

CHAPTER 4

EXPLORING DATA: INTERPRETATIONS AND ANALYSIS

The research aims to understand the feasibility of mobile-assisted language learning (MALL) for the learning of the English language and its effectiveness in producing results. The chapter evaluates the efficacy of digital teaching and learning of the English language through MALL based on responses provided by the English language teachers in colleges, institutes, and universities in the Gujarat state. The responses were collected through a checklist-cum-questionnaire and interviews. The results of the study are presented in this chapter with explanations, data tables, graphs, bar charts, pie charts and statistical reports. The findings analyse the opinions and attitudes of the respondents towards teaching and learning of the English language through mobile-assisted language learning. The study also documents the teachers' suggestions regarding the potential areas for further research.

As a part of the study, teachers were selected arbitrarily for the questionnaire and interview. The responding teachers belonged to the Arts, Commerce, Science, and Technology streams and taught English. A total of 302 teachers from colleges and universities in Gujarat shared their responses to the questionnaire, which was distributed through a Google form. Ten teachers were interviewed via phone calls and in person. The study incorporates both quantitative and qualitative analysis, presented in the following methods:

- Descriptive analysis and interpretation of quantitative data with statistical tools using Microsoft Excel.
- Comparative analysis and interpretations of quantitative data.
- Qualitative analysis and interpretations of open-ended personal interviews.

4.1 Quantitative Analysis

The questionnaire method involved quantitative data analysis in this study. The participants for quantitative data analysis were English language teachers teaching in colleges and universities in the Gujarat state. The number of participants for the questionnaire was 302 from universities in Gujarat. After data collection, it was analysed in tabulation with charts and graphs. The analysed data will be discussed in five sections:

- Personal information of the participants: The basic information of their background.
- Teaching and learning patterns using MALL.
- Online teaching and learning framework.
- The role of Covid-19 in Ubiquitous English language learning.
- The role of educational institutes in online/mobile classes and for MOOC learning.

4.2 Analysis of Section One: The Background Information of the Participants

Background information of the participants was subjected to analysis using tabulation forms accompanied by charts. This essential data encompasses gender, age, teaching experience, and the institutional domain, covering colleges, institutions, and universities.

4.2.1 Gender

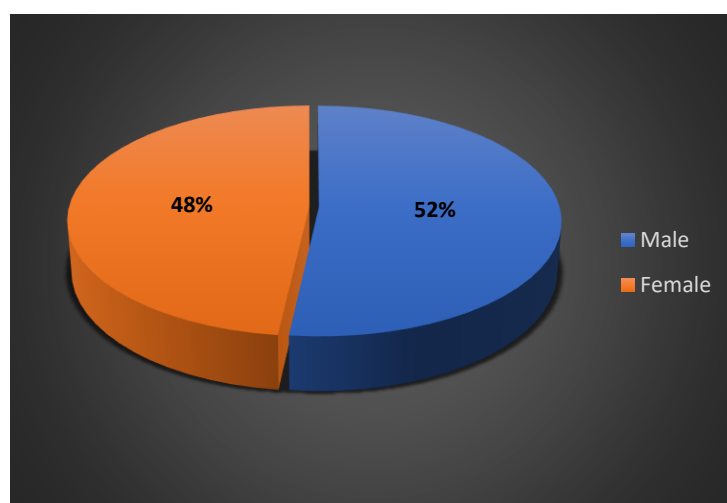


Chart 4.2.1: Gender

Gender	Count of Gender	Percentage
Male	157	52%
Female	145	48%

Table 4.2.1: Gender

The data was collected from a total of 302 respondents, as illustrated in **Table 4.2.1**. The responses are evenly distributed based on the gender, indicating a balance in the representation of tutors according to their gender profiles. This balance underscores the absence of gender bias in the research. The distribution of participants' gender is presented in both Table **4.2.1** and **Chart 4.2.1**.

4.2.2 Age

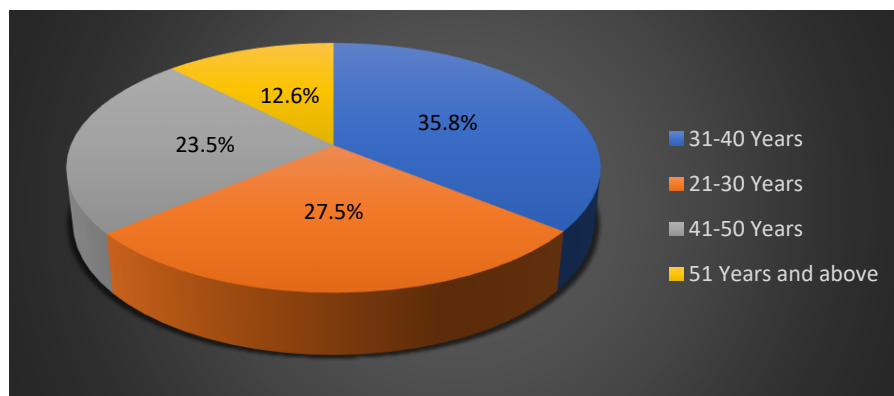


Chart: 4.2.2: Age

Age	Count of Age	Percentage
21-30 Years	84	28%
31-40 Years	108	36%
41-50 Years	72	24%
51 Years and above	38	13%

Table: 4.2.2: Age

Data collection involved gathering insights from faculty members across various age groups to comprehensively understand the perspectives of teachers from different demographics. The collected data has been categorized into four

distinct age groups, as presented in **Table 4.2.2**, and visualized in **Chart 4.2.2**. The segmentation of data based on age groups is crucial for the comparative analysis of the checklist cum questionnaire within the thesis.

The age groups are delineated in a manner that effectively captures the opinions of individuals belonging to each decade. The viewpoints of individuals from the Boomer generation, GenX, Millennials, and GenZ are thoroughly considered, irrespective of their specific age bracket.

4.2.3 Teaching Experience

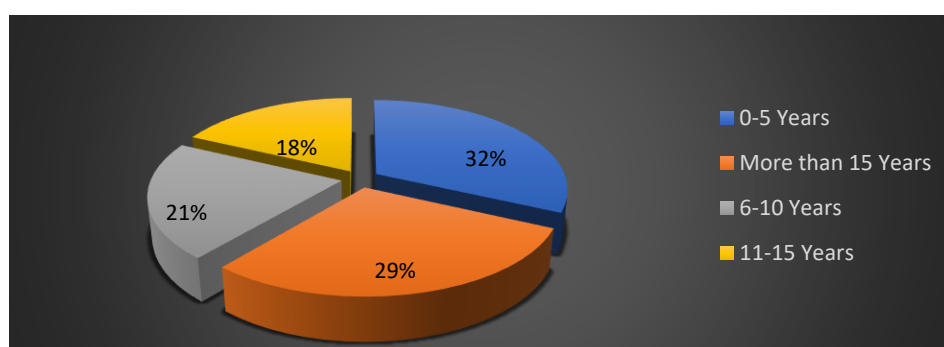


Chart: 4.2.3: Experience

Teaching Experience	Count of Teaching Experience	Percentage
0-5 Years	96	32%
6-10 Years	63	21%
11-15 Years	54	18%
More than 15 Years	89	29%

Table: 4.2.3: Experience

The collected data encompasses faculties from diverse age groups, including individuals with varying years of professional experience. The experience levels have been categorized into four distinct types, as illustrated in **Chart 4.2.3**, and detailed in **Table 4.2.3**. Specifically, 32% of the faculties possess 0-5 years of experience, 21% have 6-10 years of experience, 18% have 11-15 years of experience, and 29% have 15 years or more of experience.

The consideration of faculty experience is crucial in the thesis as it provides valuable insights into mobile learning practices. The range of experience levels, from those who have recently entered the profession to those with several years of experience, contributes to a deeper understanding of the dynamics within the teaching community regarding mobile learning.

4.2.4 Area of the Institution

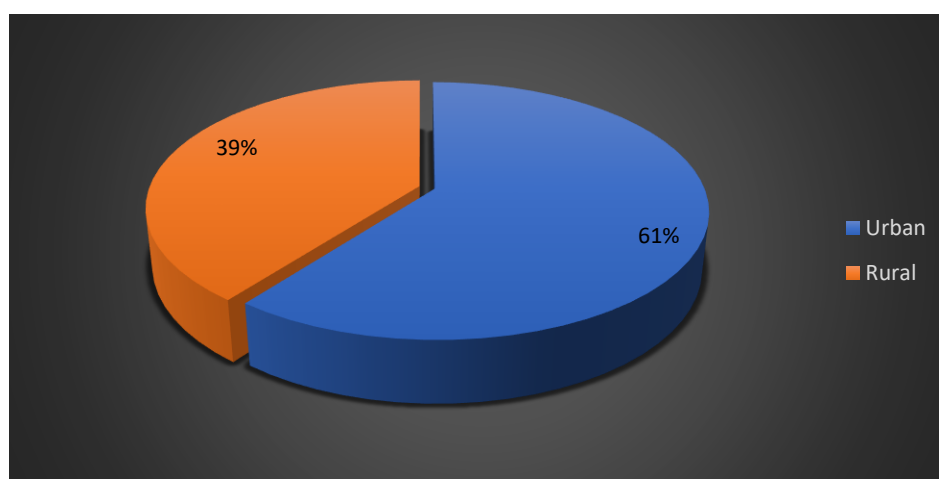


Chart 4.2.4

Area of the Institution	Count	Percentage
Urban	183	61%
Rural	119	39%

Table: 4.2.4: Area

The data collection process included participants from both rural and urban areas, as illustrated in **Chart 4.2.4** and **Table 4.2.4**. Out of the total collected data, 183 responses were from urban areas, constituting 61%, while 119 responses were from rural areas, making up 39% of the total dataset. The segmentation based on geographical locations serves the purpose of comparing and comprehending the perspectives of teachers from both urban and rural areas concerning mobile learning. The aim is to explore whether mobile learning practices exhibit variations between these distinct geographical contexts.

4.3 The Teaching and Learning Patterns Using Mobile-Assisted Language Learning (MALL)

Teachers were surveyed on diverse aspects related to mobile learning, digital devices, digital platforms, MOOC learning, and mobile learning practices during the Covid-19 lockdown, along with its impact on English language learning. The teachers were provided with a checklist cum questionnaire format, where they could mark appropriate responses. The collected responses underwent thorough analysis, including both close-ended and comparative analyses.

While the checklist-cum-questionnaire predominantly featured close-ended questions, teachers were encouraged to provide relevant suggestions to gain insights into their personal opinions. The subsequent section comprises 11 questions designed to comprehend the teaching and learning patterns within the context of the English language.

4.3.1 Digital Devices

Digital devices used by tutors for the teaching and learning of the English language:

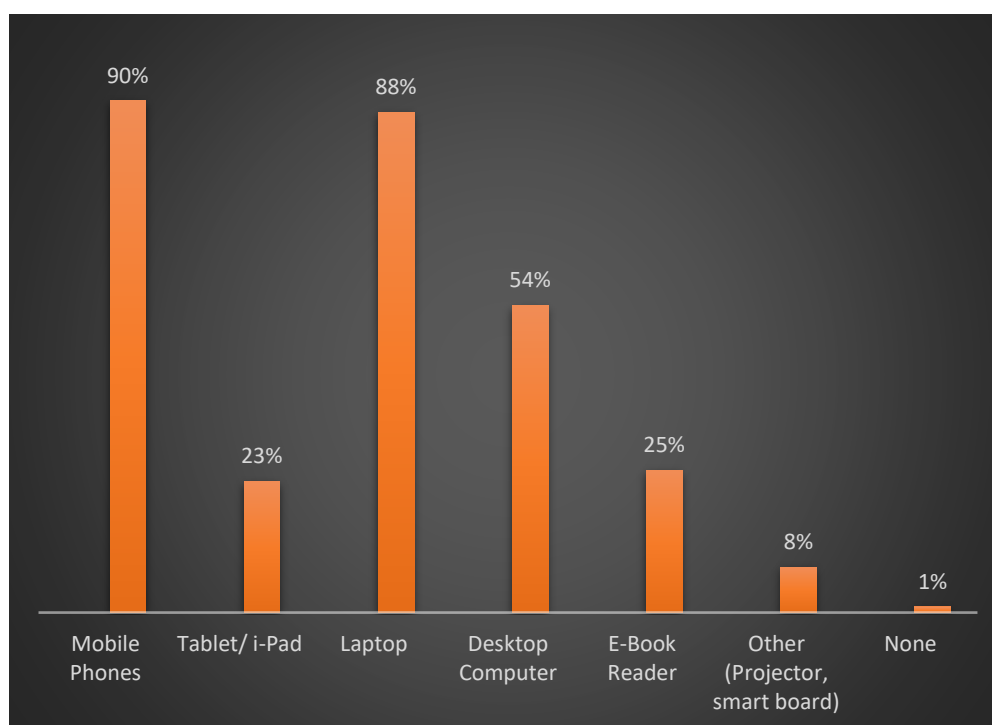


Chart 4.3.1: Digital Devices

Digital Devices	Total %
Mobile Phones	90%
Laptop	88%
Desktop Computer	54%
E-Book Reader	25%
Tablet/ I-Pad	23%
Other (Projector, smart board)	8%
None	1%

Table: 4.3.1: Digital Devices

Chart 4.3.1 and **Table 4.3.1** illustrate the usage of digital devices among teachers for their teaching and learning practices. The data reveals that 90% of teachers incorporate mobile phones into their daily practices, 88% use laptops, 54% utilize desktop computers, 25% employ e-book readers, 23% opt for tablets/iPads, 8% utilize other devices, and a minimal 1% of respondents do not use any digital device.

The predominant use of digital devices is evident, with mobile phones emerging as the most widely used device for learning purposes, “today’s technology’s adaptability and non-intrusive character make learning more appealing to the next generation” (Haleem et al. 284). The high usage rate of mobile phones, totalling 90%, underscores the comfort and convenience that teachers find in utilizing this device for teaching and learning the English language. Furthermore, laptops are also prevalent, being employed by 88% of the respondents. The minimal 1% of teachers not using any digital devices indicates the widespread adoption of technology in English language teaching.

Moreover, 8% of teachers reported using additional devices such as projectors, smart boards, Bluetooth speakers, smart TVs, and digital pads alongside the primary digital devices mentioned earlier. The fact that 90% of teachers incorporate mobile phones into their daily teaching and learning practices further reinforces the notion that mobile phones are one of the most convenient options for teaching and learning the English language.

Rural and Urban

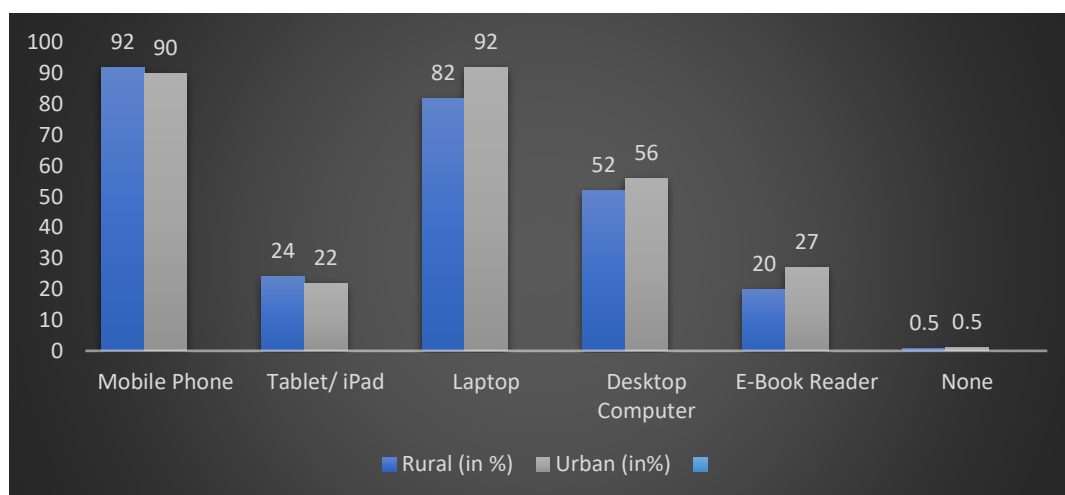


Chart 4.3.1-A: Digital Devices – Rural and Urban

Digital Devices	Rural (in %)	Urban (in %)
Mobile Phone	92	90
Laptop	82	92
Desktop Computer	52	56
Tablet/ iPad	24	22
E-Book Reader	20	27
None	0.5	0.5

Table: 4.3.1-A: Digital Devices – Rural and Urban

Age Wise Distribution

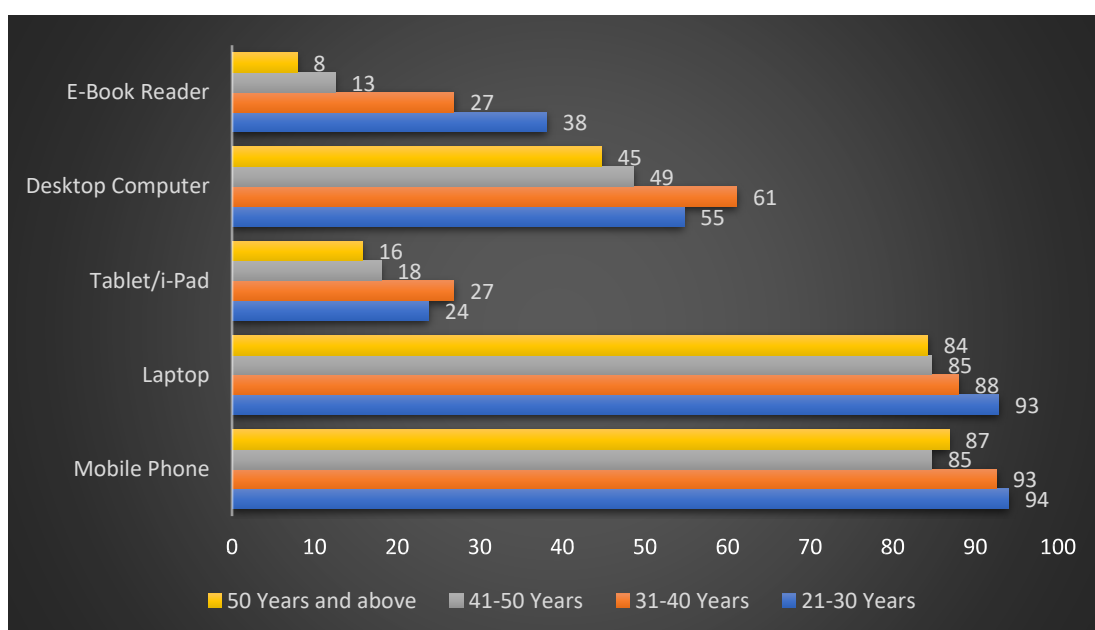


Chart 4.3.1-B: Digital Devices – Age

Digital Devices	21-30 Years	31-40 Years	41-50 Years	51 years+
Mobile Phone	94	93	85	87
Laptop	93	88	85	84
Desktop Computer	55	61	49	45
E-Book Reader	38	27	13	08
Tablet/ i-Pad	27	27	18	16

