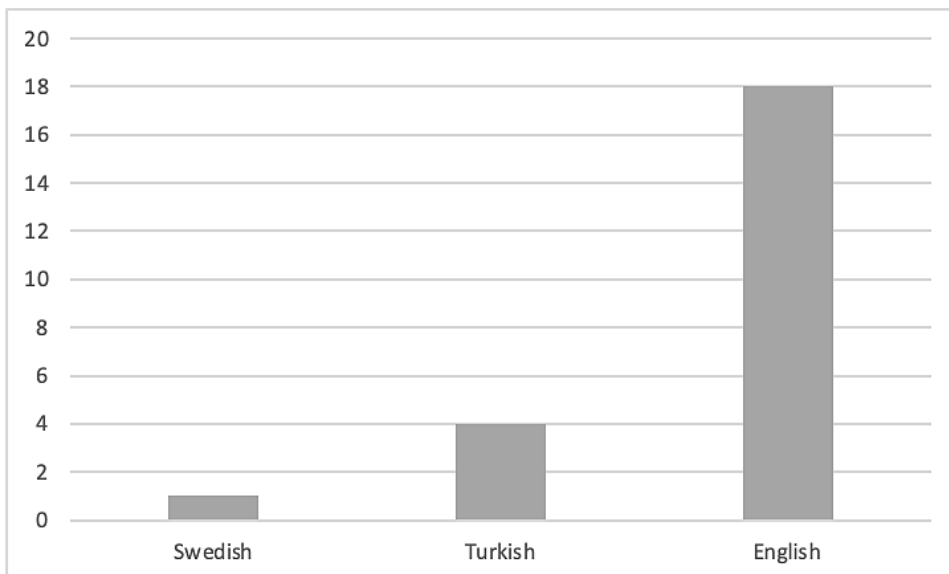
Looking at the histogram below most teachers taught Language and Communication (*N*=20) followed by Technology and ICT, and Society, Environment, and Geography.

Teaching subjects

Subject	Count
Languages and communication	22
Society and environment: Geography	1
Technology and ICT	8
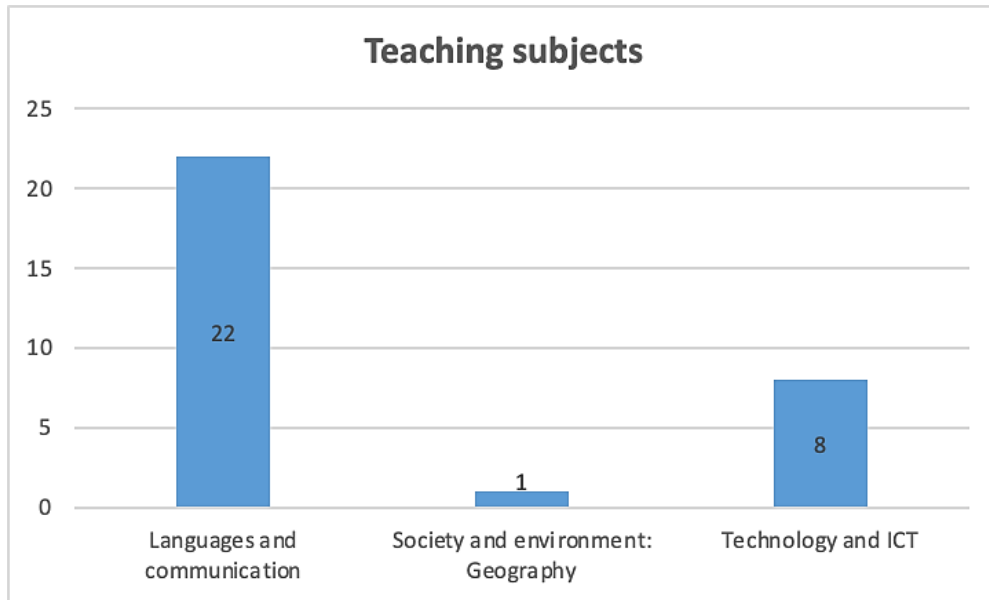
The following graph illustrates the age range of the students. The age range with the most students was the 17-21 age group with 14 students,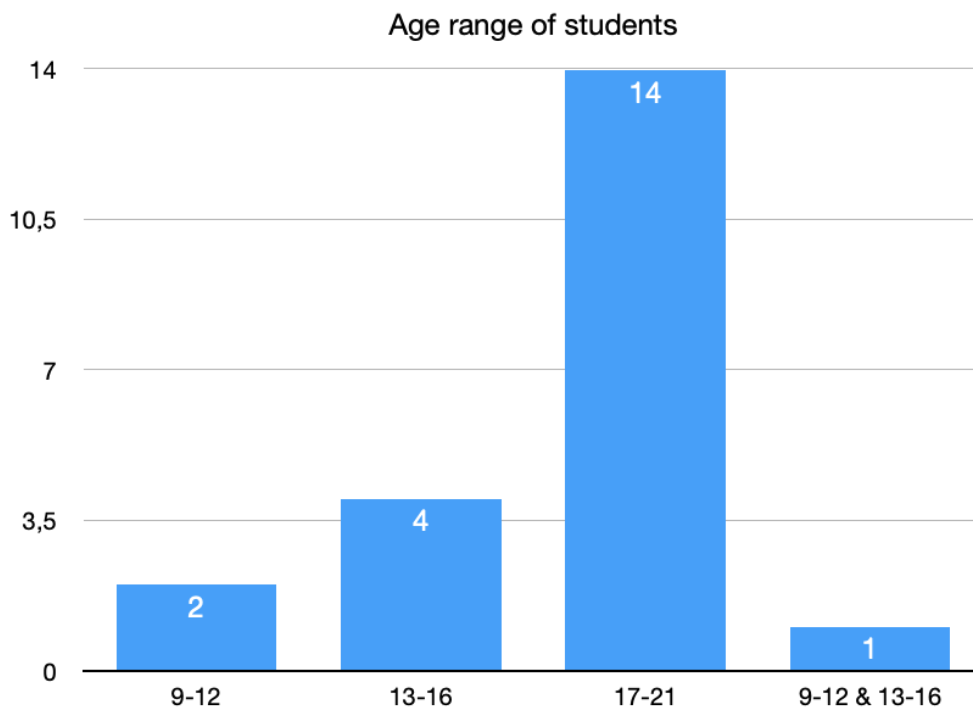 while the groups with the least number of students were the 9-12 and 13-16 age groups, with only one student in this group. This distribution shows that the majority are between the ages of 17-21, and when compared to other age groups, the number of students in this age range is significantly higher.