Table: 4.3.1-B: Digital Devices – Age

i) Experience Wise Distribution

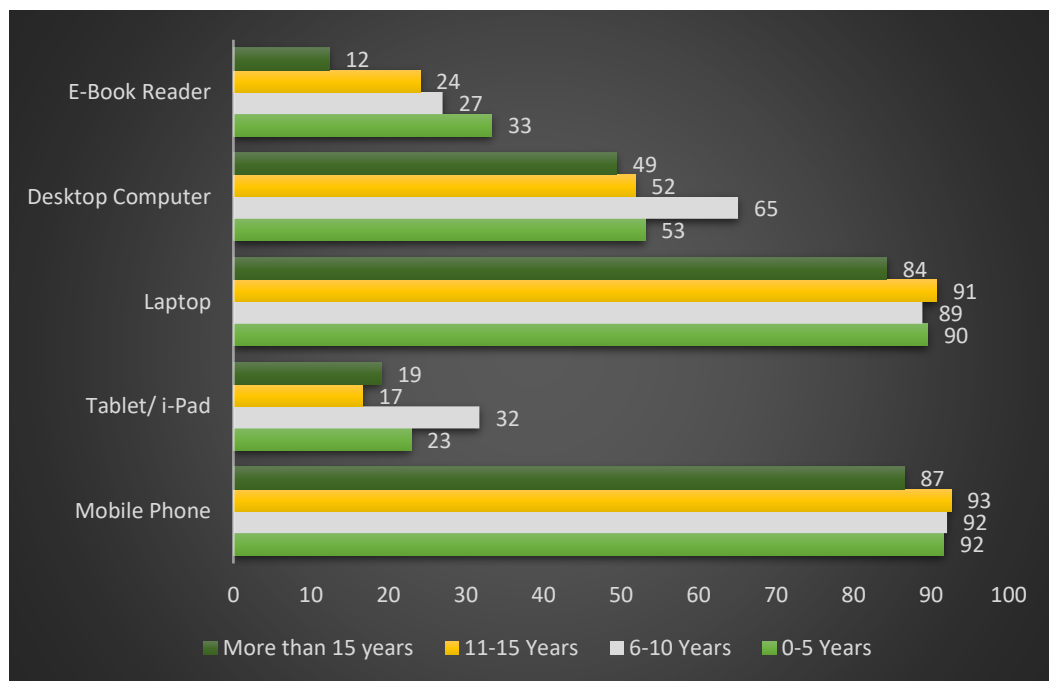


Chart 4.3.1-C: Digital Devices – Experience

Digital Devices	0-5 Years	6-10 Year	11-15 Year	15 years+
Mobile Phone	92	92	93	87
Laptop	90	89	91	84
Desktop Computer	53	65	52	49
E-Book Reader	33	27	24	12
Tablet/ I-Pad	23	32	17	19

Table: 4.3.1-C: Digital Devices – Experience

In comparing usage between rural and urban areas concerning digital devices for English Language Teaching (ELT), mobile phones and laptops emerge as the most utilized devices in both settings. Notably, in rural areas, there is a slightly higher preference for mobile phones in ELT, whereas in urban areas, laptops are used approximately 10% more than in rural areas. Desktop computers are employed almost equally in both rural and urban areas. However, there are variations in the usage of E-book readers and tablets/iPads, with E-book readers being more favoured in urban areas and tablets being more prevalent in rural areas.

Age-wise analysis demonstrates that mobile phones and laptops are consistently preferred across all age groups. Although mobile phones are slightly more favoured for ELT, the difference between the two devices is marginal. The 41-50 age group shows an equal preference for both mobile phones and laptops. In contrast, the 21-30 and 31-40 age groups prefer E-book readers over tablets and iPads, while individuals aged 41 and above exhibit the opposite preference.

When considering experience levels, both laptops and mobile phones are utilized equally across all groups. Mobile phones remain the most preferred device across all experience levels, followed by desktop computers. The choice between E-book readers and tablets/iPads varies based on teaching experience. Respondents with 0-5 years and 11-15 years of experience prefer E-book readers, while those with 6-10 years and 15+ years of experience favour tablets/iPads.

Mobile phones consistently emerge as one of the most preferred devices for teaching the English language across different demographics.

4.3.2 Digital Mediums

Digital Mediums utilised by tutors for online teaching of the English language.

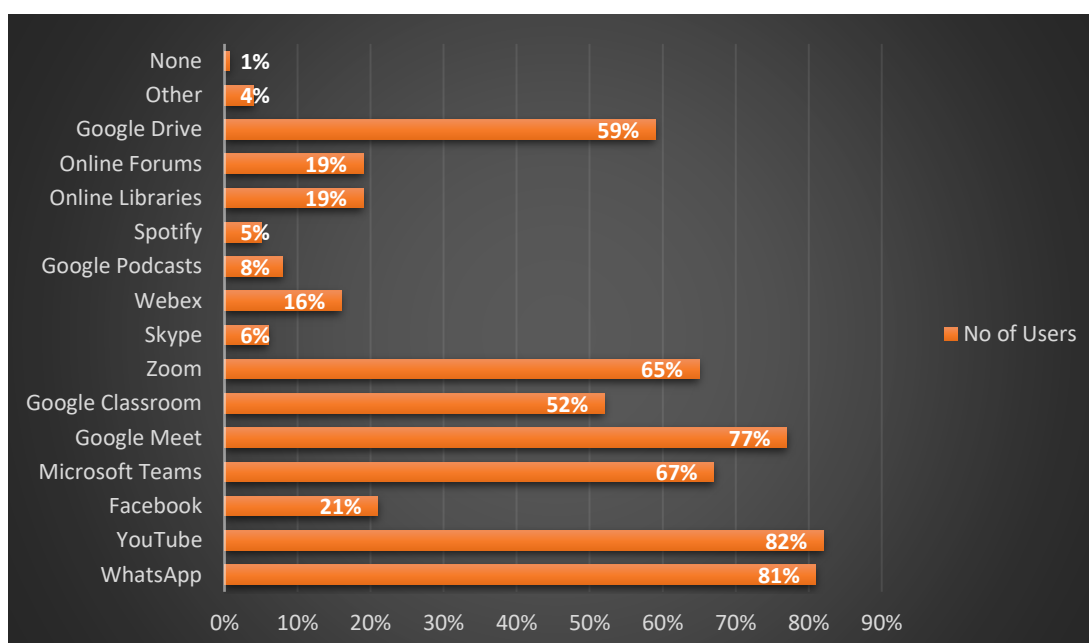


Chart 4.3.2: Digital Mediums

Digital Mediums	Percentage
YouTube	82%
WhatsApp	81%
Google Meet	77%
Microsoft Teams	67%
Zoom	65%
Google Drive	59%
Google Classroom	52%
Online Libraries	35%
Facebook	21%
Online Forums	19%
Webex	16%
Google Podcasts	8%
Skype	6%
Spotify	5%
Other	4%
None	1%

Table: 4.3.2: Digital Mediums

Chart 4.3.2 and **Table 4.3.2** provide insights into the most frequently used digital platforms by English language teachers in the state of Gujarat. Notably, YouTube (82%) and WhatsApp (81%) emerge as the top choices for teaching the English language.

YouTube serves as a versatile platform offering tutorial videos that can be easily shared with students. Additionally, teachers can create and share their own instructional videos through personalized YouTube channels. The platform allows for video playback controls, enabling teachers to pause, play, and rewind content as needed. WhatsApp, with an 81% usage rate, facilitates the sharing of various media formats, including videos, audio, links, PDF/Word files, and documents. WhatsApp is predominantly accessed through mobile phones.

Following YouTube and WhatsApp are class organization platforms, including Google Meet, Microsoft Teams, Zoom, and Google Classroom. These platforms enable teachers to conduct video conferences with students, facilitating direct teaching interaction. Google Drive, another commonly used platform, allows teachers to organize and store documents, links, videos, audio files, and study materials in one accessible location, thus helping students save mobile storage space.

Less commonly used among English language teachers in Gujarat are Google Podcasts and Spotify. Only 4% of teachers utilize additional devices such as Canva, Google Forms, Telegram, and OneDrive.

YouTube and WhatsApp play a central role in the digital landscape for English language teaching in Gujarat, with class organization platforms and Google Drive also being prevalent. Google Podcasts, Spotify, and other devices have yet to gain widespread adoption among teachers in the region.

i) **Rural and Urban**

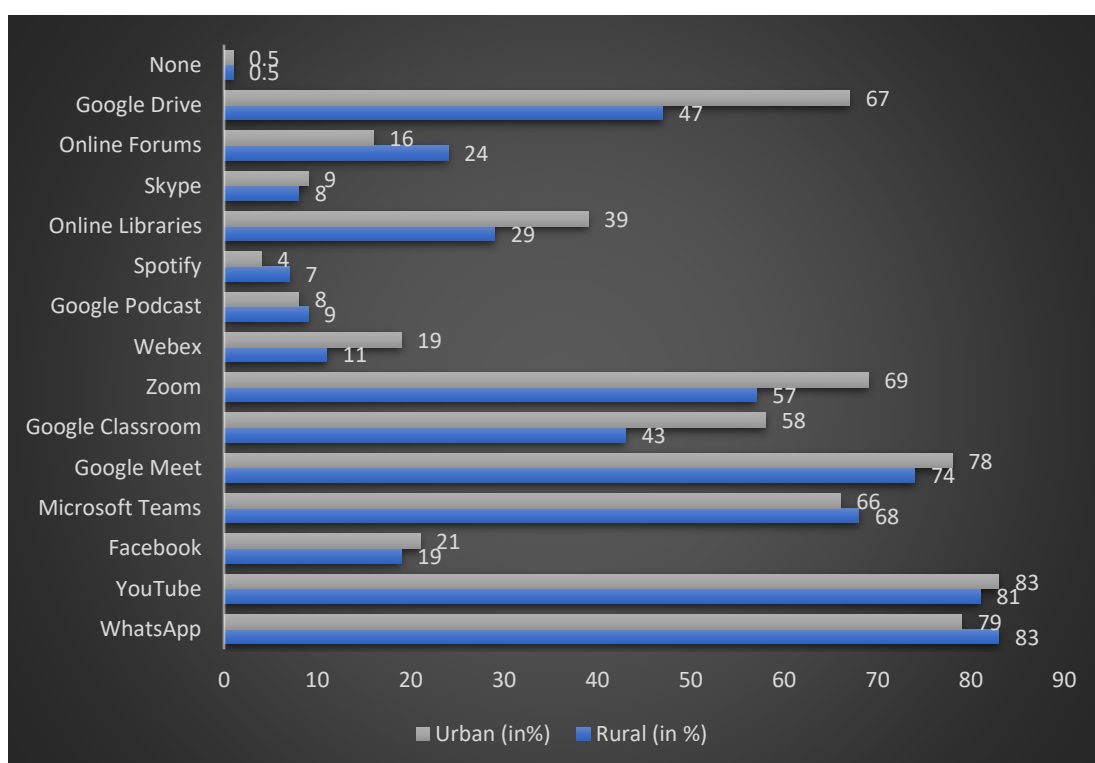


Chart 4.3.2-A: Digital Mediums – Rural and Urban

Digital Mediums	Rural (in %)	Urban (in%)
WhatsApp	83	79
YouTube	81	83
Google Meet	74	78
Microsoft Teams	68	66
Zoom	57	69
Google Drive	47	67
Google Classroom	43	58
Online Libraries	29	39
Online Forums	24	16
Facebook	19	21
Webex	11	19
Google Podcast	9	8
Skype	8	9
Spotify	7	4
None	0.5	0.5

Table: 4.3.2-A: Digital Mediums – Rural and Urban

ii) Age Wise Distribution

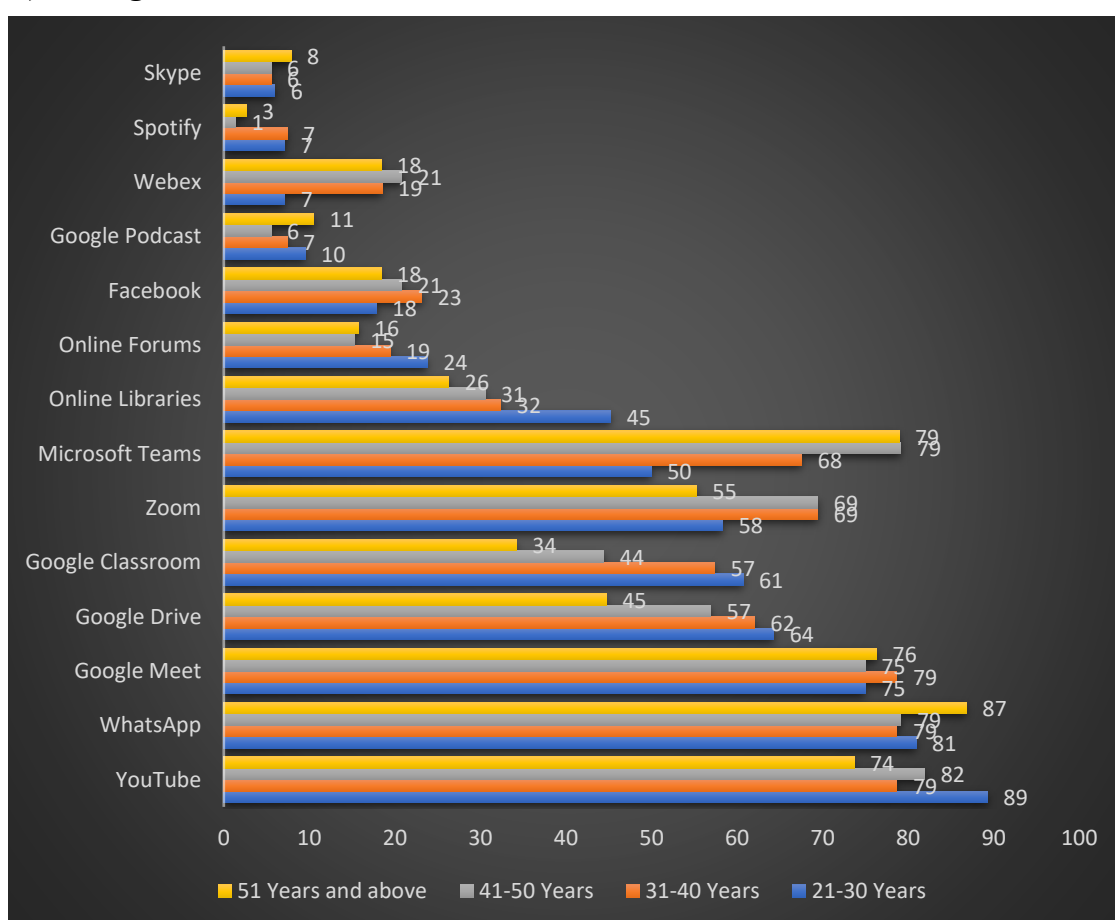


Chart 4.3.2-B: Digital Mediums – Age

Digital Mediums	21-30 Years	31-40 Years	41-50 Years	51 Years +
YouTube	89	79	82	74
WhatsApp	81	79	79	87
Google Meet	75	79	75	76
Google Drive	64	62	57	45
Google Classroom	61	57	44	34
Zoom	58	69	69	55
Microsoft Teams	50	68	79	79
Online Libraries	45	32	31	26
Online Forums	24	19	15	16
Facebook	18	23	21	18
Google Podcast	10	7	6	11
Webex	7	19	21	18
Spotify	7	7	1	3
Skype	6	6	6	8

Table: 4.3.2-B: Digital Mediums – Age

iii) Experience Wise Distribution

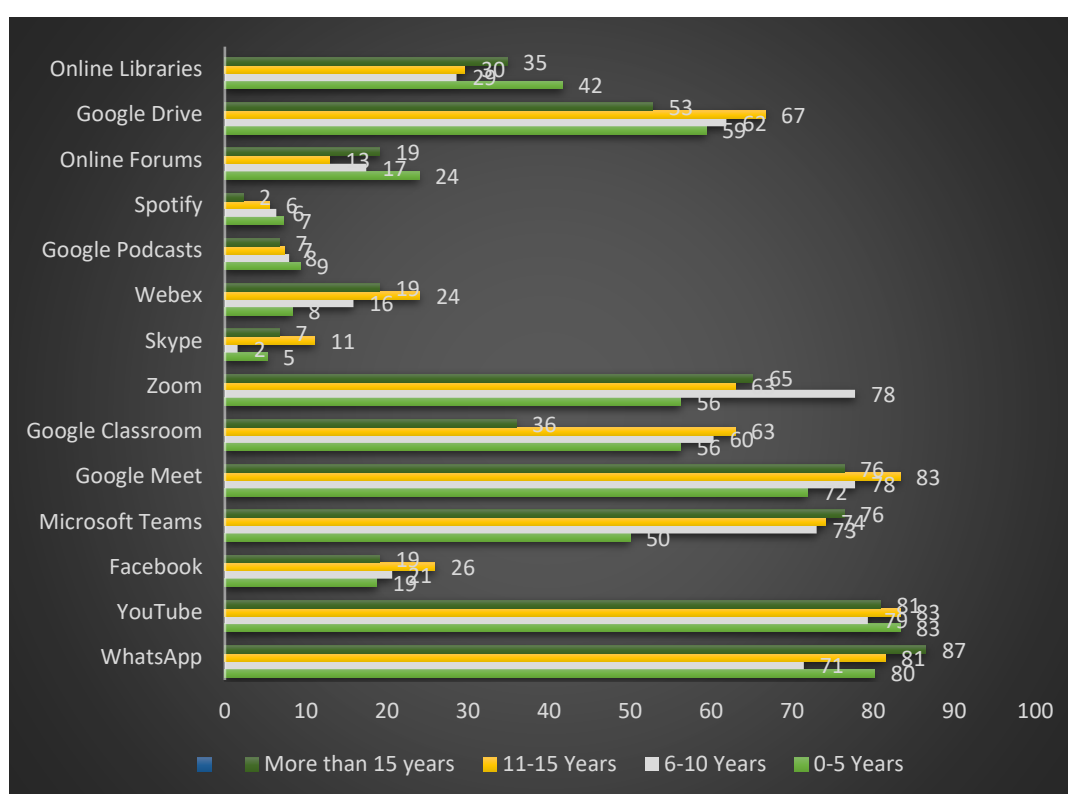


Chart 4.3.2-C: Digital Devices – Experience

Digital Mediums	0-5 Years	6-10 Years	11-15 Years	15 years+
YouTube	83	79	83	81
WhatsApp	80	71	81	87
Google Meet	72	78	83	76
Google Drive	59	62	67	53
Google Classroom	56	60	63	36
Zoom	56	78	63	65
Microsoft Teams	50	73	74	76
Online Libraries	42	29	30	35
Online Forums	24	17	13	19
Facebook	19	21	26	19
Google Podcasts	9	8	7	7
Webex	8	16	24	19
Spotify	7	6	6	2
Skype	5	2	11	7

Table: 4.3.2-C: Digital Devices – Experience

In comparing the digital platforms used by English language tutors, WhatsApp and YouTube emerge as the most utilized mediums, with specific usage patterns observed in rural and urban areas as digital devices are widely used by people around every corner of globe, “Due to globalisation, recently, technological devices have become widespread, not only in the developed countries, but also in developing ones” (Muhammed 104). WhatsApp takes the lead in rural areas, while YouTube is the preferred choice in urban areas. Additionally, Google Meet is a commonly used platform in both rural and urban settings.