Age range of students

Age range	Count
9-12	2
13-16	4
17-21	14
9-12 & 13-16	1

As seen in the table below, the average **teaching experience** of teachers was 13 years (*M*=13.30). However, the group was quite heterogeneous, with a standard deviation of 7.51 and an interval of 34 years. As a result, it seems that the Turkish example was a representative depiction of the teaching experience.

Years of teaching experience	
Valid	23
Missing	976
Median	12.000
Mean	13.304
Std. Deviation	7.510
IQR	7.500
Skewness	0.903
Std. Error of Skewness	0.481
Kurtosis	1.965
Std. Error of Kurtosis	0.935
Shapiro-Wilk	0.944
P-value of Shapiro-Wilk	0.221
Minimum	1.000
Maximum	35.000

Considering the participants' **CLIL teaching experience**, they indicated that they have an average of 9.95 years of experience. This number shows that teachers started their CLIL experience approximately four years after starting their teaching careers. Similar to the years of teaching experience in general, the variance was high, with a standard deviation of 7.57.

Years of teaching experience	
Valid	22
Missing	977
Median	9.000
Mean	9.955
Std. Deviation	6.814
IQR	6.750
Skewness	0.953
Std. Error of Skewness	0.491
Kurtosis	0.443
Std. Error of Kurtosis	0.953
Shapiro-Wilk	0.911
P-value of Shapiro-Wilk	0.049
Minimum	1.000
Maximum	27.000

In total, 13 teachers stated that they had attended **CLIL training**, whereas 10 teachers stated that they had not attend any training.
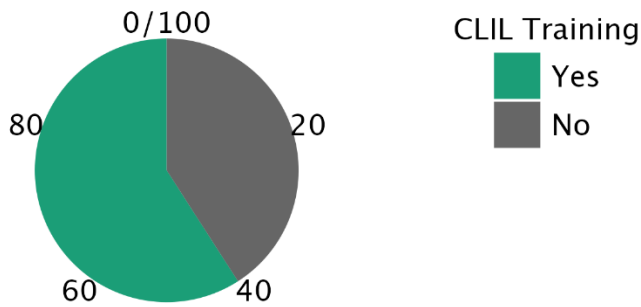
When these results are examined further, it can be seen that the majority of teachers who had CLIL training (*N*=10) chose the postgraduate qualification option, followed by the undergraduate qualification option.
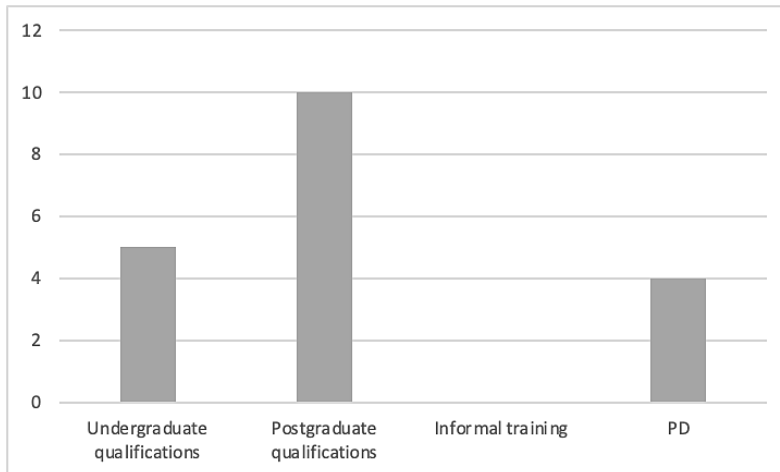
In addition, 14 of the teachers were foreign language teachers and 9 were content teachers. Most of the foreign language teachers taught English. The only other languages taught were Turkish and German.
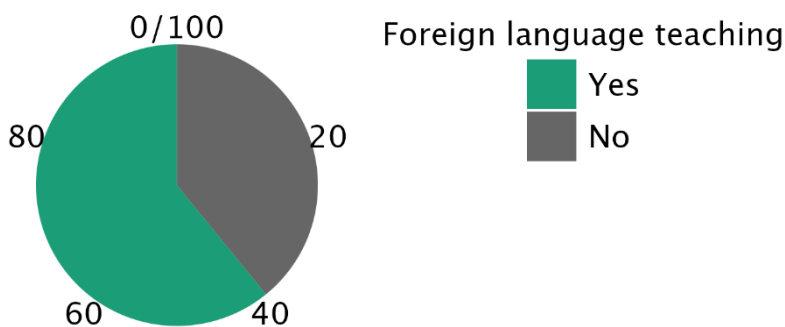
2.4. Participants' CLIL teaching experience

Results showed that teachers used the CLIL method almost infrequently (*N*=1) in courses other than English.
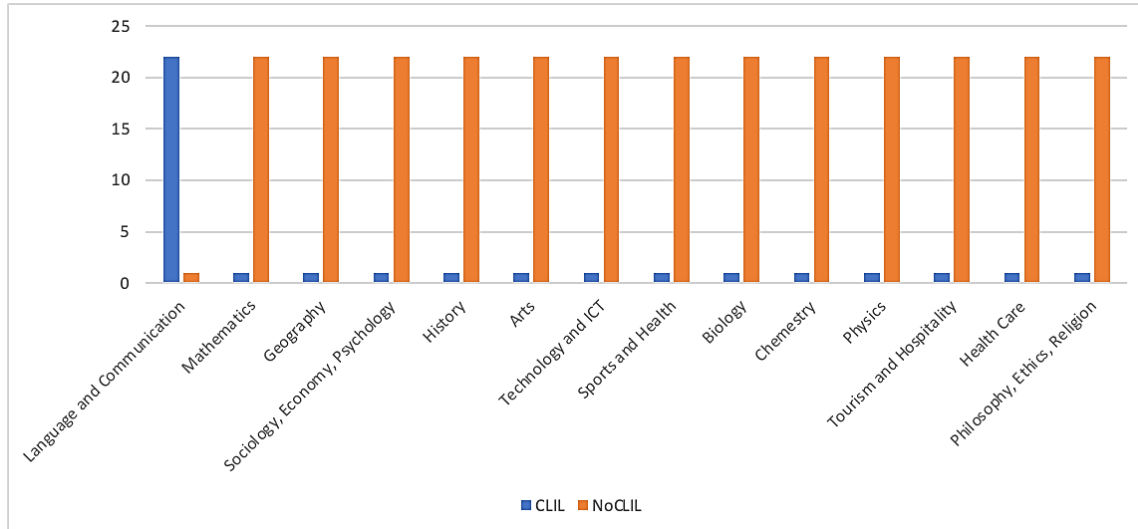
As visible in the table below, the teachers believed that the objective of CLIL teaching was mainly balanced between language and content, with a median value of 24. However, there was a high interquartile range of 75, indicating that teachers varied considerably in their views. The Shapiro-Wilk test of 0.845 with a p-value of 0.003 suggests that the data does not follow a normal distribution.

| Years of teaching experience	
Valid	21
Missing	978
Median	24.000
Mean	39.429
Std. Deviation	37.938
IQR	75.000
Skewness	0.366
Std. Error of Skewness	0.501
Kurtosis	-1.613
Std. Error of Kurtosis	0.972
Shapiro-Wilk	0.845
P-value of Shapiro-Wilk	0.003
Range	100.000
Minimum	0.000
Maximum	27.000

Regarding **language use in CLIL lessons**, the Shapiro-Wilk test indicated a normal distribution, but the Q-Q plot, skewness, and kurtosis indicated a non-normal distribution. Consequently, a description of the interquartile range and median are given. The majority of participants appeared to have a tendency to take a certain stance on the matter, based on the median score of 72.5. Conversely, the interquartile range of 49.75 indicated a significant level of response variability and that participants' perspectives on this issue were fairly divided. This was given additional weight by the wide range of answers, which reflects a wide range of opinions from one extreme to the other.

Years of teaching experience	
Valid	22
Missing	977
Mode	100.000
Median	72.500
Mean	70.045
95% CI Mean Upper	84.097
95% CI Mean Lower	55.994
Std. Deviation	31.691
IQR	49.750
Skewness	-0.836
Std. Error of Skewness	0.491
Kurtosis	-0.438
Std. Error of Kurtosis	0.953
Shapiro-Wilk	0.854
P-value of Shapiro-Wilk	0.004
Range	100.000
Minimum	0.000
Maximum	100.000

2.5. Participants' school environment

As can be seen in the graph below, the majority the **school language** was Turkish (*N*=18). This may be because the mother tongue in Türkiye was Turkish. Another three teachers stated that their school language was English. In this case, it could be considered that as was the native language in schools where the CLIL method was used. The Arabic (*N*=1) answer can be accepted as a potentially correct answer because it was the native language in certain regions of Türkiye, but the Danish (*N*=1) answer is thought to have been given by mistake.