Class organization platforms such as Google Meet, Microsoft Teams, Zoom, and Google Classroom follow closely behind WhatsApp and YouTube in popularity in both rural and urban areas. Access to online libraries is more prevalent in urban areas, whereas online forums are more commonly utilized in rural areas. Platforms dedicated to podcasts, such as Google Podcasts and Spotify, exhibit lower levels of usage. Only 0.5% of respondents in both areas reported not using any digital platforms.

Analysing the data by age reveals that respondents aged 21-30 and 41-50 prefer YouTube the most, followed by WhatsApp. Those aged 31-40 show an equal preference for both platforms, while respondents aged 51 and above favor WhatsApp over YouTube. In terms of experience, teachers with 15 years or more of experience lean towards WhatsApp, while others show a preference for YouTube.

Class organization platforms are consistently popular across all age groups and experience levels. Digital libraries are preferred by respondents of all ages and experience levels, followed by engagement with Facebook and online forums. The age group of 21-30 prefers online forums, while those aged 31 and above lean towards Facebook. In terms of experience, the least experienced group prefers online forums, those with 6-10 and 11-15 years of experience prefer Facebook, and those with 15+ years show an equal preference for both. Audio podcast platforms are not highly popular among respondents of any age group or experience level. Despite variations in preferences, YouTube and WhatsApp consistently emerge as the most preferred digital platforms for teaching the English language.

4.3.3 Digital Device Preference

Digital devices preferred by students for learning of English Language.

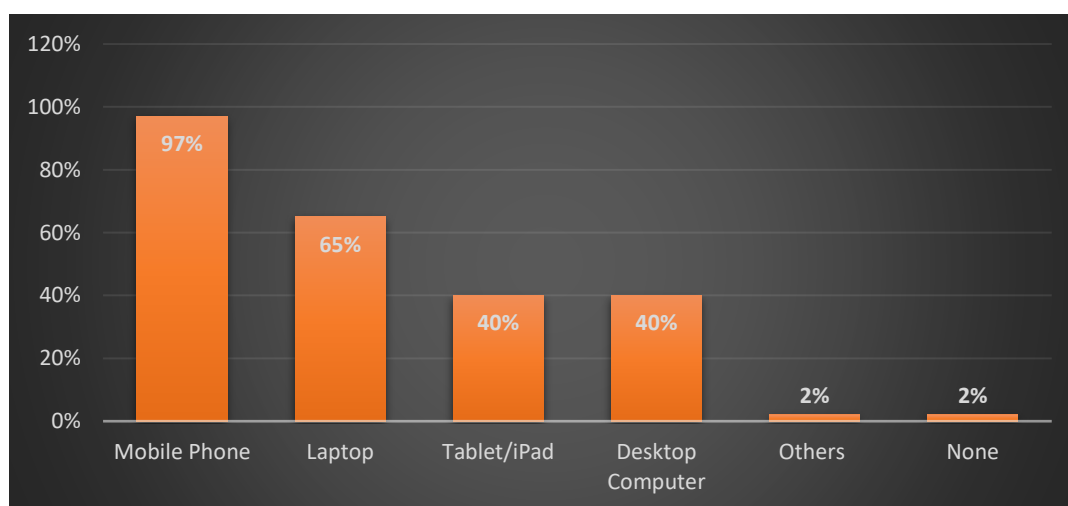


Chart 4.3.3: Digital Device Preference

Digital devices preferred by students for learning of English language.	Percentage
Mobile Phone	97%
Laptop	65%
Tablet/iPad	40%
Desktop Computer	40%
Others	2%
None	2%

Table: 4.3.3 Digital Device Preference

97% students prefer utilizing mobile phones as their primary device for learning the English language, with laptops following closely at 65%. Notably, there is a substantial disparity between the usage of mobile phones and the second most popular device, laptops. Tablets/iPads and desktop computers are employed by 40% of students, while a mere 2% opt for alternative devices like Smart Boards and Digital Pads. Additionally, another 2% of students do not utilize any digital devices for language learning. Consequently, among students, mobile phones emerge as the predominant and more convenient choice for English language learning.

i) **Rural and Urban**

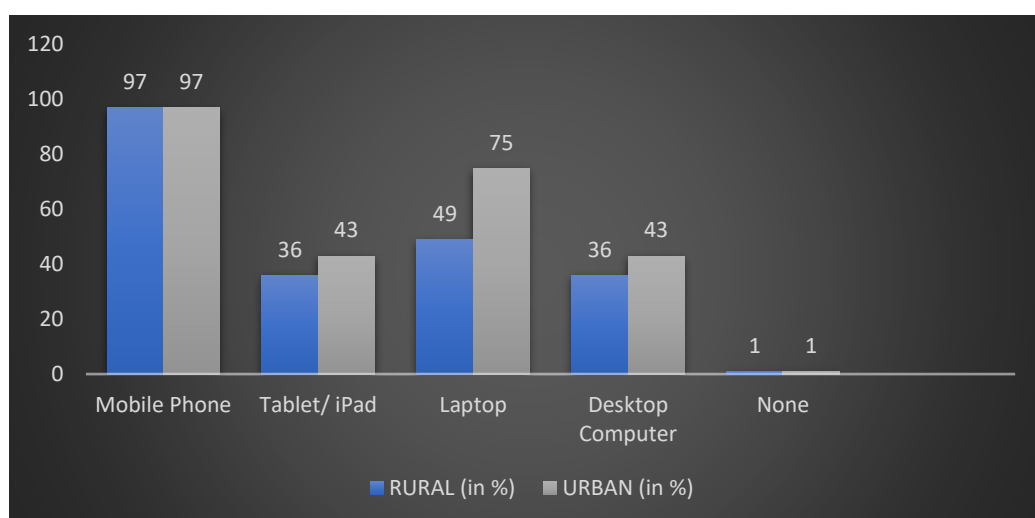


Chart 4.3.3-A: Digital Device Preference – Rural and Urban

Digital devices preferred by students for learning of English language.	Rural (in %)	Urban (in %)
Mobile Phone	97	97
Laptop	49	75
Tablet/ iPad	36	43
Desktop Computer	36	43
None	1	1

Table: 4.3.3-A Digital Device Preference – Rural and Urban

Among teachers, there is not a significant discrepancy between the use of mobile phones and laptops for English language instruction in both rural and urban areas. However, laptops are slightly more favoured in urban settings, while mobile phones are the preferred choice in rural areas. Despite this, when considering student preferences, mobile phones are overwhelmingly the top choice for both rural and urban students. Laptops come in as the second most preferred device, but there is a notable disparity in the percentage of students favouring mobile phones compared to laptops in both rural and urban areas. Thus, it is evident that mobile phones are the foremost choice among students in all areas for English language learning.

4.3.4 Ease of English Teaching and Learning

Is teaching and learning of English language easier on mobile phones than traditional classroom teaching?

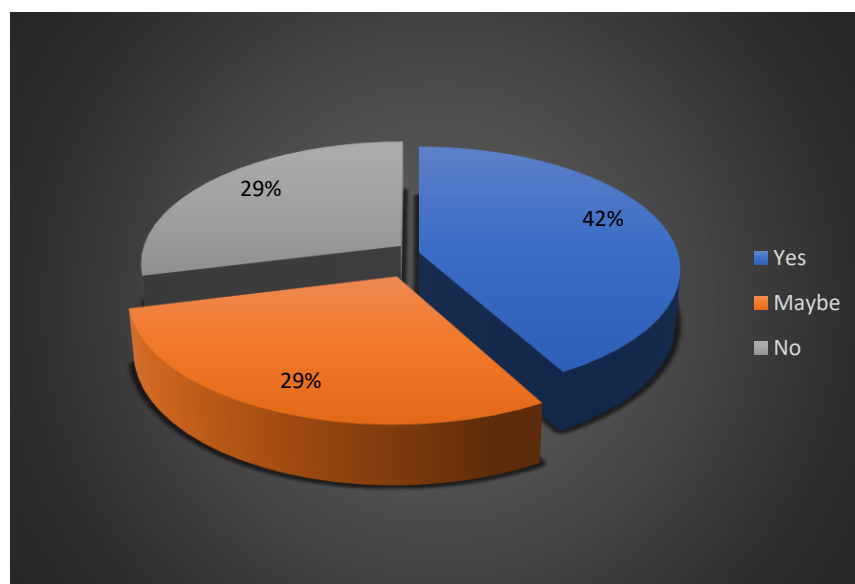


Chart 4.3.4: Ease of English Teaching and Learning

Is teaching and learning of English language easier on mobile phone?	Percentage
Yes	42%
Maybe	29%
No	29%

Table: 4.3.4 Ease of English Teaching and Learning

Of the respondents, 42% find mobile phones to be a more convenient option for both teaching and learning the English language. Another 29% express uncertainty, while an additional 29% do not perceive mobile phones as a simpler choice. Notably, a majority of teachers hold the view that mobile phones are indeed a more user-friendly option for teaching and learning English. Consequently, this perspective suggests the feasibility of conducting online English language courses through mobile phones, offering a convenient and effective mode of education.

i) **Rural and Urban**

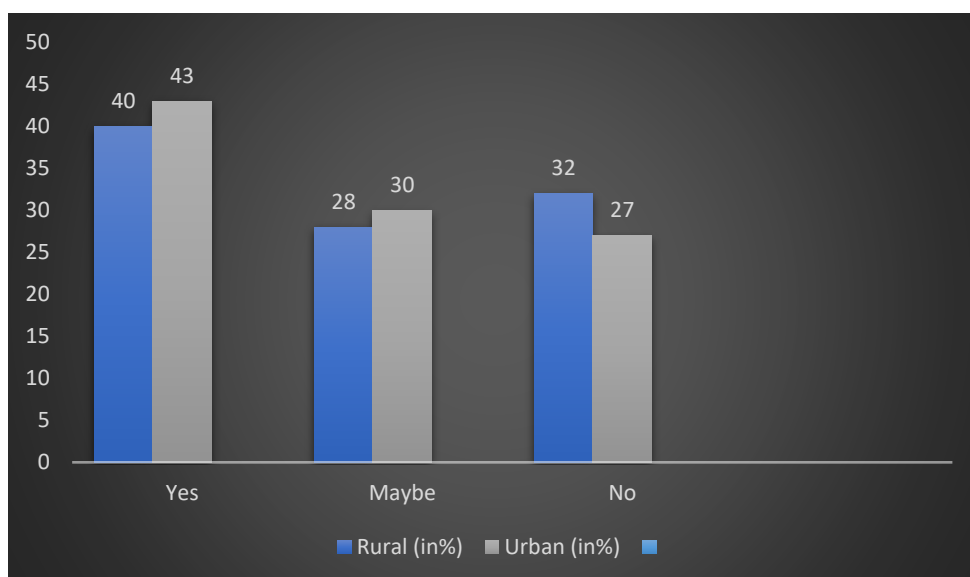


Chart 4.3.4-A: Ease of English Teaching and Learning – Rural and Urban

Is teaching and learning of English language easier on mobile phone?	Rural (in%)	Urban (in%)
Yes	40	43
No	32	27
Maybe	28	30

Table: 4.3.4A: Ease of English Teaching and Learning – Rural and Urban

ii) **Age Wise Distribution**

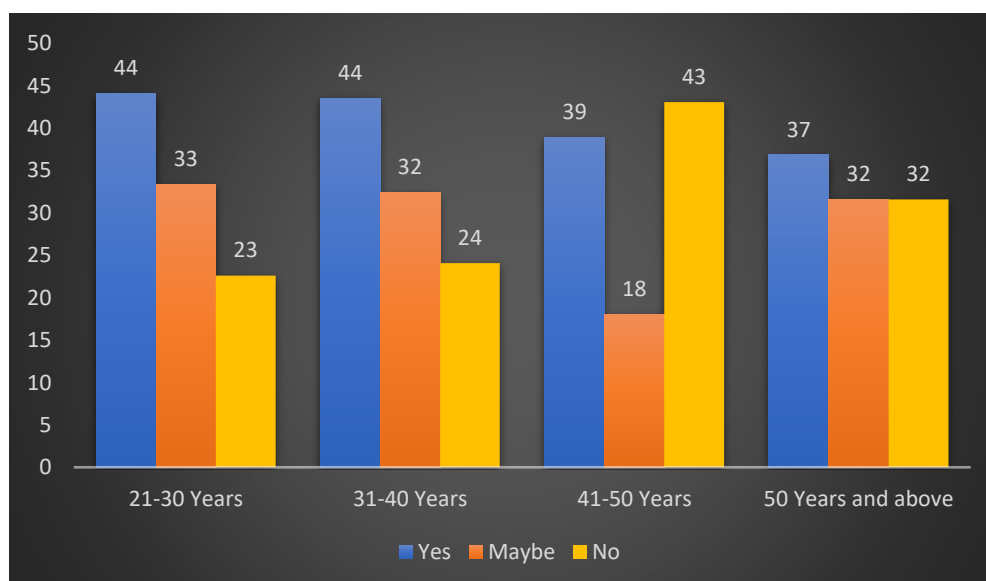


Chart 4.3.4-B: Ease of English Teaching and Learning – Age

Is teaching and learning of English language easier on mobile phone?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Yes	44	44	39	37
Maybe	33	32	18	32
No	23	24	43	32

Table: 4.3.4-B: Ease of English Teaching and Learning – Age

iii) Experience Wise Distribution

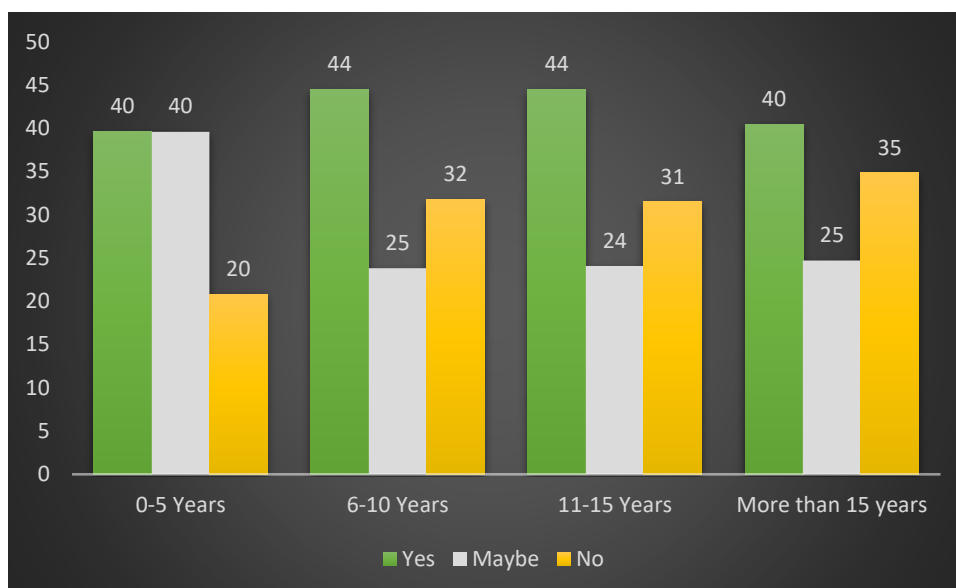


Chart 4.3.4-C: Ease of English Teaching and Learning – Experience

Is teaching and learning of English language easier on mobile phone?	0-5 Years	6-10 Years	11-15 Years	15 years+
Yes	40	44	44	40
Maybe	40	24	24	25
No	20	32	31	35

Table: 4.3.4-C: Ease of English Teaching and Learning – Experience

Most people from both rural and urban areas agree that learning and teaching English is easier with mobile phones than with traditional methods. Looking at different age groups, those between 21-30 and 31-40 tend to believe that using mobile devices is more comfortable for English language education. However, individuals aged 41-50 lean towards traditional learning being easier, while those aged 50 and above believe mobile learning is more straightforward, though the percentage difference with those who disagree is not significant. Younger individuals generally find Mobile-Assisted Language Learning (MALL) easier for both English Language Learning (ELL) and English Language Teaching (ELT).

When considering experience levels, most individuals with more than 6 years of experience believe that teaching and learning English through mobile phones is easier than using traditional methods. This indicates a growing acceptance of mobile-based approaches, especially among educators with significant experience in English language instruction.

4.3.5 Result Significance

Does teaching and learning of English language with mobile phones exhibit more significant results than traditional classroom learning?

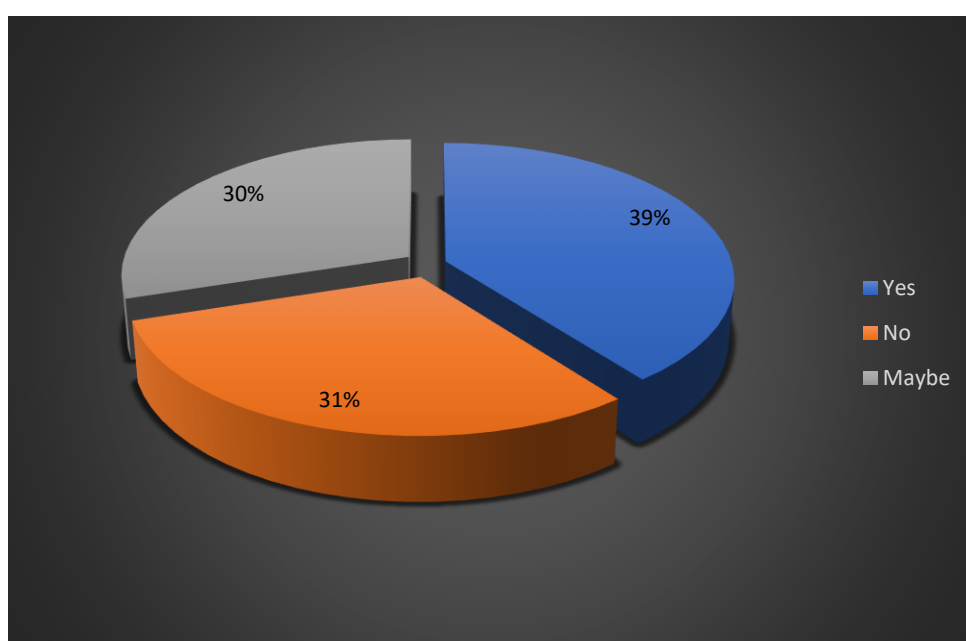


Chart 4.3.5: Result Significance

Do mobile phones exhibit more significant results than traditional classroom learning?	Percentage
Yes	39
Maybe	30
No	31

Table: 4.3.5: Result Significance

Traditional learning, characterized by face-to-face interactions, is considered irreplaceable in mainstream education. However, for smaller-paced courses like language learning, virtual instruction using digital devices such as mobile phones is seen as a viable option. While there is not a substantial difference between the responses of "Yes," "Maybe," and "No," the majority opinion among teachers, comprising 39% of the total, is that teaching and learning the English language through mobile phones yields more significant results compared to traditional classroom learning. On the contrary, 31% of teachers disapprove of this approach, and 30% remain uncertain about its effectiveness.

i) Rural and Urban

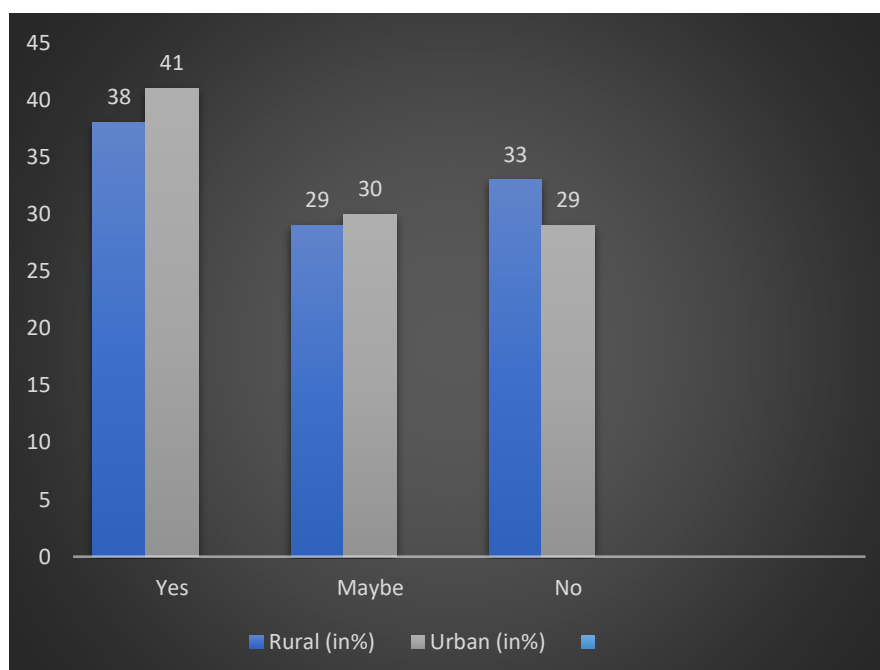


Chart 4.3.5-A: Result Significance – Rural and Urban

Do mobile phones exhibit more significant results than traditional classroom learning?	Rural (in%)	Urban (in%)
Yes	38	41
Maybe	29	30
No	33	29

Table: 4.3.5-A: Result Significance – Rural and Urban

ii) Age Wise Distribution

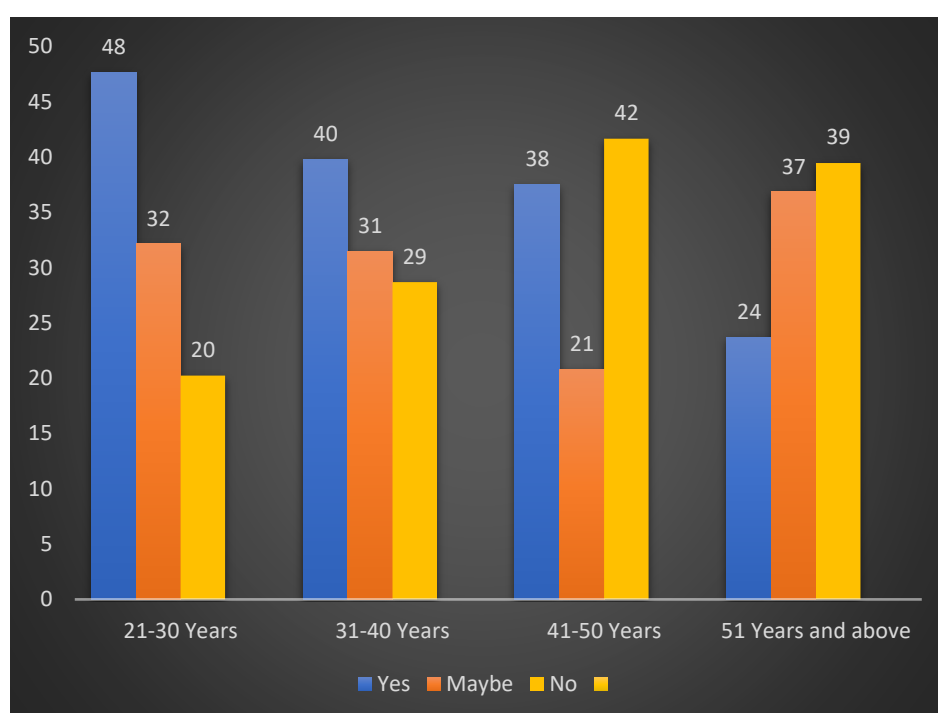


Chart 4.3.5-B: Result Significance – Age

Do mobile phones exhibit more significant results than traditional classroom learning?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Yes	48	40	38	24
Maybe	32	31	21	37
No	20	29	42	39

Table: 4.3.5-B: Result Significance – Age

iii) Experience Wise Distribution

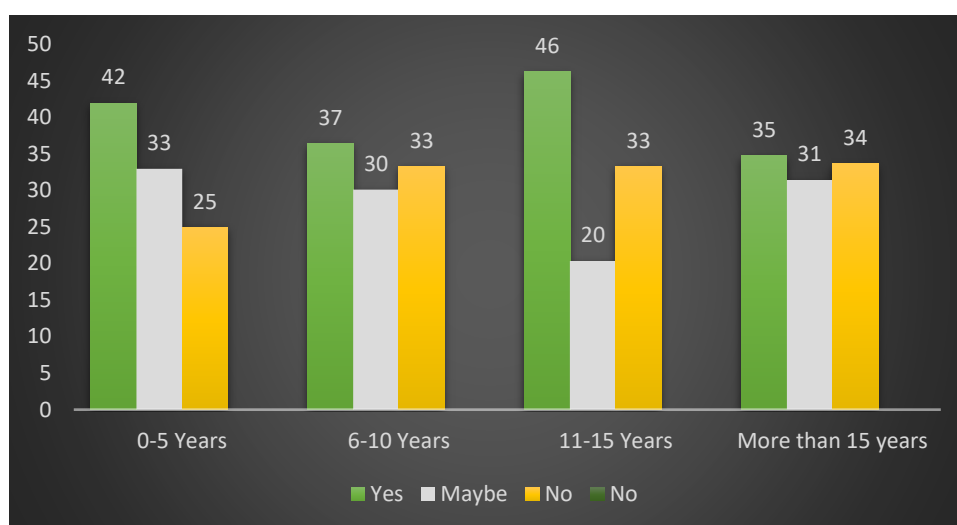


Chart 4.3.5-C: Result Significance – Experience

Do mobile phones exhibit more significant results than traditional classroom learning?	0-5 Years	6-10 Years	11-15 Years	15 Years+
Yes	42	37	46	35
Maybe	33	30	20	31
No	25	33	33	34

Table: 4.3.5-C: Result Significance – Experience

A majority of respondents from both urban and rural areas agree that mobile phones deliver more significant results than traditional learning methods. Analyzing responses by age groups reveals that individuals in the younger age brackets (21-30 and 31-40) are inclined to believe in the superiority of mobile learning over traditional methods. Conversely, respondents in the older age groups (41-50 and 50 years and above) express a preference for traditional classrooms, considering them more effective than mobile learning for teaching and learning the English language.

Examining experience levels, all groups generally favor mobile learning over traditional methods. Notably, respondents with 11 to 15 years of experience strongly believe in the superior outcomes of mobile learning, while those with 15 years and more of experience show a relatively balanced ratio of favoring both mobile and traditional learning. However, the overall trend suggests that a higher number of respondents believe that mobile phones deliver more significant results than traditional learning in the context of teaching and learning the English language.

4.3.6 Student Acceptance

Do students tend to watch videos or listen to audio/podcasts to understand the concepts related to English language learning than raising questions in class?

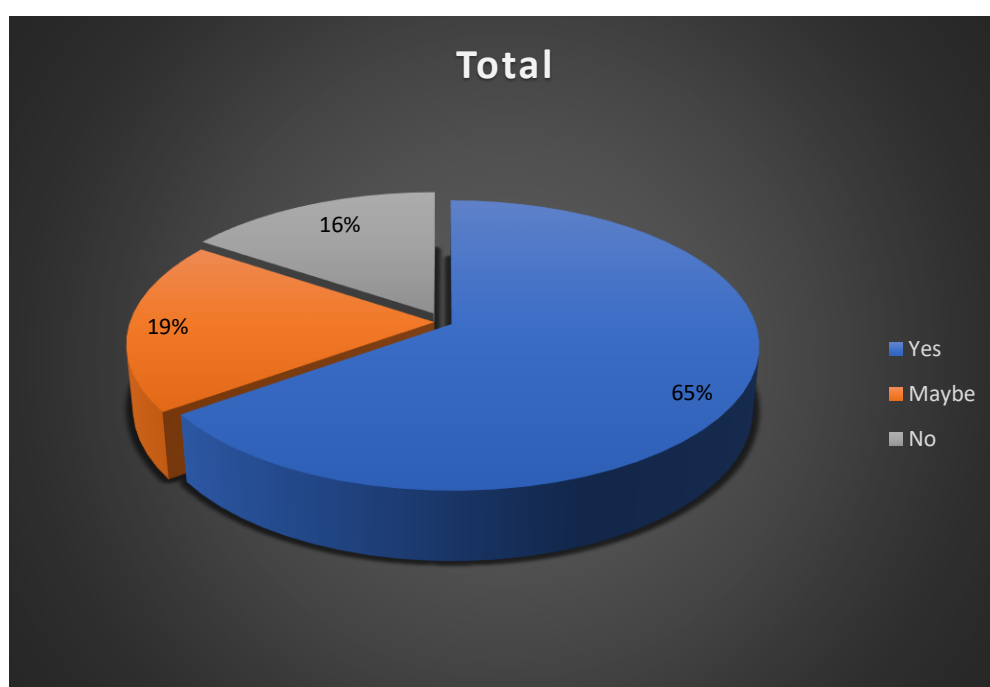


Chart 4.3.6: Student Acceptance

Do students tend to watch videos or listen to audio/podcasts than raising questions in class?	Percentage
Yes	65
Maybe	19
No	16

Table: 4.3.6 Student Acceptance

For students, mobile phones and internet connections emerge as the easiest and most convenient tools for learning the English language. When faced with challenges in their language learning journey, they instinctively turn to their mobile phones, utilizing internet resources to find solutions. Whether it is exploring new words, perfecting pronunciations, or grasping complex concepts, students find their pocket-sized devices to be versatile and accessible.

The mobile phone provides an array of learning options for students, including videos, audios, texts, files, libraries, podcasts, and MOOC learning. This multiplicity of resources contributes to the perceived ease of learning through mobile devices. Remarkably, 65% of teachers acknowledge that students commonly resort to scrolling through their mobile phones to grasp new concepts, opting for video content or audio/podcasts to enhance their understanding of English language-related topics instead of posing questions in class.

This inclination towards mobile learning is often attributed to students' reluctance to raise questions in a classroom setting due to a fear of judgment. Consequently, the mobile phone serves as a more comfortable and convenient alternative for students, empowering them to explore various learning avenues without the potential hesitation associated with traditional classroom participation.

i) Rural and Urban

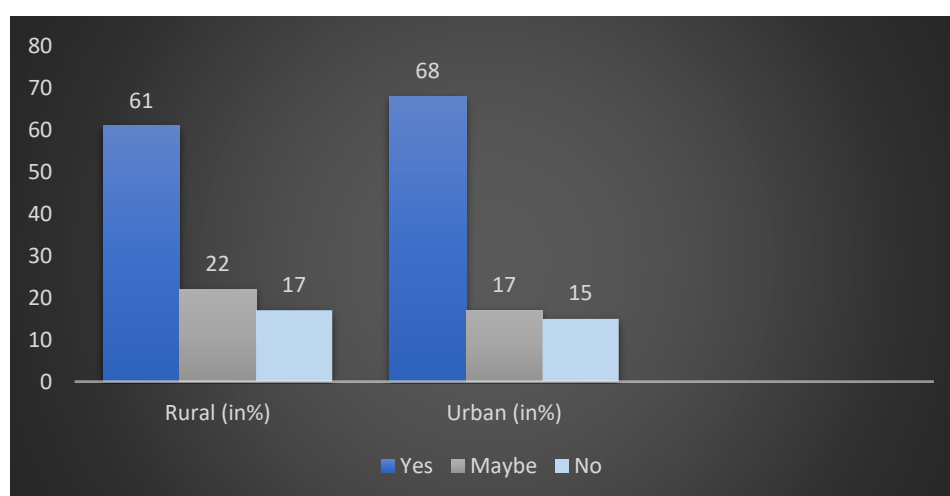


Chart 4.3.6-A: Student Acceptance – Rural and Urban

Do students tend to watch videos or listen to audio/podcasts than raising questions in class?	Rural (in%)	Urban (in%)
Yes	61	68
Maybe	22	17
No	17	15

Table: 4.3.6-A: Student Acceptance - Rural and Urban

While students in both rural and urban areas generally lean towards watching videos, listening to audio, or engaging with podcasts to comprehend English language concepts instead of actively participating in class discussions, there is a notable distinction. In urban areas, a higher proportion of students are inclined to scroll through their mobile phones for learning compared to their counterparts in rural areas.

This discrepancy in preferences is partially attributed to economic constraints faced by students in some rural areas. Students from economically disadvantaged backgrounds may find it challenging to afford mobile phones or internet connections, limiting their access to online learning resources. Additionally, there might be a lack of awareness about online learning methods in certain rural areas, contributing to a lower adoption of mobile-based learning practices.

The disparity in access and awareness highlights the need for targeted efforts to bridge the digital divide and promote awareness about the benefits of online learning, particularly in underprivileged rural communities.

4.3.7. English Application

Are students prompt to use mobile phones to find or learn pronunciation, meaning, grammar or new concepts related to English language learning?

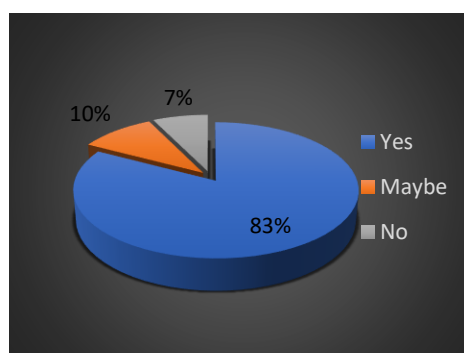


Chart 4.3.7: English Application

Are students prompt to use mobile phones to learn?	Percentage
Yes	83
Maybe	10
No	7

Table: 4.3.7 English Application

In the present day, students have embraced technology, becoming tech-savvy individuals who consider digital devices and mobile phones as highly convenient tools for learning because “the field of English language learning, integrating smartphones can be useful in learning English language courses”(Ta’amneh 02). The ease of obtaining meanings and grasping new concepts at any time and from any location makes digital devices, particularly mobile phones, the preferred choice for students. The convenience of learning through mobile phones surpasses traditional methods such as asking teachers or visiting libraries.

An overwhelming 83% of teachers acknowledge that students instinctively turn to their mobile phones to find or learn pronunciation, meanings, grammar, or new concepts related to English language learning. When faced with the need to understand a concept or learn the meaning of a term, unlocking their mobile phones is the immediate and preferred option for most students. This shift towards mobile-based learning highlights the significant role that technology plays in shaping contemporary learning preferences and habits among students.

i) Rural and Urban

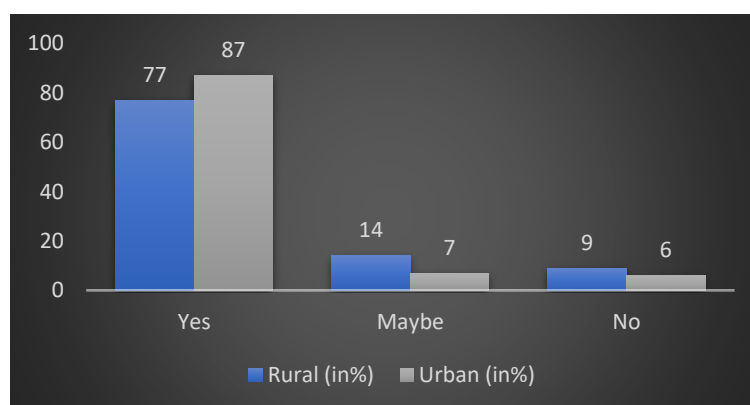


Chart 4.3.7-A: English Application – Rural and Urban

Are students prompt to use mobile phones to learn?	Rural (in%)	Urban (in%)
Yes	77	87
Maybe	14	7
No	9	6

Table: 4.3.7-A – English Application – Rural and Urban

In both urban and rural settings, students are inclined to use mobile phones for tasks like finding meanings, learning pronunciation, understanding grammar, or exploring new concepts related to English language learning. This inclination is attributed to the portability, ease of use, flexibility, and the widespread availability of affordable internet on mobile phones.

However, there are some respondents who express uncertainty about this trend, and a few outright deny it. These dissenting views often point to economic disparities, suggesting that students from extremely disadvantaged economic backgrounds may face challenges affording mobile phones or internet connections. The inability to access these resources due to financial constraints may limit the learning opportunities for students in these circumstances. Thus, while mobile phones are widely embraced, it is important to acknowledge and address the potential barriers faced by students from economically weaker sections.

4.3.8 Preference for Mobile Phones

Do students prefer to understand the meaning of new English words from mobile phones on the web or online dictionaries than paperback dictionaries?

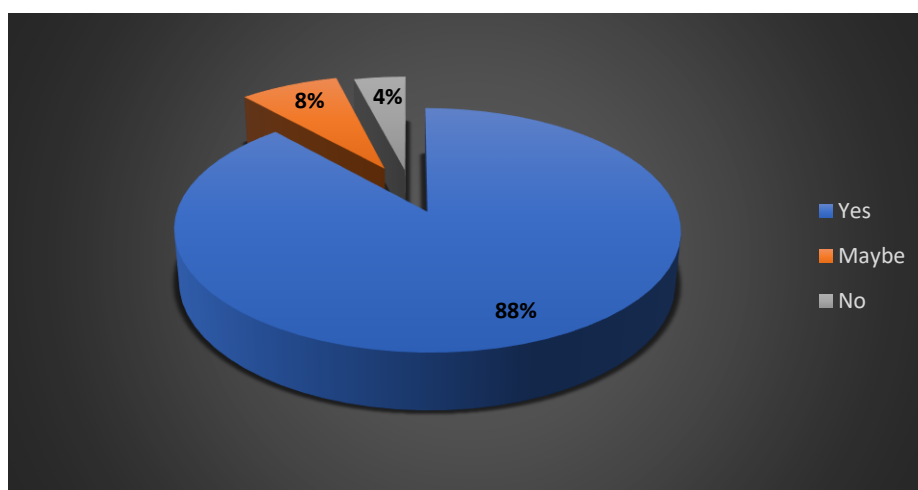


Chart 4.3.8: Preference for Mobile Phones

Do students prefer to understand the meaning of English words from mobile phones than paperback dictionaries?	Percentage
Yes	88
Maybe	8
No	4

Table: 4.3.8 Preference for Mobile Phones

The rise of digitalization has led to a gradual replacement of manual resources, particularly with the increasing availability of digital libraries and books. Learners are showing a distinct inclination towards the digital realm, opting for online resources over purchasing traditional books. In the past, students relied on paperback dictionaries, but with the advent of digital dictionaries, the trend has shifted. Now, learners prefer accessing meanings online rather than buying and carrying physical dictionaries.