Main language of schooling
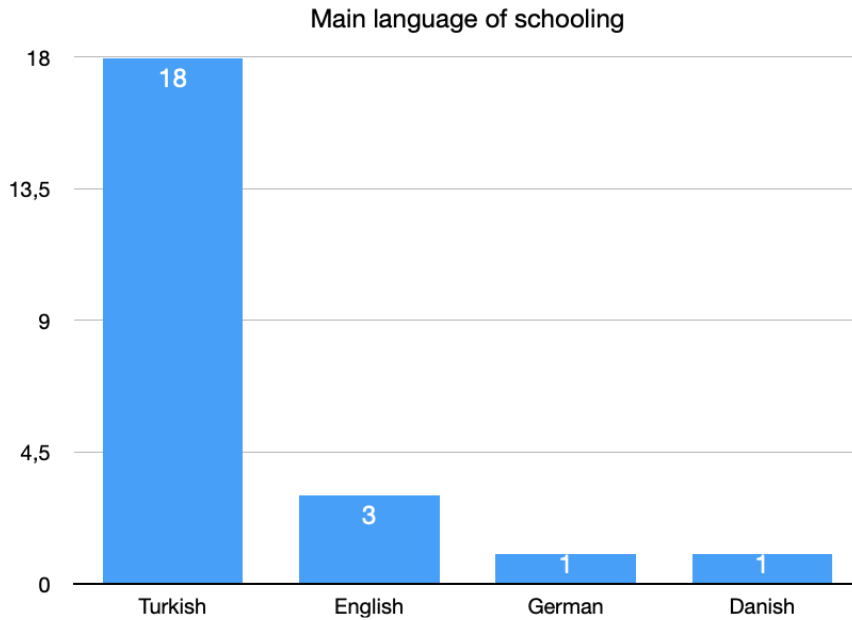
Looking at the **bi/multilingual background**, data analysis revealed that the variable was not normally distributed. On average, teachers reported that 26% of the students in their school came from a bi-/multilingual backgrounds. However, the interquartile range was high (*IQR*=30,75), pointing at a heterogeneous answer sample, which can be seen in the boxplot below as well.
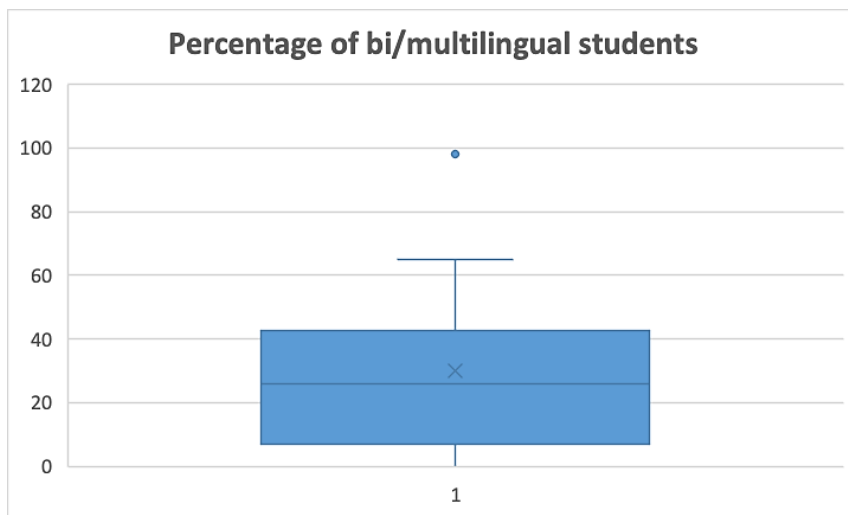
2.6. Use of digital tools in CLIL

According to the data, teachers tended to use mobile phones for **both personal and educational purposes**. Out of a total of 22 answers, 19 teachers used mobile phones for both personal and educational purposes, while only 3 teachers used them for personal use. This indicates that mobile phones were widely used in educational environments. Similarly, laptops were common in both personal and educational contexts. This indicates that laptops play an important role in education. Desktop computers were primarily used for educational purposes.

Although tablets were mostly used for educational purposes, they were preferred for personal use. Of the 17 responses, 9 teachers used tablets for both personal and educational purposes, 5 for personal use only, and 3 for educational purposes only. Game consoles, smart watches, e-book readers, and Smart TVs were mainly used for personal purposes.

Use of technical devices
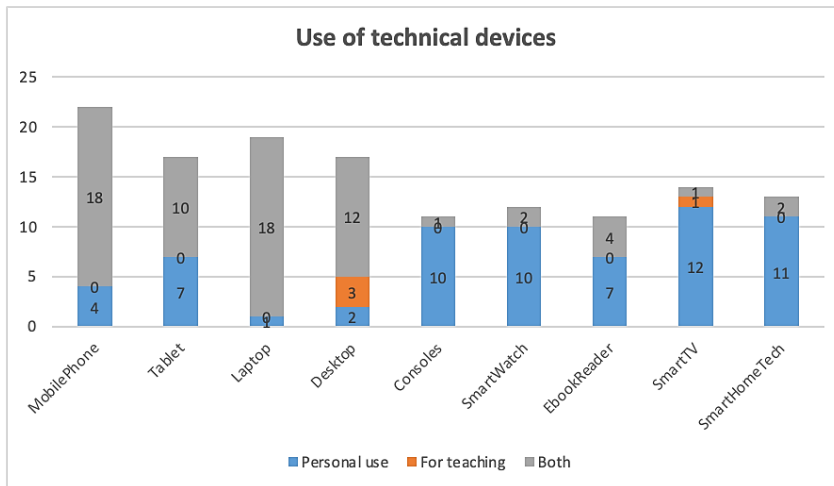
As shown in the graph below, at the highest usage rates of digital tools **in the classroom** we can find electronic books. VR and AR technologies, multiplayer games, virtual learning platforms, online shopping, digital reading devices, and single-layer games were the least used digital devices in the classroom. In this case, it could be said that some devices were preferred in the class and some others were rarely preferred.