Mobile phones play a pivotal role in this shift, allowing students to download online dictionaries or quickly search for word meanings and pronunciations through search engines. The convenience of online dictionaries lies in their portability, and students appreciate the added benefit of obtaining pronunciation and example sentences for a comprehensive understanding. Notably, 88% of teachers affirm that students favour online dictionaries over their paperback counterparts, underscoring the widespread preference for digital resources in the learning process.

i) Rural and Urban

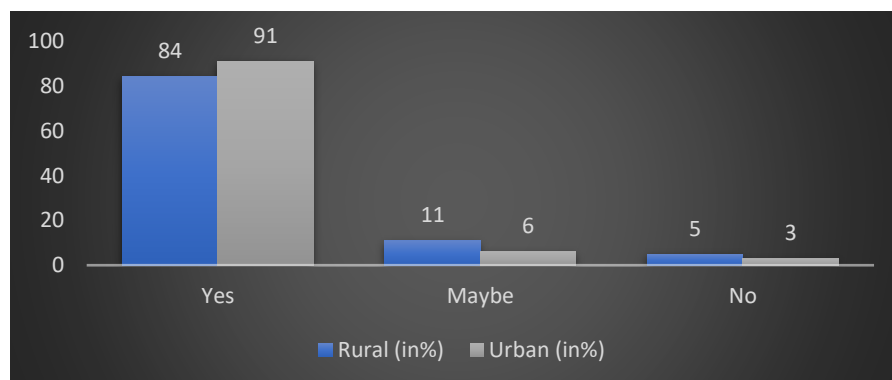


Chart 4.3.8-A: Preference for Mobile Phones – Rural and Urban

Do students prefer to understand the meaning of English words from mobile phones than paperback dictionaries?	Rural (in%)	Urban (in%)
Yes	84	91
Maybe	11	6
No	5	3

Table: 4.3.8-A: Preference for Mobile Phones - Rural and Urban

A majority of respondents from both urban and rural areas concur that students exhibit a preference for mobile phones and online dictionaries when seeking the meaning of new English words, as opposed to using paperback dictionaries. The primary reason behind this trend is the convenience provided by mobile phones, which students carry with them everywhere. The ease of accessing the web allows them to effortlessly obtain meanings, along with synonyms, antonyms, sentences using the word, and pronunciation.

The aversion to carrying heavy paperback dictionaries stems from the availability of comprehensive information at their fingertips through mobile devices. By accessing the web, students can access a wealth of linguistic resources, making the learning process more efficient and adaptable to their dynamic lifestyles. This shift reflects the growing reliance on digital tools and the convenience they offer in the realm of language learning.

4.3.9 Reasons for preferring mobile phones.

Do teachers prefer teaching and learning of English language with mobile phones?

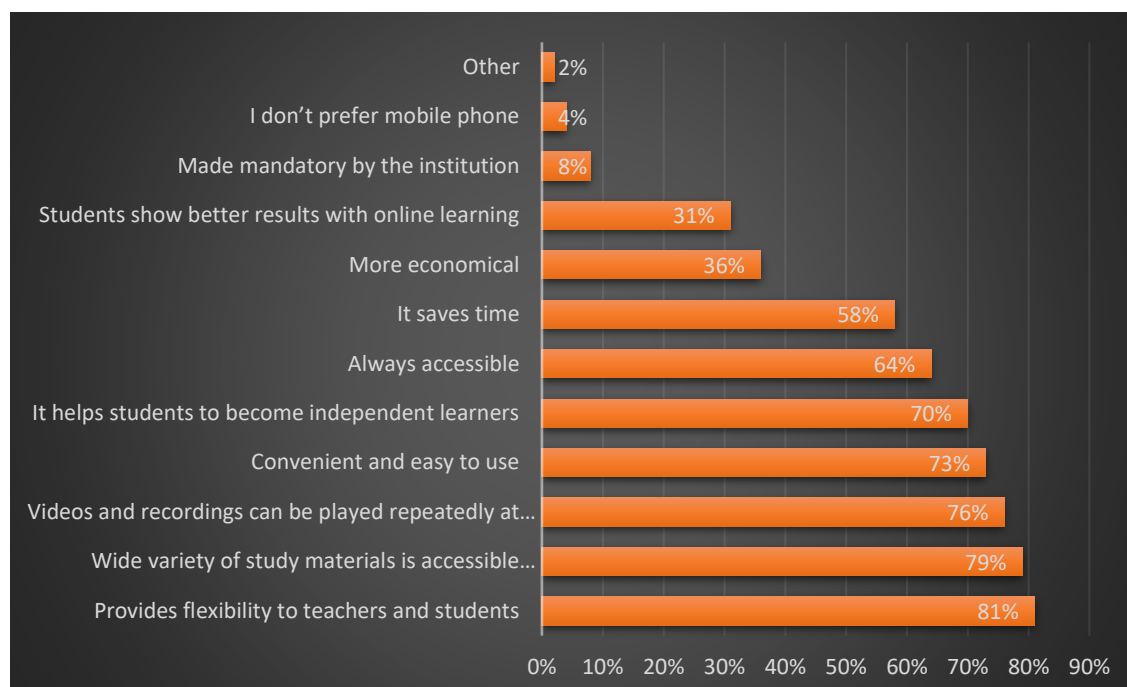


Chart 4.3.9: Reasons for Preference of Mobile Phones

Why teachers prefer mobile phones?	Percentage
Provides flexibility to teachers and students	81%
Wide variety of study materials is accessible through the web	79%
Videos and recordings can be played repeatedly at will	76%
Convenient and easy to use	73%
It helps students to become independent learners	70%
Always accessible	64%
It saves time	58%
More economical	36%
Students show better results with online learning	31%
Made mandatory by the institution	8%
I do not prefer mobile phone	4%
Other	2%

Table: 4.3.9: Reasons for Preference of Mobile Phones

The mobile phone emerges as the most favoured digital device for both teachers and students, attributed to various compelling reasons. Foremost among these is the flexibility it offers, allowing learning to take place anywhere and anytime with the convenience of a wireless and portable device. A substantial 81% of teachers prioritize mobile phones for their flexibility. Another significant factor is the wide variety of study materials accessible through mobile phones, with 79% of teachers appreciating the abundance of options, including digital libraries, YouTube videos, podcasts, audios, articles, journals, policies, and documented files.

The convenience and user-friendly nature of smart functioning mobile phones also contribute to their preference, with 73% of teachers highlighting the ease of playing and pausing videos and recordings at will. This convenience factor extends to the overall functioning of the device, making it a preferable option for 73% of teachers. The flexibility provided by mobile learning not only empowers students as independent learners but also fosters student-centric classrooms, as acknowledged by 70% of teachers.

Practical considerations, such as time and cost savings, also play a role in the preference for mobile learning. Fifty-eight percent of teachers appreciate the time-saving aspect, as students can access learning materials with a few clicks instead of navigating physical libraries. Additionally, 36% of teachers highlight the economic benefits, as mobile learning reduces the costs associated with traveling and infrastructure. Moreover, 31% of teachers believe that students exhibit improved results through online learning methods.

Interestingly, a small percentage (8%) notes that institutions have mandated mobile learning, signalling the emergence of a mobile learning culture for English language learning in India. Another 2% cite diverse reasons, such as students' enjoyment and motivation in the English language learning process with mobile phones, the necessity of staying updated with technology, and the introduction of non-traditional methods for novel thought processes.

Despite these favourable views, a minimal 4% of teachers do not prefer mobile phones for teaching, indicating that while the majority embraces mobile learning for English language instruction, there are still a few who may have

reservations or alternative preferences. Overall, the overwhelming preference for mobile phones among teachers and students showcases the viability and popularity of integrating mobile learning into English language teaching and learning methodologies.

i) Rural and Urban

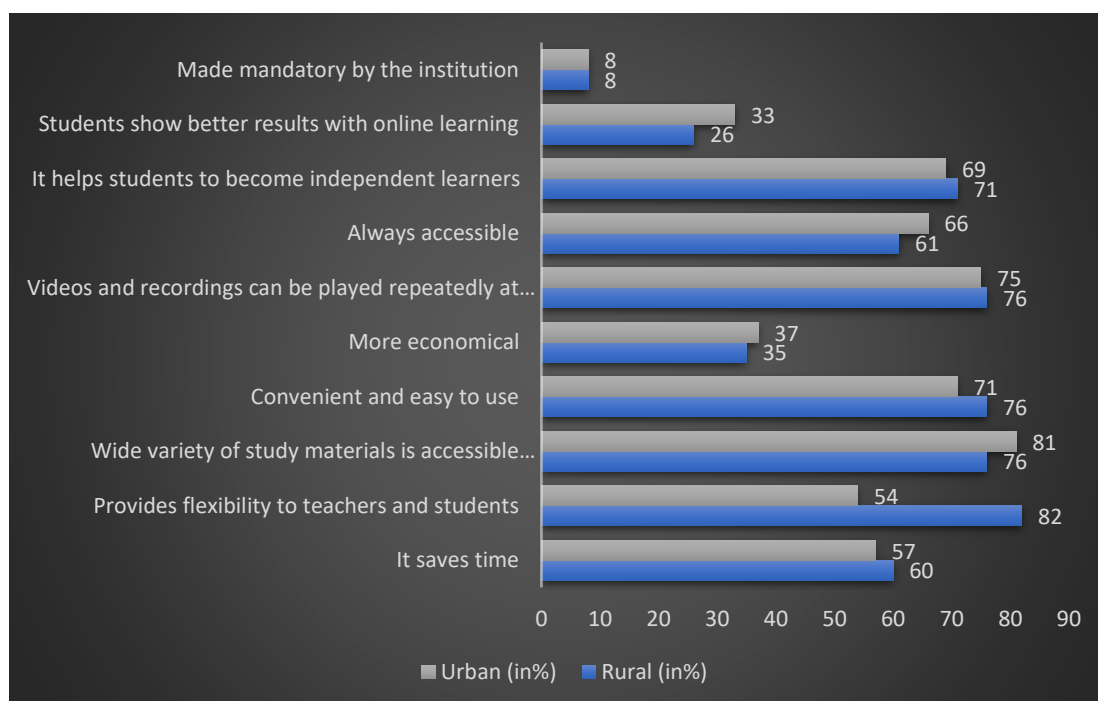


Chart 4.3.9-A: Reasons for Preference of Mobile Phones – Rural and Urban

Why teachers prefer mobile phones?	Rural (in%)	Urban (in%)
Provides flexibility to teachers and students	82	54
Wide variety of study materials is accessible through the web	76	81
Convenient and easy to use	76	71
Videos and recordings can be played repeatedly at will	76	75
It helps students to become independent learners	71	69
Always accessible	61	66
It saves time	60	57
More economical	35	37
Students show better results with online learning	26	33
Made mandatory by the institution	8	8

Table: 4.3.9-A: Reasons for Preference of Mobile Phones – Rural and Urban

ii) Age Wise Distribution

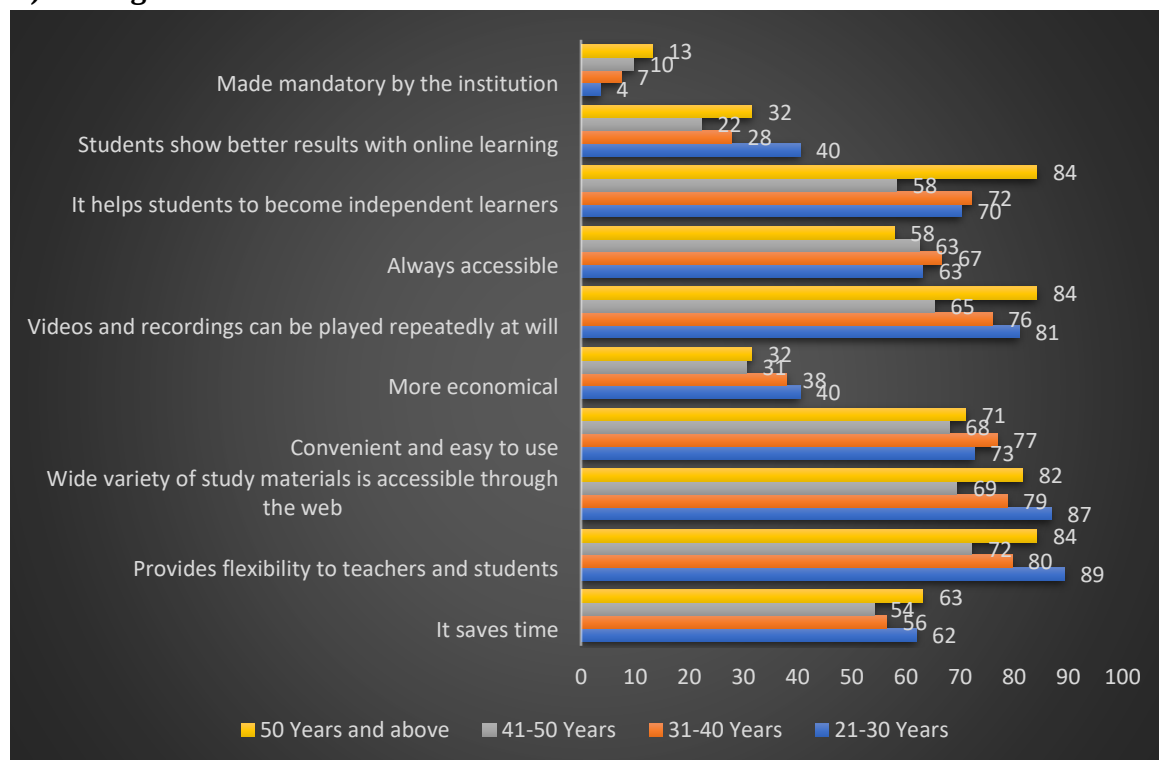


Chart 4.3.9-B: Reasons for Preference of Mobile Phones - Age

Why teachers prefer mobile phones?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Provides flexibility to teachers and students	89	80	72	84
Wide variety of study materials is accessible through the web	87	79	69	82
Videos and recordings can be played repeatedly at will	81	76	65	84
Convenient and easy to use	73	77	68	71
It helps students to become independent learners	70	72	58	84
Always accessible	63	67	63	58
It saves time	62	56	54	63
More economical	40	38	31	32
Students show better results with online learning	40	28	22	32
Made mandatory by the institution.	4	7	10	13

Table: 4.3.9-B: Reasons for Preference of Mobile Phones – Age

iii) Experience Wise Distribution

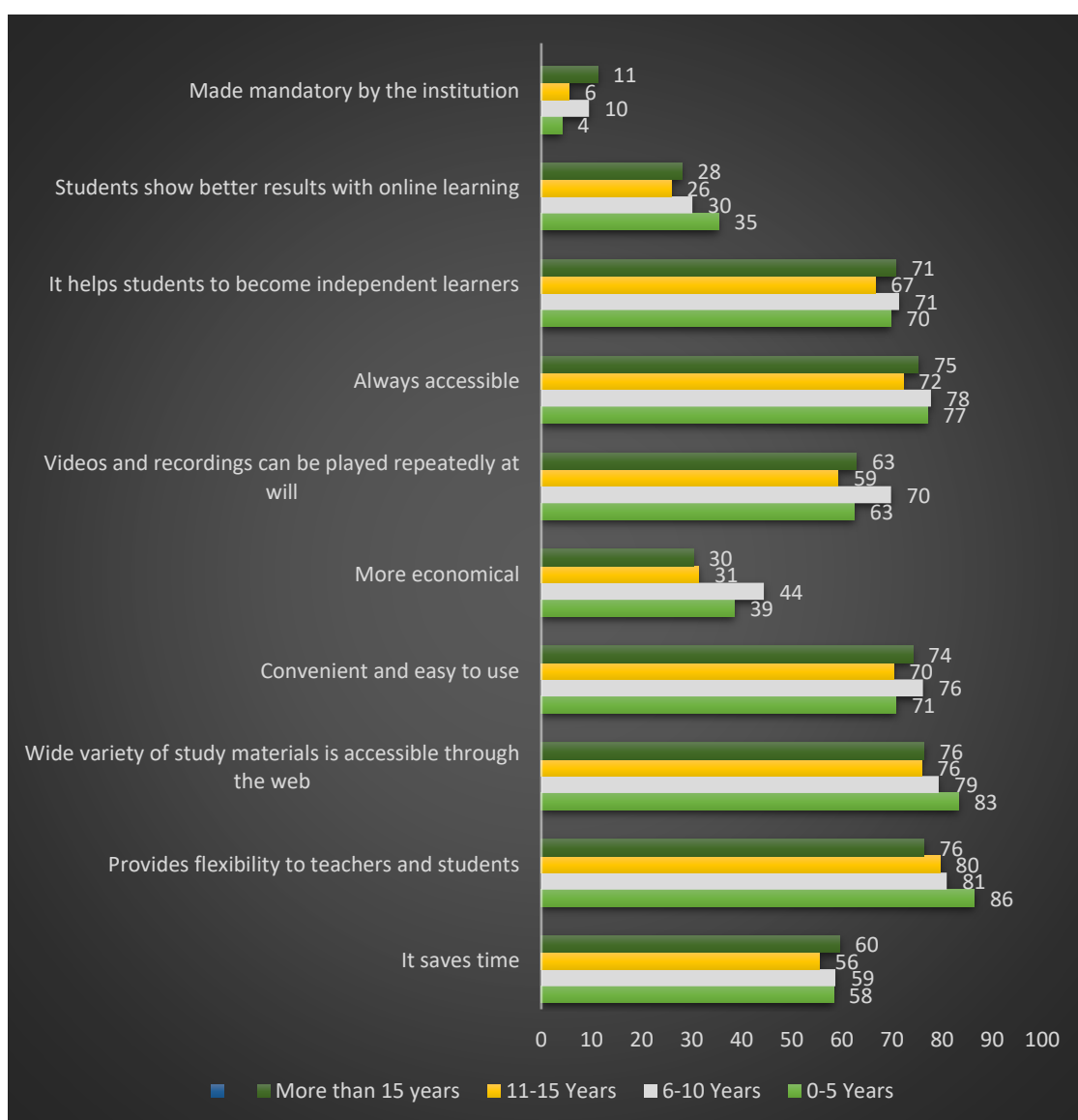


Chart 4.3.9-C: Reasons for Preference of Mobile Phones - Experience

Why teachers prefer mobile phones?	0-5 Years	6-10 Years	11-15 Years	15 years+
Provides flexibility to teachers and students	86	81	80	76
Wide variety of study material is accessible through the web	83	79	76	76
Always accessible	77	78	72	75
Convenient and easy to use	71	76	70	74

It helps students to become independent learners	70	71	67	71
Videos and recordings can be played repeatedly at will	63	70	59	63
It saves time	58	59	56	60
More economical	39	44	31	30
Students show better results with online learning	35	30	26	28
Made mandatory by the institution	4	10	6	11

Table: 4.3.9-C: Reasons for Preference of Mobile Phones – Experience

In rural areas, the mobile phone is highly favoured due to its flexibility, providing both teachers and students with the opportunity to access English language education without the need to travel to urban areas, which are often associated with better educational facilities and opportunities. The cost-effective and convenient nature of mobile learning in rural regions, where resources may be limited, is a significant driving factor.