Digital technology in main CLIL language
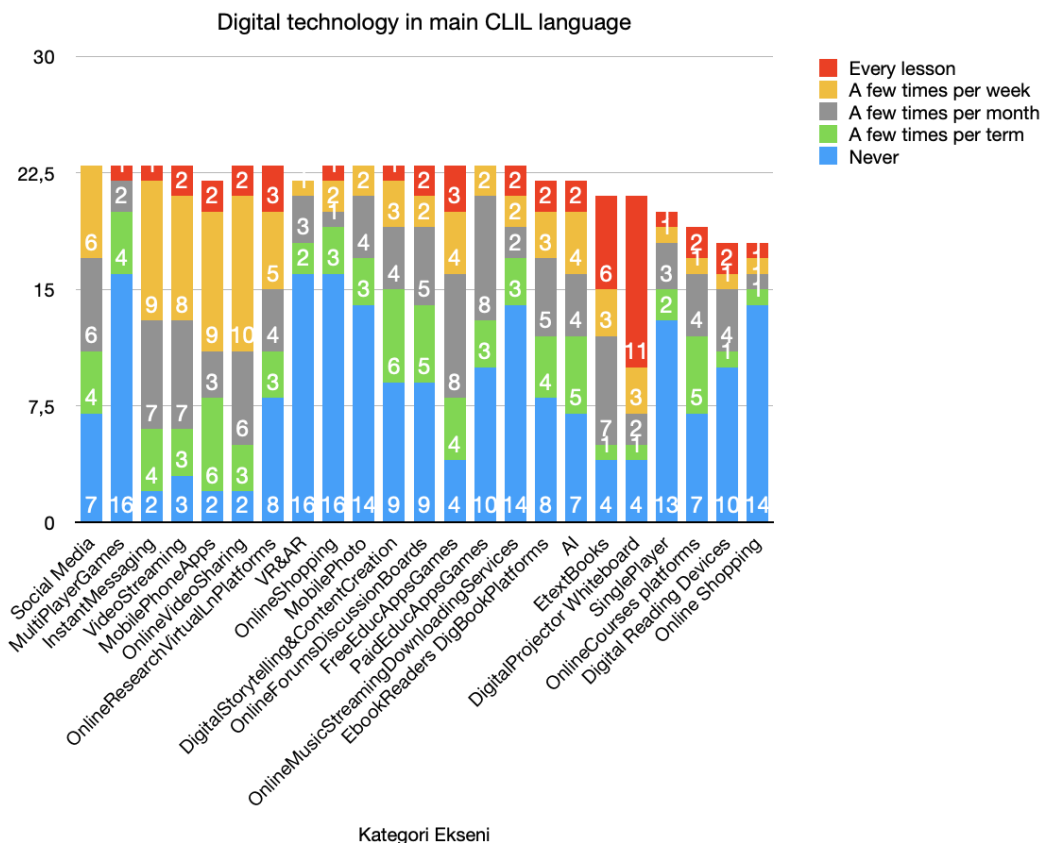
According to the following data, the time teachers spent on **digital technology in CLIL lessons** varied widely. The median value in the dataset (20 minutes) showed that the majority of teachers used digital technology for an average of approximately 20 minutes per lesson. However, the standard deviation (14.89 min) showed how scattered the data were and that some teachers used much less or much more digital technology. Based on this data, we could say that the duration of teachers' use of digital technology in CLIL lessons was generally of around 20 minutes per lesson, but it seemed that some teachers kept this time longer or shorter.
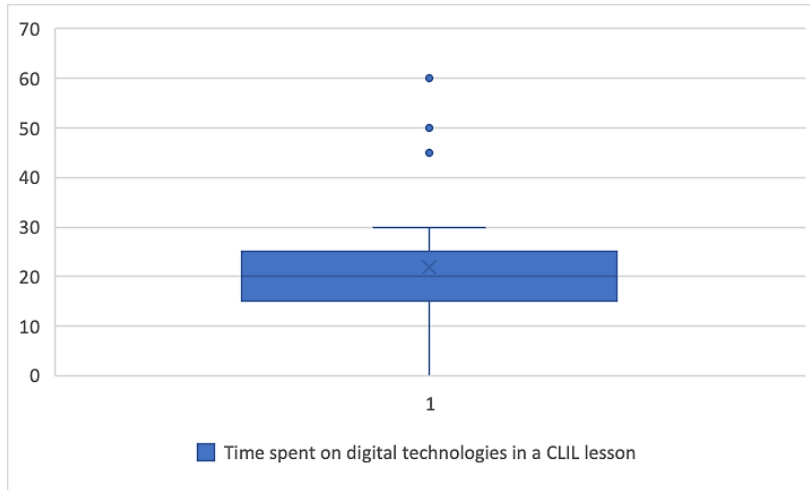
As the pie chart below shows, most teachers were specialist teachers who only taught CLIL subjects, with the number of teachers teaching **non-CLIL subjects** being in the minority.
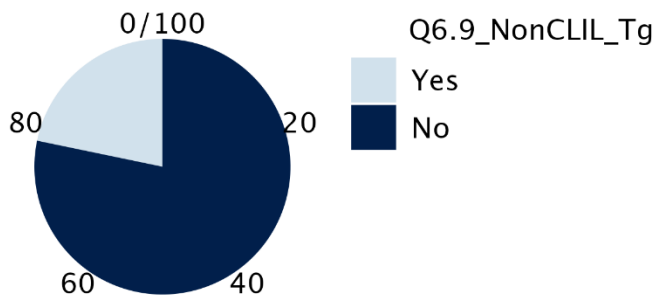
The following statistics describe the distribution of the **time teachers spent using technology** in class. For example, the median value is 48,500 minutes, indicating that teachers generally spend less on lessons than this value, while the standard deviation value was 26,006 minutes, showing how variable the data were and that some teachers spent longer hours than others.