On the other hand, urban respondents predominantly appreciate the mobile phone for its accessibility to a diverse range of study materials. This aligns with the urban setting, where individuals have greater access to educational resources but still value the convenience and variety offered by mobile learning.

In rural areas, the preference for mobile phones extends beyond flexibility to include convenience, ease of use, and the ability to play videos and recordings at will. These features contribute to a favourable learning environment for students in rural settings.

Analysing preferences based on age or experience reveals a consistent trend among respondents. The top reason for choosing mobile phones across all age groups and experience levels is flexibility. Even in the elderly age group of 51 years and above, mobile phones are appreciated not only for their flexibility but also for fostering independence in learners, particularly through the ability to play videos and recordings at their own pace.

Despite the overall consistency in preferences across age groups and experience levels, there are slight variations. Notably, the least agreed-upon reason for choosing mobile phones is the mandate from educational institutions, with only a minimal percentage of respondents acknowledging this factor. This suggests that the intrinsic benefits and features of mobile learning hold more sway in shaping preferences than institutional mandates.

While flexibility remains the primary driver of preference for mobile phones across all demographics, the nuances in reasons for preference highlight the adaptability of mobile learning to diverse educational contexts, whether in rural or urban settings, and across different age and experience groups.

4.3.10.

Mobile Phones, Online Applications, and Online Lectures

How do mobile phones, online applications and online lectures help students in English language learning?

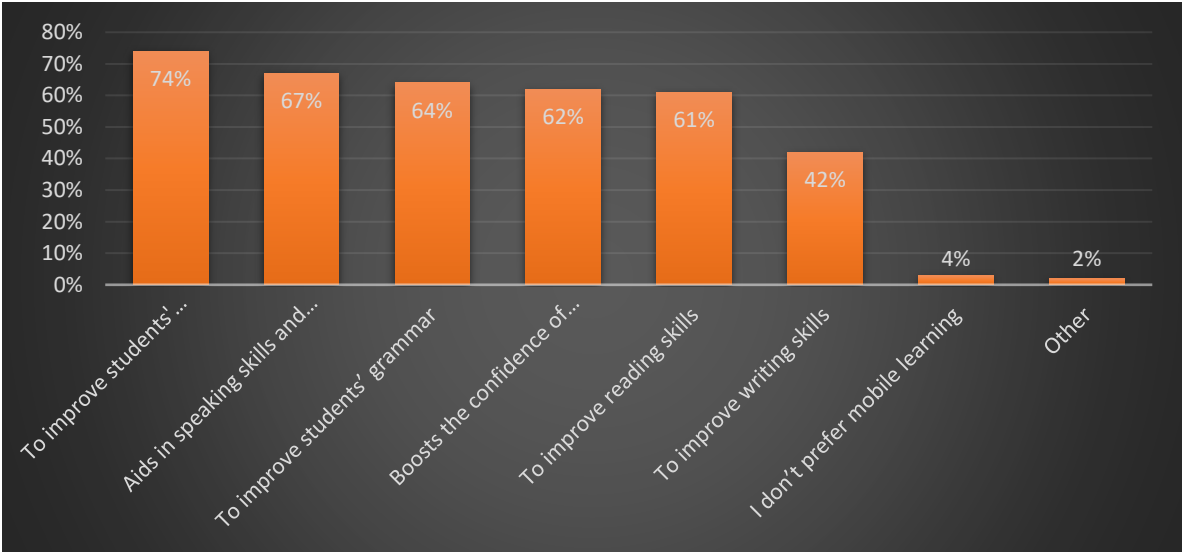


Chart 4.3.10: Mobile Phones, Online Apps and Lectures

How do mobile phones, online applications and online lectures help students in English language learning?	Percentage
To improve students’ pronunciation	74%
Aids in speaking skills and fluency	67%

To improve students' grammar	64%
Boosts the confidence of students to communicate in English	62%
To improve reading skills	61%
To improve writing skills	42%
I do not prefer mobile learning	4%
Other	2%

Table: 4.3.10: Mobile Phones, Online Apps and Lectures

With the prevalent preference among teachers for using mobile phones in the teaching and learning of the English language, it is evident that this small device yields effective results in students' language acquisition. "According to the relevant research, the Mobile-Assisted Language Learning can not only enhance students' English ability but also increase students learning motivation" (Ameri 1366). The versatility of mobile phones, coupled with online lectures and applications, provides numerous avenues for students to enhance their English language skills.

Students can engage in online English language practice through various applications, YouTube resources, online libraries, and learning materials, covering all four modules of language learning.

According to 74% of teachers, mobile phones play a pivotal role in improving pronunciation. Students can swiftly scroll through their mobile phones to learn new pronunciations. Furthermore, 67% of teachers believe that mobile phones contribute to honing speaking skills and fluency. Learners can leverage English videos with subtitles, learn a language with subtitle assistance, and practice with online peers, tutors, or through dedicated language learning applications.

For 64% of teachers, mobile phones, online lectures, and applications are instrumental in enhancing students' grammar proficiency, aiding them in framing and structuring proper sentences. A significant 62% of teachers agree that these tools can boost students' confidence in communicating in the English

language, addressing a common challenge where students may lose confidence when faced with communication difficulties.

According to 61% of teachers, mobile phones contribute to the improvement of students' reading skills. Students can practice reading through blogs and applications during their free time or while traveling, thereby expanding their vocabulary, and reinforcing their reading, writing, and speaking modules.

A noteworthy 42% of teachers observe that mobile learning aids in refining students' writing skills and reducing grammatical and spelling errors. Students can submit online assignments, scan their written work, send them to teachers, and engage in activities like filling in the blanks to enhance their proficiency.

Some teachers emphasize the role of mobile phones and research-based activities in enhancing learners' conceptual clarity. They believe that this approach promotes a creative method of learning, fostering creative and logical thinking among students. Moreover, teachers highlight that mobile learning aids in sharpening listening skills and provides instant feedback, enhancing the overall learning process for students. Teachers' insights underscore that mobile phones, online lectures, and applications are invaluable tools that significantly contribute to various aspects of English language learning, fostering comprehensive skill development among students.

4.3.11 Convenient mode for teaching English

Which is the most convenient mode for teaching the English language for teachers?

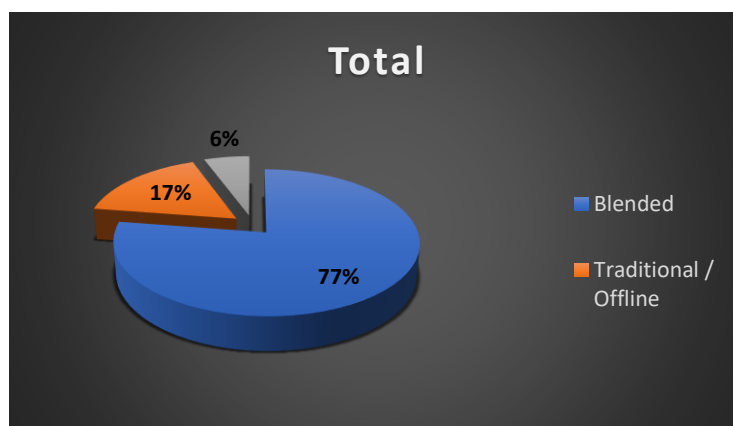


Chart 4.3.11: Mode of Teaching Convenience

Most convenient mode for teaching the English language?	Percentage
Blended	77
Traditional/ offline	17
Online	6

Table: 4.3.11: Mode of Teaching Convenience

The traditional method of learning, which has been ingrained and practiced for centuries, has evolved in India over the last decade with the integration of digital methods. While the exclusive online mode of learning gained prominence during the pandemic lockdown, it is not the predominant approach in India. Respondents indicate a preference for utilizing digital mediums in conjunction with traditional classroom teaching, embracing a blended learning model.

According to 77% of teachers, blended learning, combining both traditional and digital methods, is the most convenient mode of teaching for them. This approach allows for a balanced integration of time-tested teaching methods with the advantages offered by digital tools.

In contrast, 17% of teachers favour the traditional method of teaching, emphasizing the enduring value of conventional classroom practices. Only 6% of teachers find the online mode more convenient for teaching the English language, indicating that a fully online approach is less favoured among the respondents.

Most teachers in India find the blended learning approach to be the most suitable and convenient mode, highlighting the harmonious integration of traditional and digital elements in the educational landscape.

i) Rural and Urban

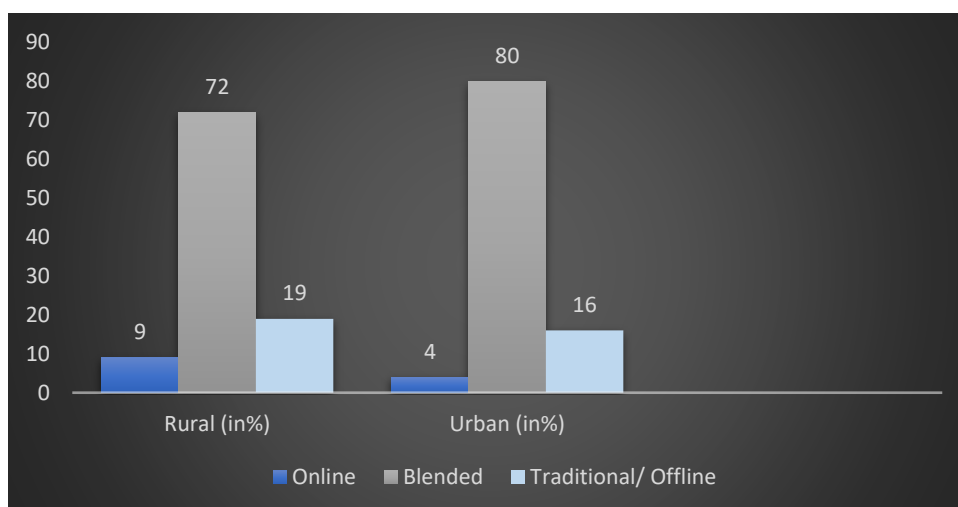


Chart 4.3.11-A: Mode of Teaching Convenience – Rural and Urban

Most convenient mode for teaching the English language?	Rural (in%)	Urban (in%)
Online	9	4
Blended	72	80
Traditional/ Offline	19	16

Table: 4.3.11A: Mode of Teaching Convenience – Rural and Urban

ii) Age Wise Distribution

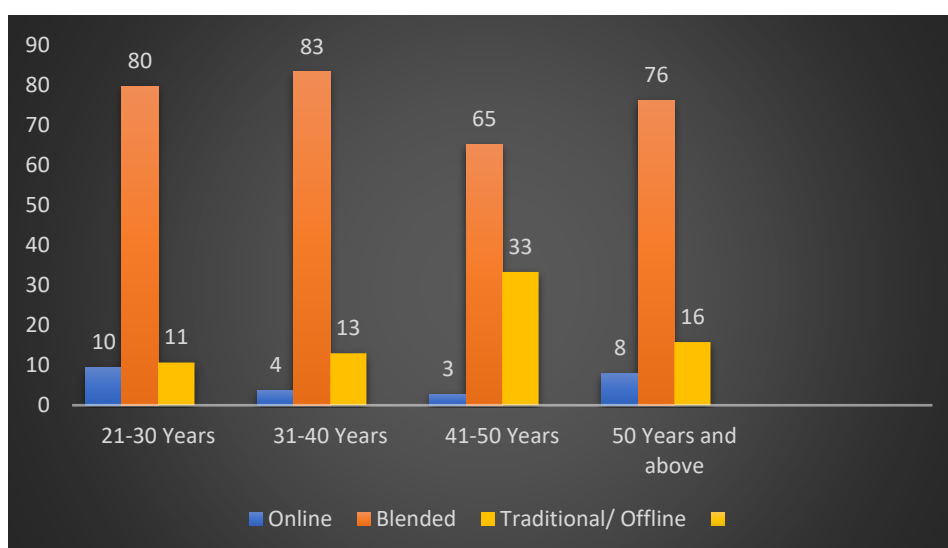


Chart 4.3.11-B: Mode of Teaching Convenience – Age

Most convenient mode for teaching the English language?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Online	10	4	3	8
Blended	80	83	65	76
Traditional/Offline	11	13	33	16

Table: 4.3.11-B Mode of Teaching Convenience – Age Wise Distribution

iii) Experience Wise Distribution

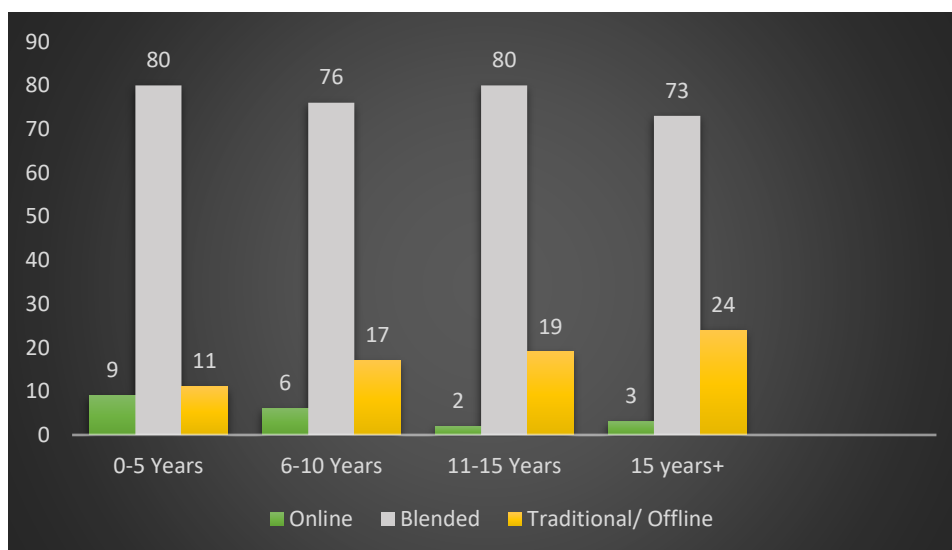


Chart 4.3.11-C: Mode of Teaching Convenience – Experience

Most convenient mode for teaching the English language?	0-5 Years	6-10 Years	11-15 Years	15 years+
Online	9	6	2	3
Blended	80	76	80	73
Traditional/ Offline	11	17	19	24

Table: 4.3.11-C Mode of Teaching Convenience – Experience Wise Distribution

Upon comparing respondents based on age, geographic location, and teaching experience, a consistent preference emerges for the blended learning method as the most convenient approach for teaching. Blended learning involves combining face-to-face instruction with digital methods and mediums. The majority of respondents across different demographics express a preference for blended learning, highlighting its versatility and effectiveness in integrating traditional and digital teaching elements.

In specific age groups, respondents aged 21-30 exhibit a nearly equal preference for both traditional and online methods, indicating a balanced inclination towards both offline and online learning. Nevertheless, the predominant choice for this age group, like others, remains the blended learning method. This suggests that, even among the younger generation, the blended learning approach is the most favoured mode for teaching English language learning.

Overall, respondents across various demographics demonstrate a preference for the blended learning method, considering it the most convenient and effective approach for teaching English.

4.4 Online Teaching and Learning Framework

The online teaching and learning framework segment in the questionnaire is designed to gather information about the role of mobile phones in the teaching and learning process of the English language. This section aims to explore the details and nuances associated with the integration of mobile phones into the educational framework.

4.4.1 Preference for Research

What do teachers prefer to research on any new topic?

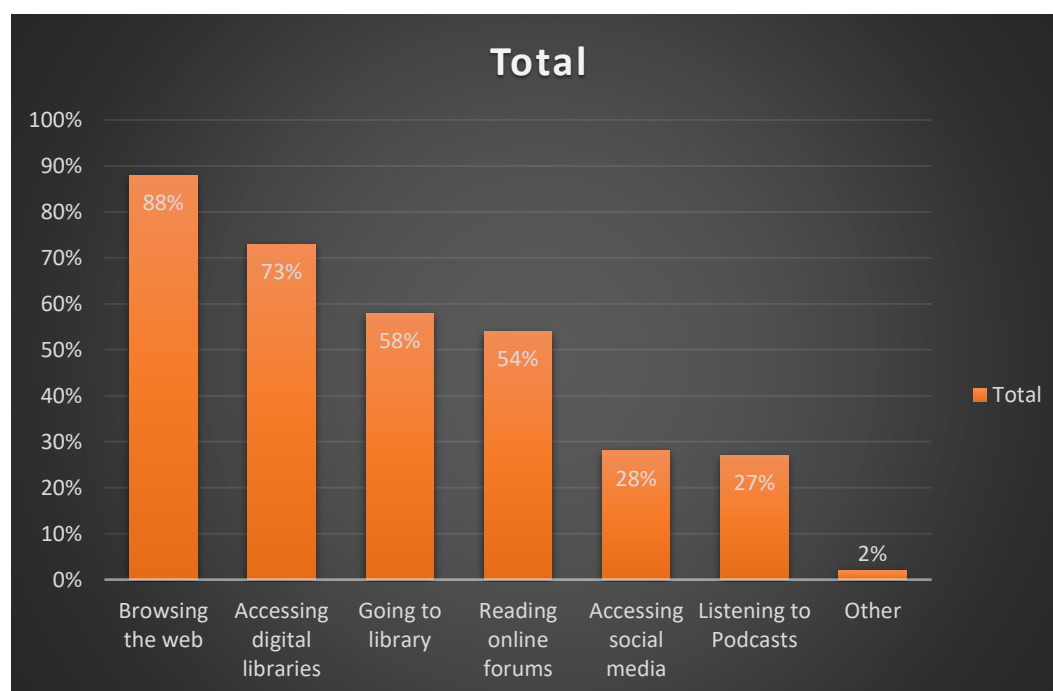


Chart 4.4.1: Preference for Research

What do teachers prefer to research on any new topic?	Percentage
Browsing the web	88%
Accessing digital libraries	73%
Going to library	58%
Reading online forums	54%
Accessing social media	28%
Listening to Podcasts	27%
Other	2%

Table: 4.4.1: Preference for Research

In the past, the primary resources for researching new topics and learning concepts were limited to books and libraries. However, with the advent of digital media, learners now have a plethora of options to explore and gain knowledge. Conducting a simple search by typing a keyword or topic into a search engine yields a diverse array of results, including videos, audios, texts, theses, articles, blogs, vlogs, PDFs, and news related to the chosen topic. This abundance of information offers learners countless avenues for learning.

As a testament to the prevalence of digital research, 88% of respondents indicate that they frequently utilize web searches to learn or research new topics. Digital libraries are another popular source, with 73% of respondents accessing them. The flexibility and resource-saving aspects of digital sources contribute to their popularity among learners.

Interestingly, 58% of learners still prefer traditional libraries. This preference may stem from the fact that some teachers are more comfortable with paperback books than digital alternatives, and there is a prevailing reliance on physical books for reading and learning among this group.