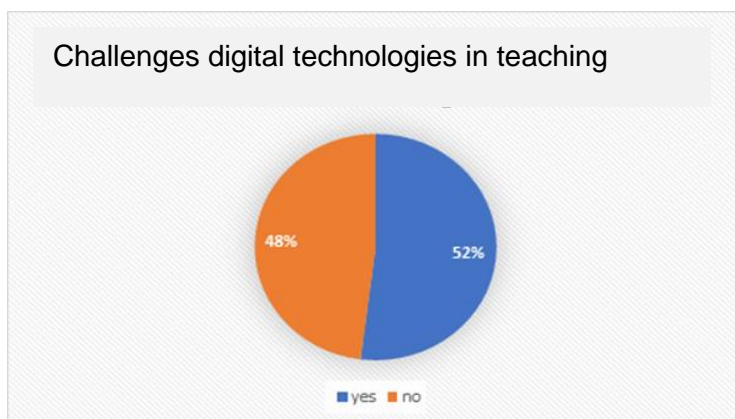| Use of digital technologies in CLIL vs non-CLIL classes	
Valid	4
Missing	995
Mean	38.500
Std. Deviation	26.006
IQR	16.500
Minimum	0.000
Maximum	57.000

2.7. Teachers' competencies and challenges

In this sub-category of the scale, teachers were asked about their feedback practices and the kinds of digital technologies that they employ. They were asked about the practices of e-mail, mobile phones, social media, etc. According to the valid participant number, the participant teachers' employment rate of digital tools for feedback was moderate (M=2.827), which is rather close to positive.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Statement 1	22	1,00	4,00	2,6818	,89370
Statement 2	22	1,00	4,00	2,8182	,85280
Statement 3	20	1,00	4,00	2,8500	,87509
Statement 4	20	1,00	4,00	2,9500	,88704
Statement 5	20	1,00	4,00	2,7000	,92338
Statement 6	20	1,00	4,00	2,8500	,93330
Statement 7	20	1,00	4,00	2,9500	,88704
Valid N (listwise)	20			2,827	

As represented in the pie chart, which informs us about the teachers' experiences of **challenging factors** while utilizing the digital technologies, nearly half of the teachers (52%) experienced difficulties while using digital technologies in their CLIL teaching and giving feedback.

Challenges digital technologies in teaching

48% 52%

■ yes ■ no

2.8. Teachers' perceptions of digital technologies in CLIL

Teachers were asked to reflect on their agreement with the application of digital technologies' employment in CLIL education. The descriptive quantitative data analysis findings showed that teachers severely agreed (N=22, M=4.17) with the benefits of employing digital technologies in CLIL education.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Statement 11	22	1,00	5,00	3,8750	1,22696
Statement 12	22	3,00	5,00	4,3636	,58109
Statement 13	22	2,00	5,00	4,2727	,93513
Valid N (listwise)	22			4,170	

The following histogram showed that participant teachers were highly in the opinion of (N=22, M=3.43) significant place of digital technologies employment in CLIL class planning.
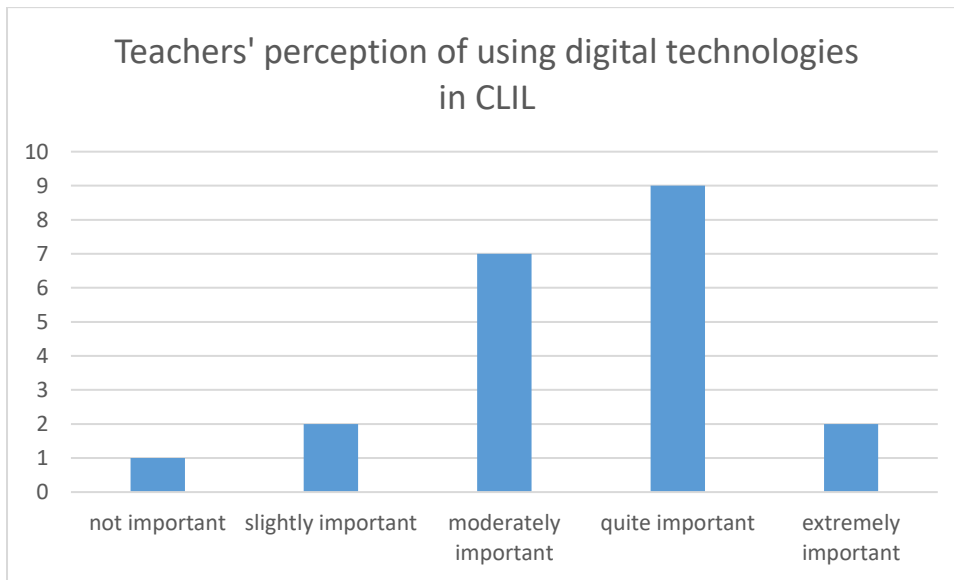
Teachers (N=19) were asked to reflect on the issue of the **relevance of technology for CDLs or skills**, and it was found that teachers' ideas fluctuated around M=60.157, which was accepted as average. The mean value showed that teachers did not believe the link between technology employment and CDLS in CLIL.

Descriptive Statistics

|	N	Minimum	Maximum	Mean	Std. Deviation
Relevance of technology for CDLS or skills	19	18,00	100,00	60,1579	33,66050
Valid N (listwise)	19				