In terms of teacher preferences, 54% read online forums, 28% access social media, and 27% listen to podcasts. This indicates a growing use of digital tools among teachers for staying updated and engaged in their respective fields.

The overarching trend is that digital tools are increasingly preferred for researching new topics, with 88% of respondents endorsing web searches as their primary method. The flexibility and wealth of resources offered by digital platforms make them invaluable tools for both learners and teachers in the pursuit of knowledge.

ii) Rural and Urban

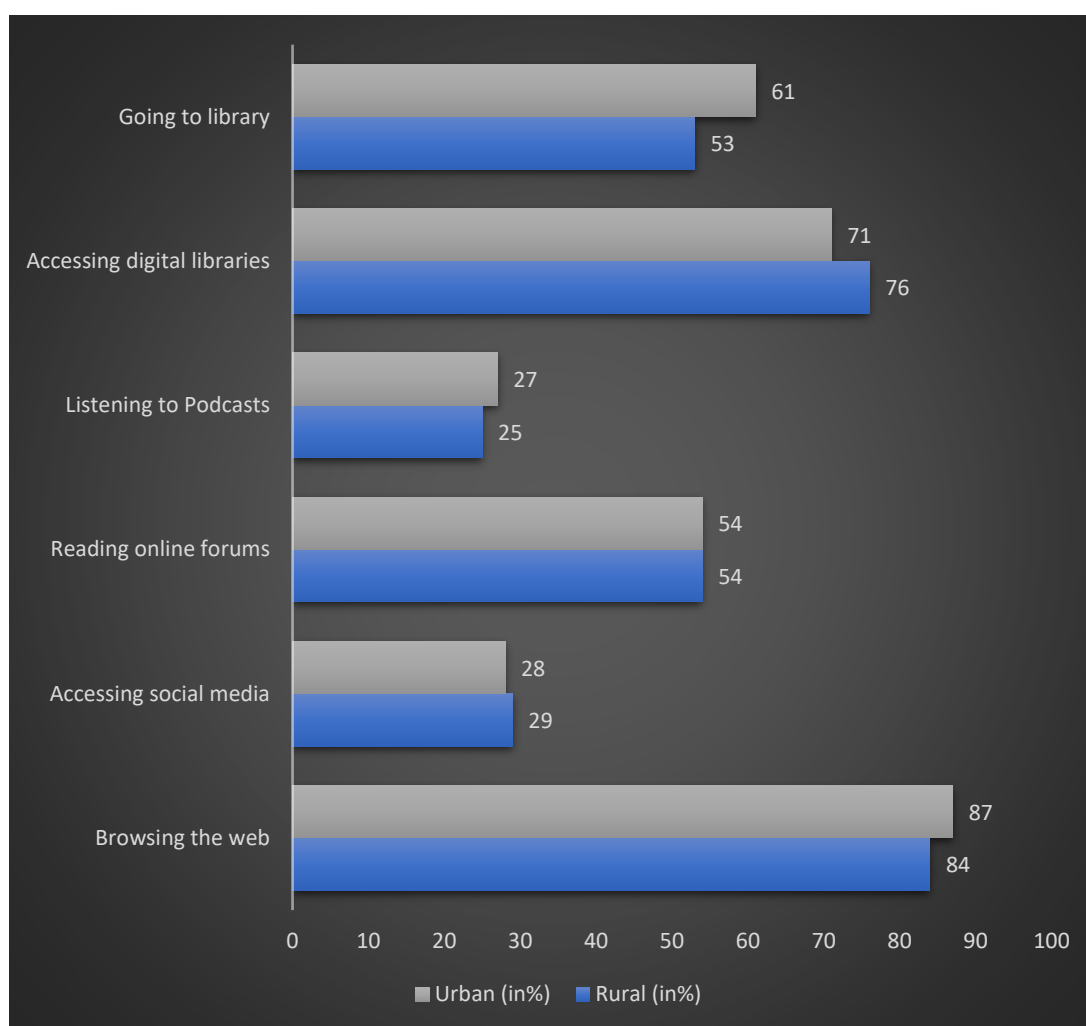


Chart 4.4.1-A: Preference for Research – Rural and Urban

What do teachers prefer to research on any new topic?	Rural (in%)	Urban (in%)
Browsing the web	84	87
Accessing digital libraries	76	71
Reading online forums	54	54
Going to library	53	61
Accessing social media	29	28
Listening to Podcasts	25	27

Table: 4.4.1-A: Preference for Research - Rural and Urban

iii) Age Wise Distribution

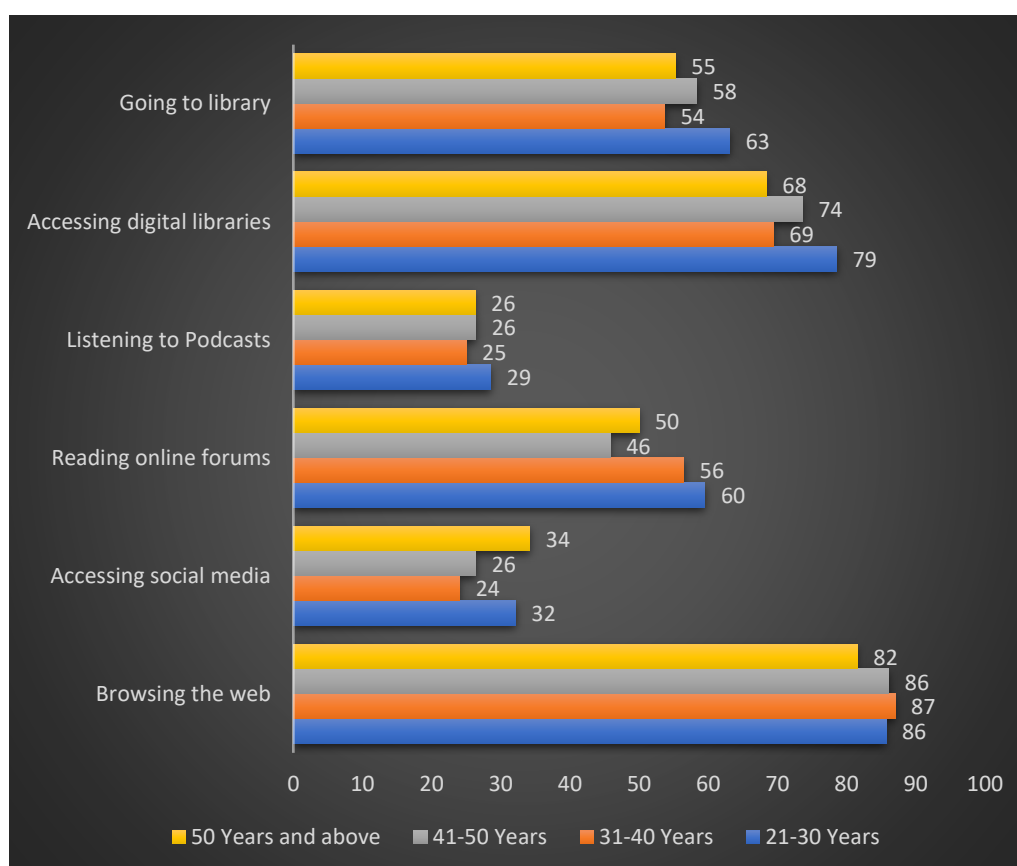


Chart 4.4.1-B: Preference for Research – Age

What do teachers prefer to research on any new topic?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Browsing the web	86	87	86	82
Accessing digital libraries	79	69	74	68
Going to library	63	54	58	55
Reading online forums	60	56	46	50
Accessing social media	32	24	26	34
Listening to Podcasts	29	25	26	26

Table: 4.4.1-B: Preference for Research – Age

iv) **Experience Wise Distribution**

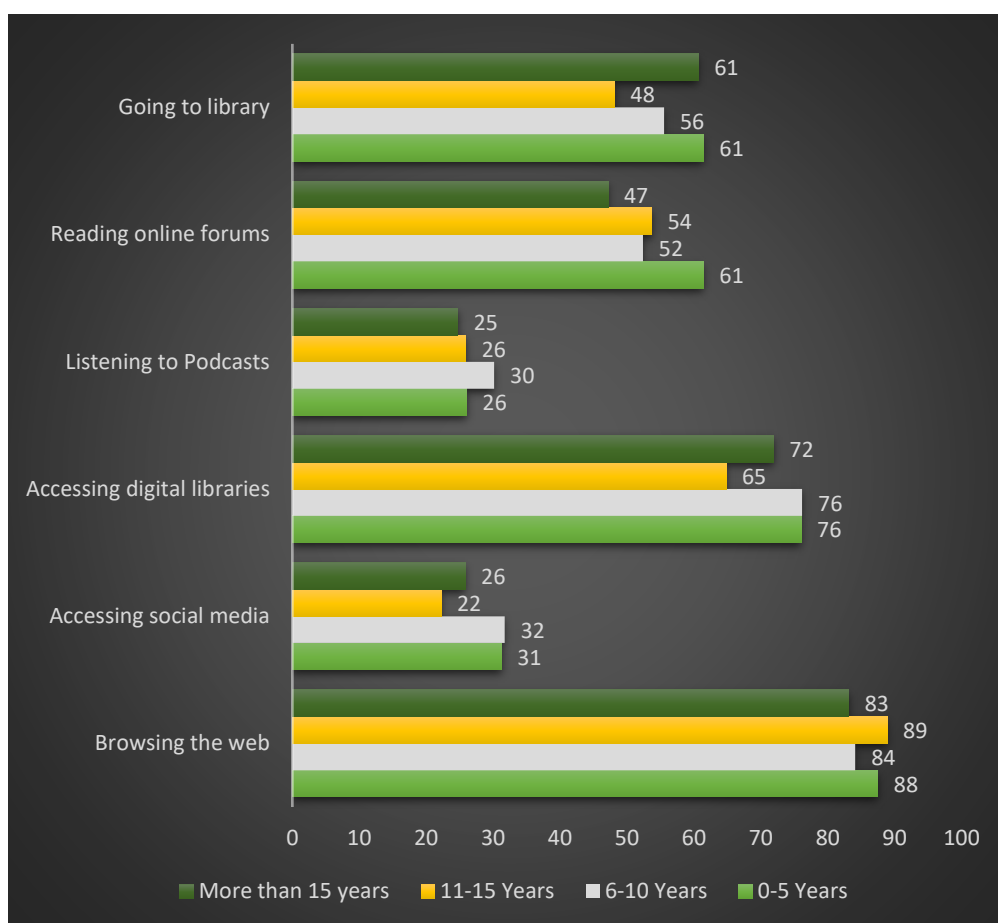


Chart 4.4.1-C: Preference for Research – Experience

What do teachers prefer to research on any new topic?	0-5 Years	6-10 Years	11-15 Years	15 Years +
Browsing the web	88	84	89	83
Accessing digital libraries	76	76	65	72
Reading online forums	61	52	54	47
Going to Library	61	56	48	61
Accessing social media	31	32	22	26
Listening to Podcasts	26	30	26	25

Table: 4.4.1-C: Preference for Research – Experience

In conducting an area-wise analysis, there is a consistent pattern in the preference for researching new topics, with no significant differences between urban and rural areas. Across both settings, the top choice for respondents is browsing the web, followed closely by accessing digital libraries. This similarity underscores the universal appeal of web-based learning and the convenience offered by online resources.

In both urban and rural areas, respondents prioritize web-based learning through browsing and digital libraries, emphasizing the flexibility and convenience these platforms provide. In rural areas, the third most preferred choice is reading online forums, while in urban areas, going to a physical library holds the third spot. This distinction reflects the varying accessibility of libraries and facilities between urban and rural environments.

When the analysis is extended to different age groups or teaching experience levels, a similar research pattern emerges. Browsing the web remains the most favoured method across all demographics, showcasing its widespread popularity. Conversely, listening to podcasts consistently emerges as the least preferred option for all respondents, indicating a lower inclination towards this form of learning regardless of age or teaching experience.

Considering geographical location, age group, or teaching experience, the preference for researching new topics follows a consistent trend. Browsing the web is the predominant choice, emphasizing its broad appeal and the convenience it offers, while listening to podcasts remains the least favored option across all demographics.

4.4.2 Teaching Hours

How many hours per week do teachers teach online?

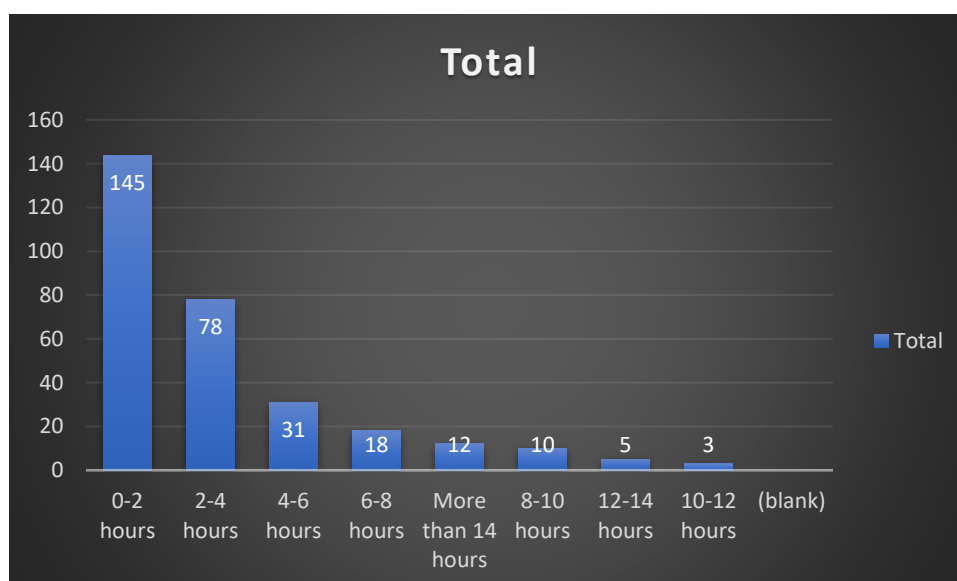


Chart 4.4.2: Teaching Hours

Number of Hours	Number of respondents	Percentage
0-2	145	48%
2-4	78	26%
4-6	31	10%
6-8	18	6%
8-10	10	3%
10-12	3	1%
12-14	5	2%
More than 14	12	4%

Table: 4.4.2: Teaching Hours

Teachers overwhelmingly prefer blended learning over exclusive online methods and allocate the majority of their teaching time to face-to-face methods, incorporating online elements for enhanced efficiency. Out of a total of 302 teachers surveyed, 48% (145 teachers) dedicate 0-2 hours per week to

online teaching, underscoring the preference for traditional face-to-face teaching methods.

Breaking down the time allocation further, 26% of teachers devote 2-4 hours a week to online teaching, representing less than an hour per day. A smaller proportion, 10% of teachers, spend 4-6 hours weekly on online teaching, while 6% dedicate 6-8 hours, averaging approximately an hour per day. A minimal percentage of teachers, 4%, indicate that they invest more than 14 hours a week in online teaching.

This distribution highlights that the majority of teachers prioritize face-to-face teaching, utilizing online methods in a supplementary capacity for a more comprehensive and efficient educational approach.

i) Rural & Urban

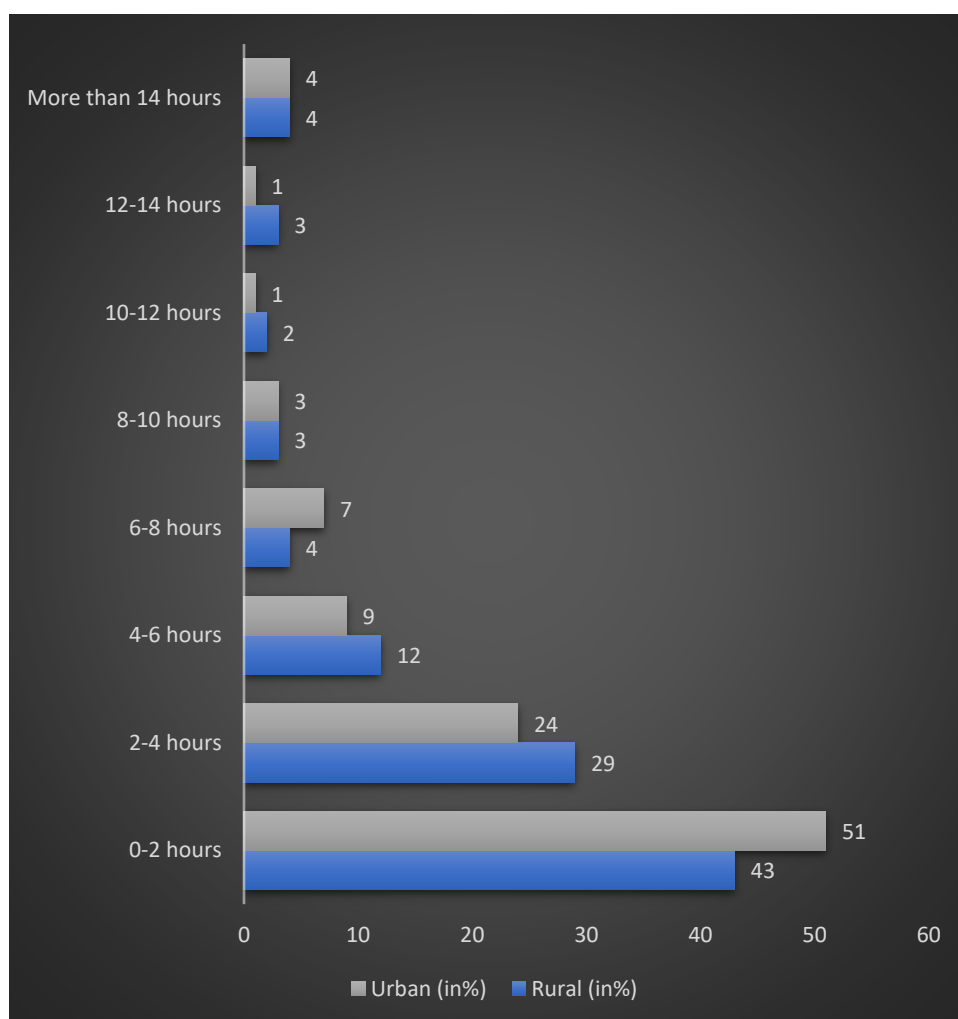


Chart 4.4.2-A: Teaching Hours – Rural and Urban

Number of Hours	Rural (in%)	Urban (in%)
0-2 hours	43	51
2-4 hours	29	24
4-6 hours	12	9
6-8 hours	4	7
8-10 hours	3	3
10-12 hours	2	1
12-14 hours	3	1
More than 14 hours	4	4