28

2.9. Students' digital competencies: teachers' perceptions

Teachers' perceptions (*N*=23) were investigated regarding the frequency of **discussion on technology** employment as extramural activity via a Likert-type question ranging from 'never' to 'always'. Descriptive data analysis showed that teachers 'sometimes' (*M*=3.087) discussed students' technology utilization as extramural activity.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
How frequent you discuss about technology usage for extramural act.	23	1,00	5,00	3,0870	1,08347
Valid N (listwise)	23				
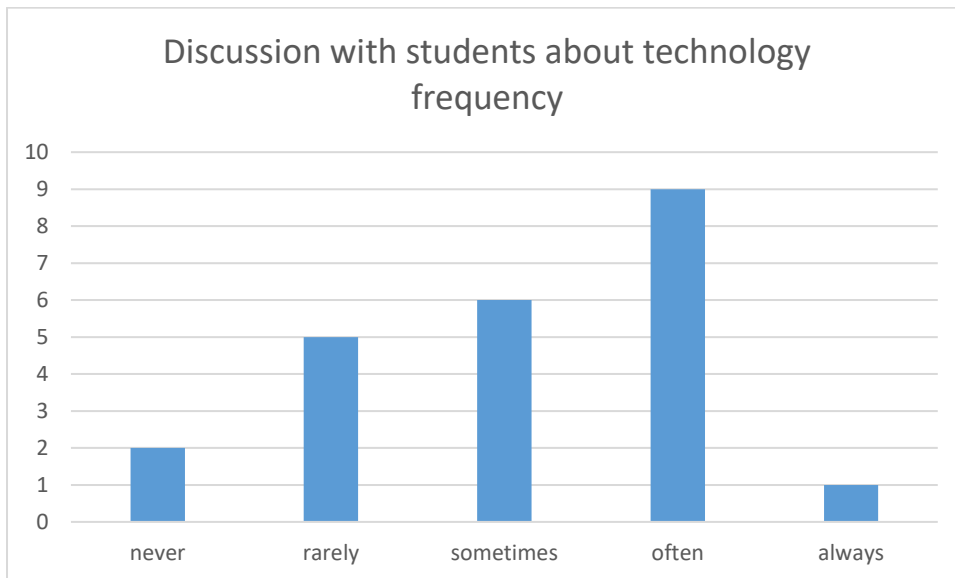
In the same vein, teachers (*N*=21) were asked whether they made an explicit link between the discussion on extramural activity and CLIL, and the descriptive quantitative findings showed that most of the time teachers made a direct link between CLIL and extramural activities (*M*=3.142).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Explicit link between CLIL and extramural act.	21	1,00	5,00	3,1429	1,19523
Valid N (listwise)	21				

The histogram below supports the descriptive findings and makes them more visible.

Teacher makes explicit link between discussion and CLIL learning

Category	Value
never	2
rarely	4
sometimes	7
often	5
always	3
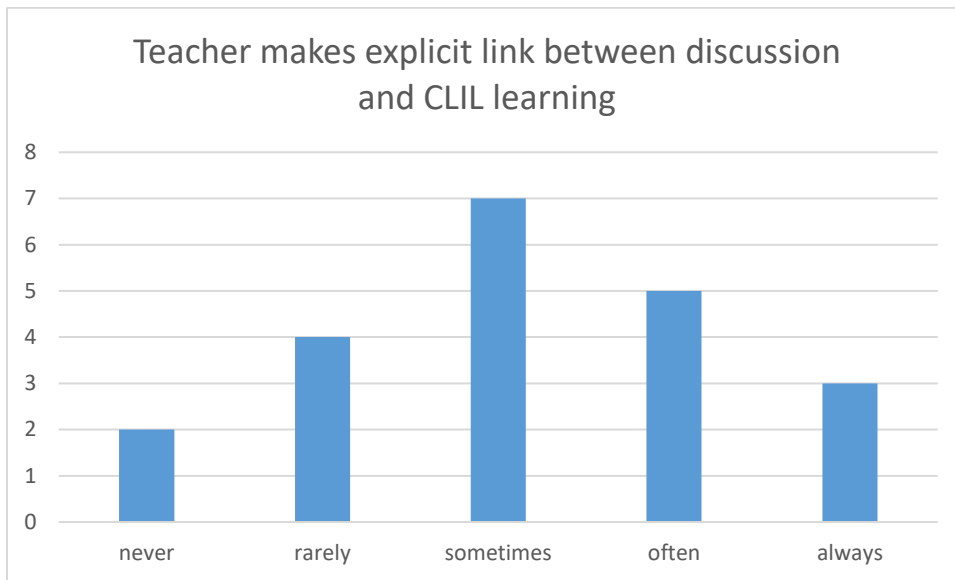
Next, we aimed at examining teachers' **guidance on employing digital technologies outside of the classroom**, and the findings showed that participant teachers (*N*=22) did not present guidance to students on employing digital technologies outside of the classroom (*M*=2.68).
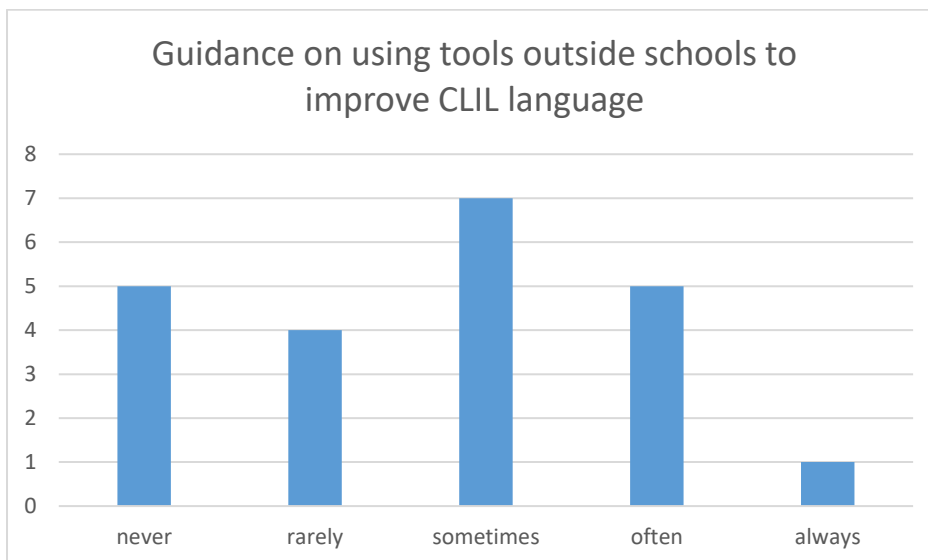
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Guidance on employing technology outside of the classroom	22	1,00	5,00	2,6818	1,21052
Valid N (listwise)	22				

The histogram supports the findings of the descriptive statistics and implies that guidance on employing digital technologies is moderate (*M*=2.68).

Guidance on using tools outside schools to improve CLIL language

Category	Value
never	5
rarely	4
sometimes	7
often	5
always	1

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

The table below describes the extramural use of digital technologies of the age group of 9-12 according to the teachers' perception.

The statistical findings showed that teachers (N=24, M=1.957) thought that students used all kinds of digital technologies via various platforms ranging from social media platforms to online shopping sites (e.g., E-commerce platforms like Amazon, eBay, and various websites).

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Social Media	24	1,00	2,00	1,9167	,28233
Gaming	24	1,00	2,00	1,8750	,33783
Instant Messaging	24	1,00	2,00	1,9167	,28233
Video streaming	24	1,00	2,00	1,9167	,28233
Mobile apps	24	1,00	2,00	1,8750	,33783
Online sharing	24	1,0	2,0	1,8705	,3378
Online research	24	1,00	2,00	1,9583	,20412
VR & AR	24	1,00	2,00	1,9583	,20412
Online shopping	24	1,00	2,00	1,9583	,20412
Mobile photo	24	1,00	2,00	1,9167	,28233
Digital content	24	1,00	2,00	1,9583	,20412
Online board	24	1,00	2,00	1,9583	,20412
Educational games	24	1,00	2,00	1,9583	,20412
Online streaming	24	1,00	2,00	1,9583	,20412
E-book reader	24	1,00	2,00	1,9583	,20412
AI	24	1,00	2,00	1,9583	,20412
Valid N (listwise)	24				

2.11. The teaching of Critical Digital Literacies in CLIL

Finally, we wanted to explore participant teachers' **awareness level of Critical Digital Literacies** in CLIL. Out of 22 teachers, 64% (N=14) were aware of them.

Awareness of critical digital literacies
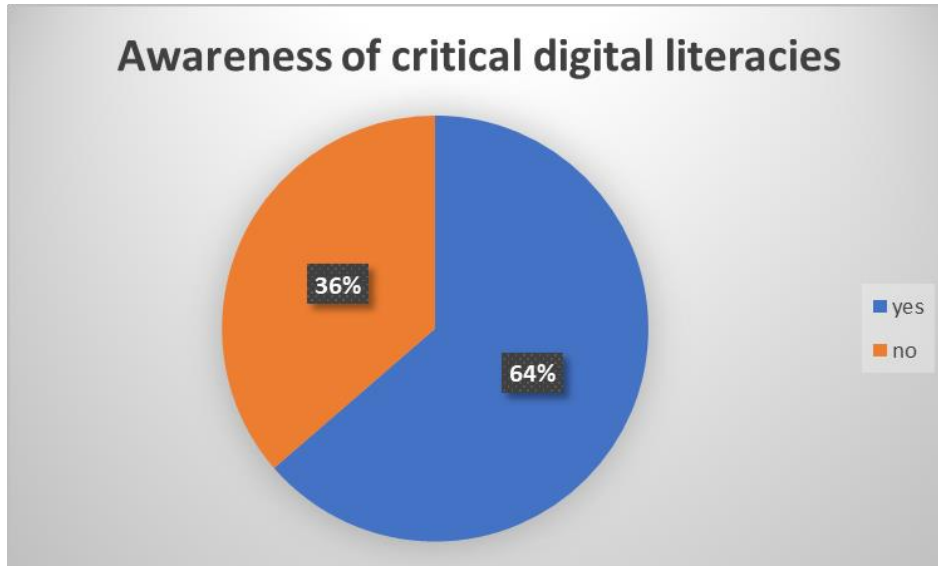
Teachers' awareness of critical digital literacies in CLIL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	14	1,4	63,6	63,6
	NO	8	,8	36,4	100,0
	Total	22	2,2	100,0	
Missing	System	978	97,8		
Total		1000	100,0		

A follow up question was responded by those participants who selected the 'yes' option for the item just described (N =13) and had the objective of discovering the **frequency of utilization of CDLs** in CLIL teaching. The statistics values proved that teachers' usage of CDLS in their CLIL practices did not fluctuate around the minimum and maximum values, they all intensify around the M=3.50, which would equal a representation of 'sometimes'.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q9_3_1	14	2,00	5,00	3,5714	1,01635
Q9_3_2	13	2,00	5,00	3,3077	,94733
Q9_3_3	13	2,00	5,00	3,1538	,89872
Q9_3_4	13	2,00	5,00	3,3846	,86972
Q9_3_5	13	2,00	5,00	3,7692	,83205
Q9_3_6	13	2,00	5,00	3,7692	,83205
Q9_3_7	13	2,00	4,00	3,0769	,75955
Q9_3_8	13	2,00	5,00	3,6154	,86972
Valid N (listwise)	13				

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References

McDougald, J.S. (2016). CLIL approaches in education: Opportunities, challenges, or threats?, *Latin American Journal of Content and Language Integrated Learning*, *9*(2), 253-266. http://dx.doi.org/10.5294/laclil.2016.9.2.1

33