Table: 4.4.2-A: Teaching Hours -Rural and Urban

ii) Age Wise Distribution

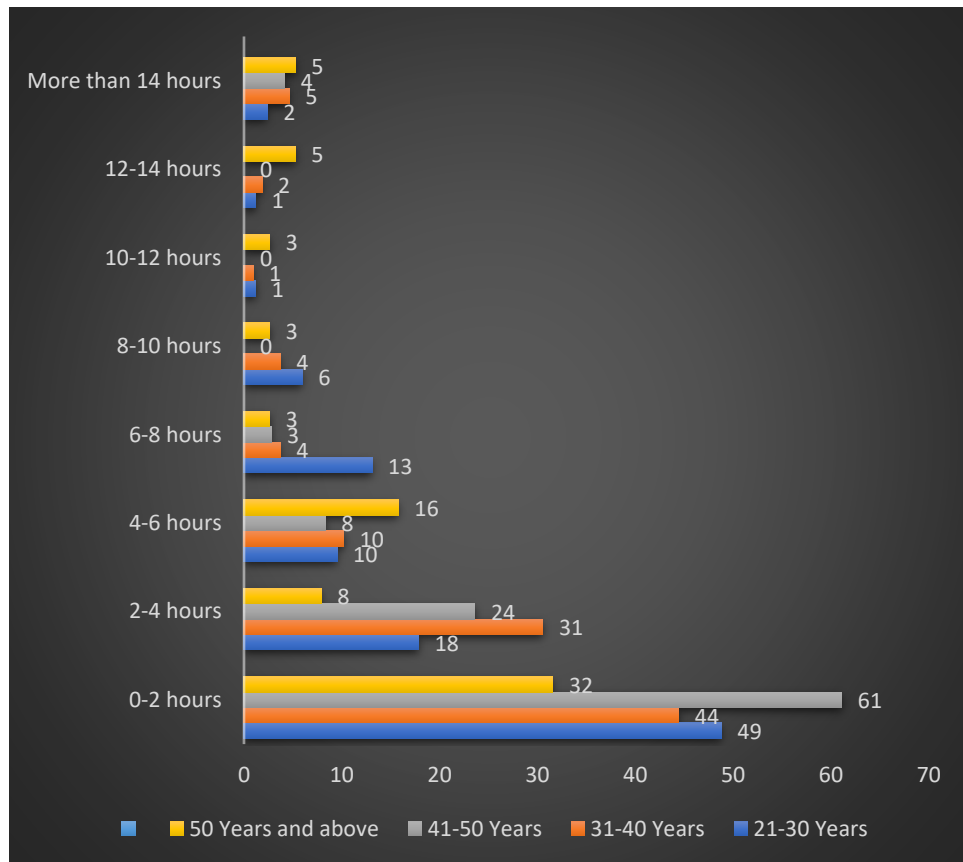


Chart 4.4.2-B: Teaching Hours – Age

Number of Hours	21-30 Years	31-40 Years	41-50 Years	50 Years +
0-2 hours	49	44	61	32
2-4 hours	18	31	24	8
4-6 hours	10	10	8	16
6-8 hours	13	4	3	3
8-10 hours	6	4	0	3
10-12 hours	1	1	0	3
12-14 hours	1	2	0	5
More than 14 hours	2	5	4	5

Table: 4.4.2-B: Teaching Hours – Age

iii) Experience Wise Distribution

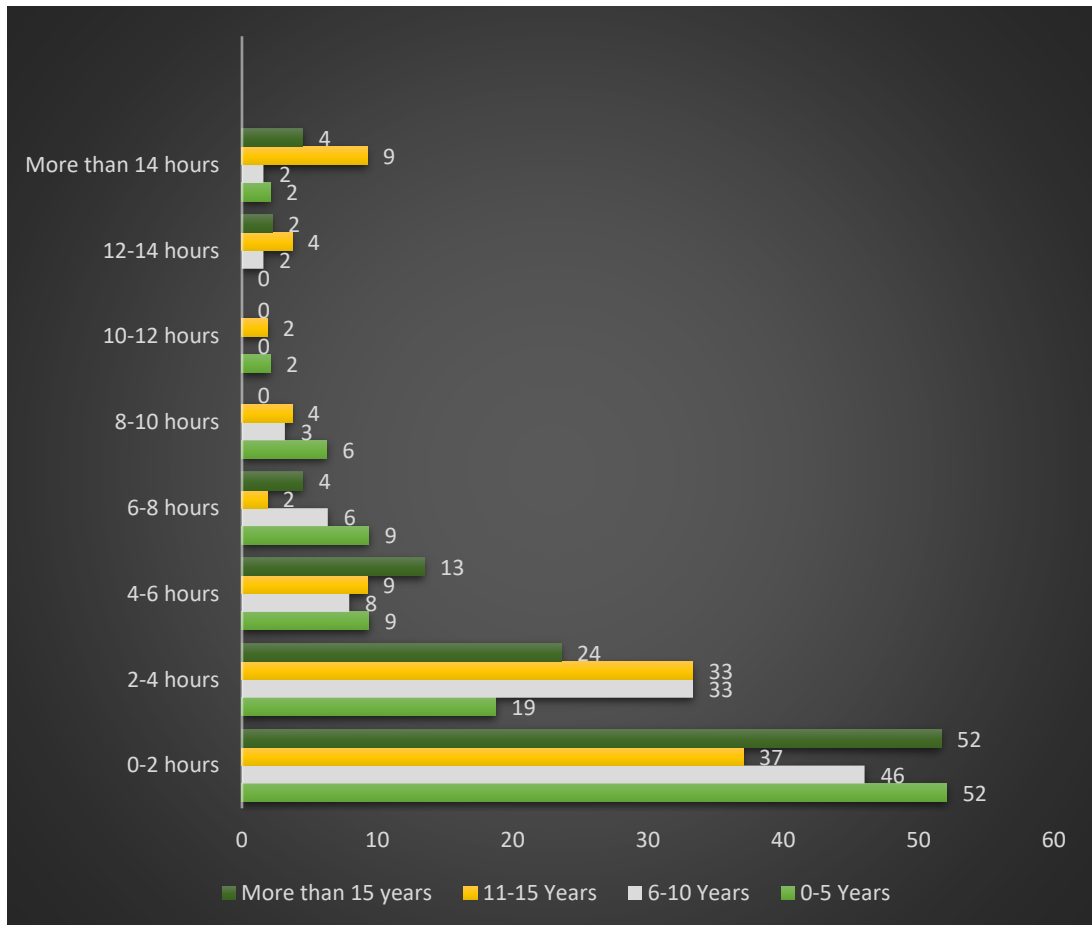


Chart 4.4.2-C: Teaching Hours – Experience

Number of Hours	0-5 Years	6-10 Years	11-15 Years	15 years+
0-2 hours	52	46	37	52
2-4 hours	19	33	33	24
4-6 hours	9	8	9	13
6-8 hours	9	6	2	4
8-10 hours	6	3	4	0
10-12 hours	2	0	2	0
12-14 hours	0	2	4	2
14 hours+	2	2	9	4

Table: 4.4.2-C: Teaching Hours – Experience

The prevalence of online teaching methods peaked during the pandemic lockdown period. However, following the reopening of schools’ post-pandemic, there has been a substantial reduction in the utilization of online teaching. Currently, in the present time, online teaching is not as common, with most teachers favouring face-to-face classes. The majority of teachers spend 0-2 hours on online teaching.

This trend is consistent across both rural and urban areas, encompassing various age groups and respondents with different years of teaching experience. The predominant pattern is that most respondents, regardless of these variables, allocate only 0-2 hours per week to online teaching, with the second most common timeframe being 2-4 hours a week. Notably, a substantial portion of respondents does not dedicate time specifically to online teaching; instead, they leverage digital tools as supplementary aids in the teaching process. This underscores a shift away from extensive online teaching in the current educational landscape.

4.4.3 Internet Access

How often do teachers access the internet to get teaching and learning resources?

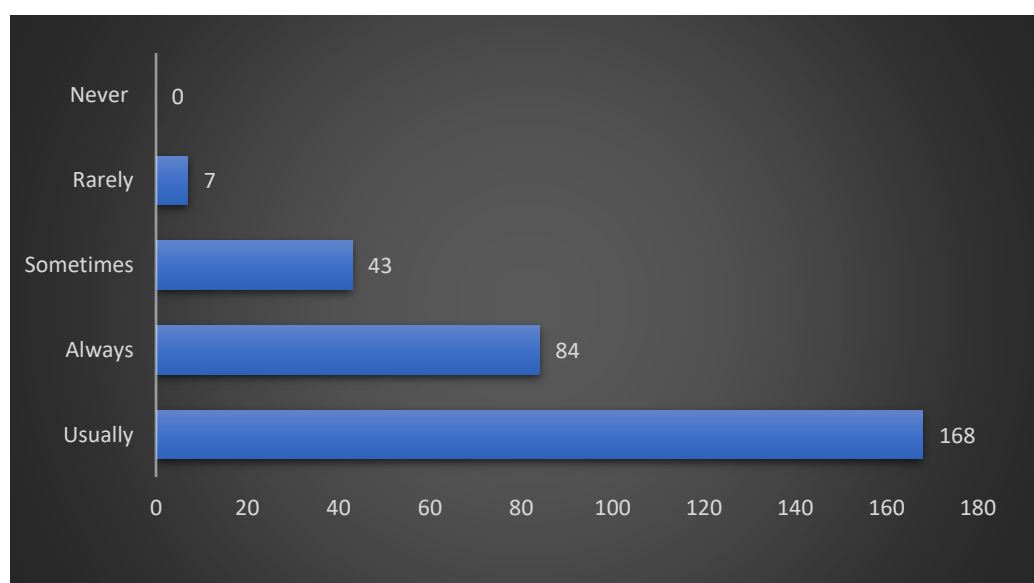


Chart 4.4.3: Internet Access

How often do teachers access the internet to get learning resources?	Count of responses	Percentage
Usually	168	56%
Always	84	28%
Sometimes	43	14%
Rarely	7	2%
Never	0	0%

Table: 4.4.3: Internet Access

Searching for reading and learning materials on the internet has become a ubiquitous practice, with a significant majority accessing it through the convenience of mobile phones. Among the surveyed teachers, 56% acknowledged that they usually access the internet for obtaining learning materials. Additionally, 28% of teachers consistently prefer the internet as their primary source for accessing reading material.

Furthermore, 14% of teachers indicated a flexible approach, sometimes relying on the internet and sometimes not. A small percentage, 2%, reported rarely preferring the internet, but it is noteworthy that there was not a single respondent who abstained from using the internet to access learning materials.

This underscores the widespread adoption of the internet as a common and highly favoured medium for English language learning among teachers. The ease of access, especially through mobile phones, has contributed to the internet's prominence in facilitating the acquisition of learning resources.

i) Rural & Urban

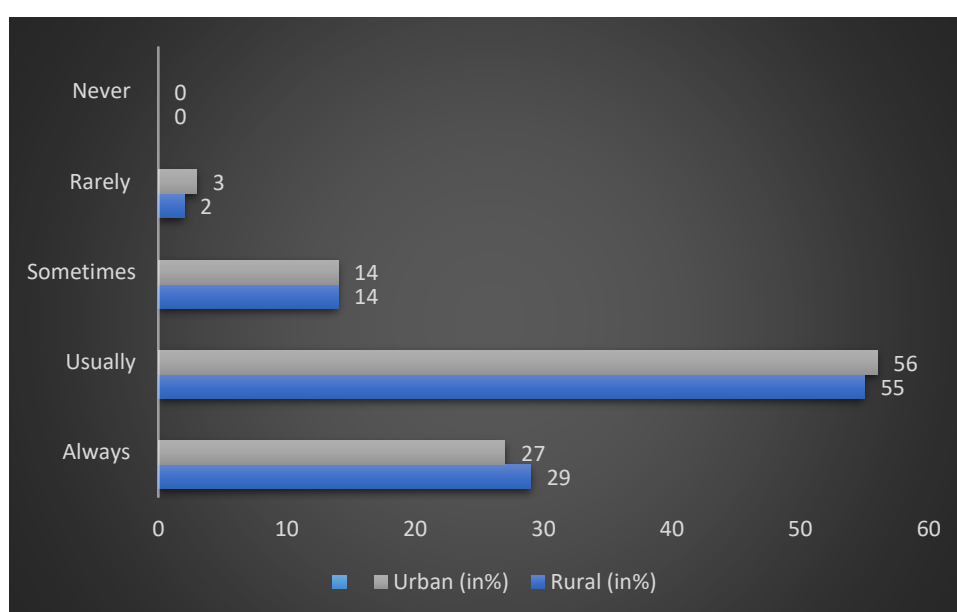


Chart 4.4.3-A: Internet Access – Rural and Urban

How often do teachers access the internet to get learning resources?	Rural (in%)	Urban (in%)
Always	29	27
Usually	55	56
Sometimes	14	14
Rarely	2	3
Never	0	0

Table: 4.4.3-A: Internet Access – Rural and Urban

ii) **Age Wise Distribution**

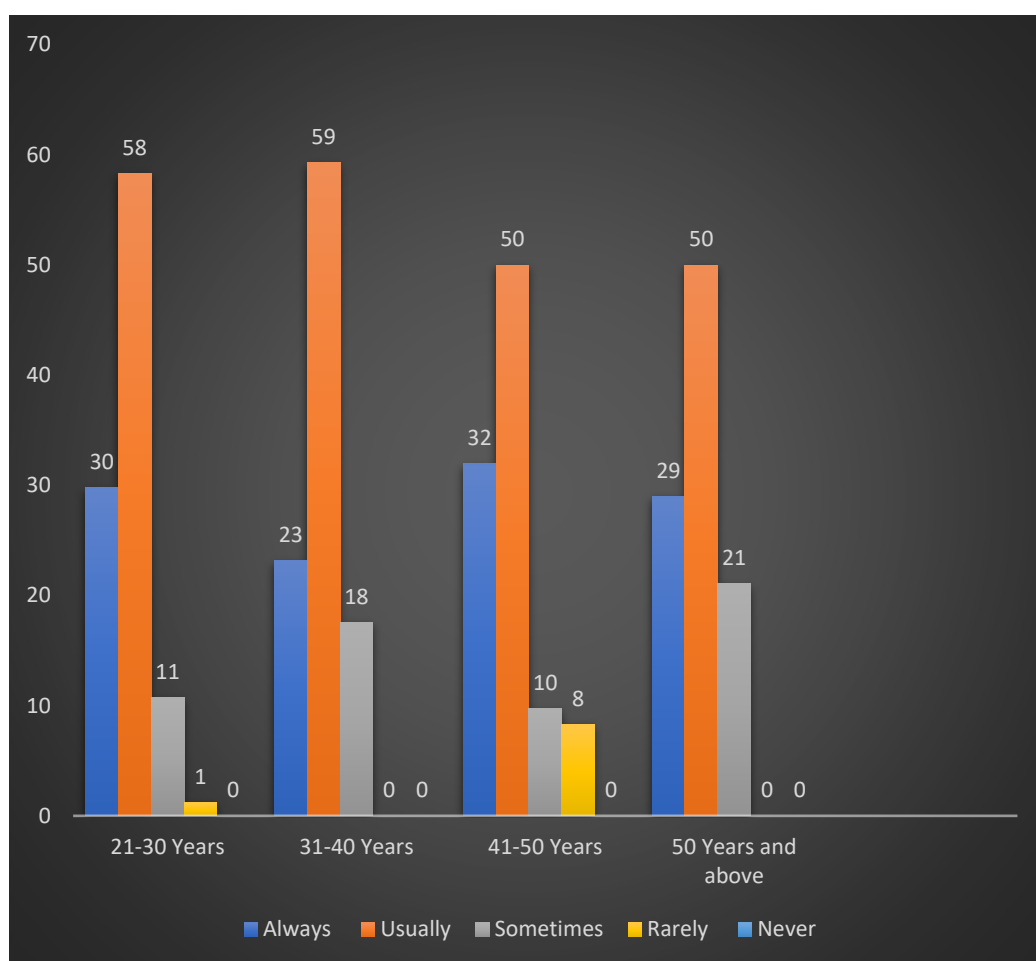


Chart 4.4.3-B: Internet Access – Age

How often do teachers access the internet to get learning resources?	21-30 Years	31-40 Years	41-50 Years	50 Years+
Always	30	23	32	29
Usually	58	59	50	50
Sometimes	11	18	10	21
Rarely	1	0	8	0
Never	0	0	0	0

Table: 4.4.3-B: Internet Access - Age

iii) Experience Wise Distribution

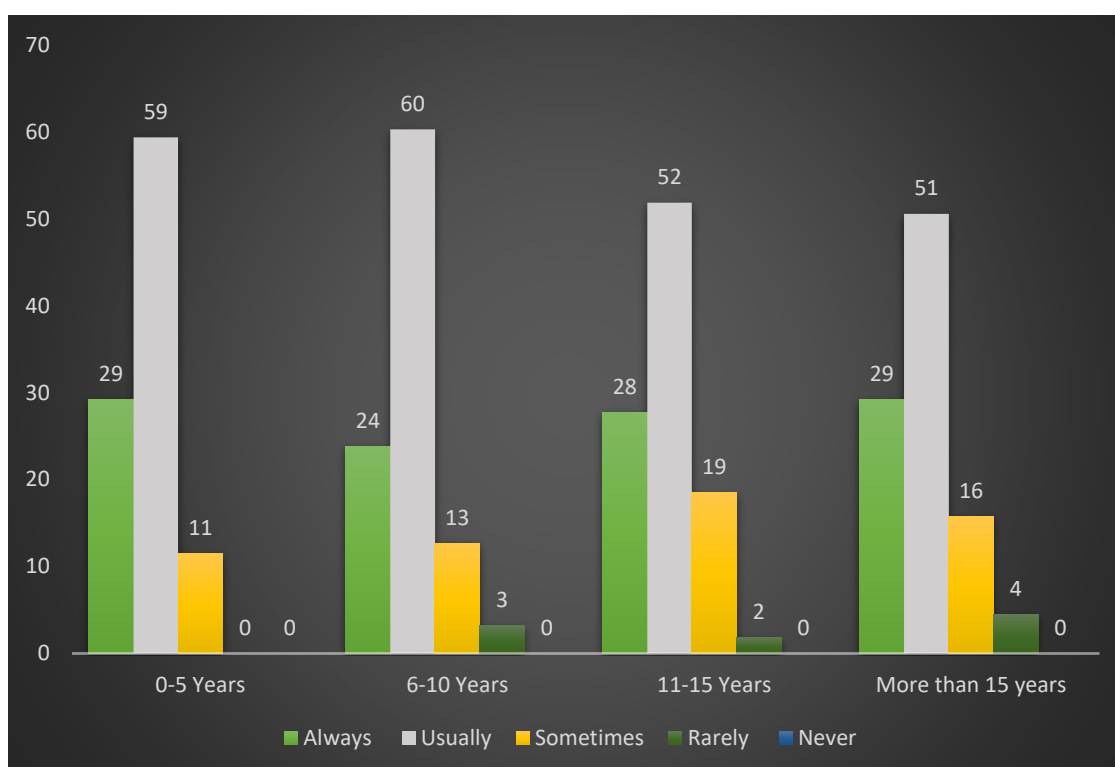


Chart 4.4.3-C: Internet Access – Experience

How often do teachers access the internet to get learning resources?	0-5 Years	6-10 Years	11-15 Years	15 years+
Always	29	24	28	29
Usually	59	60	52	51
Sometimes	11	13	19	16
Rarely	0	3	2	4
Never	0	0	0	0

Table: 4.4.3-C: Internet Access - Experience

4.4.4 Teaching Aid

Which teaching aid do teachers use every day for English language teaching?

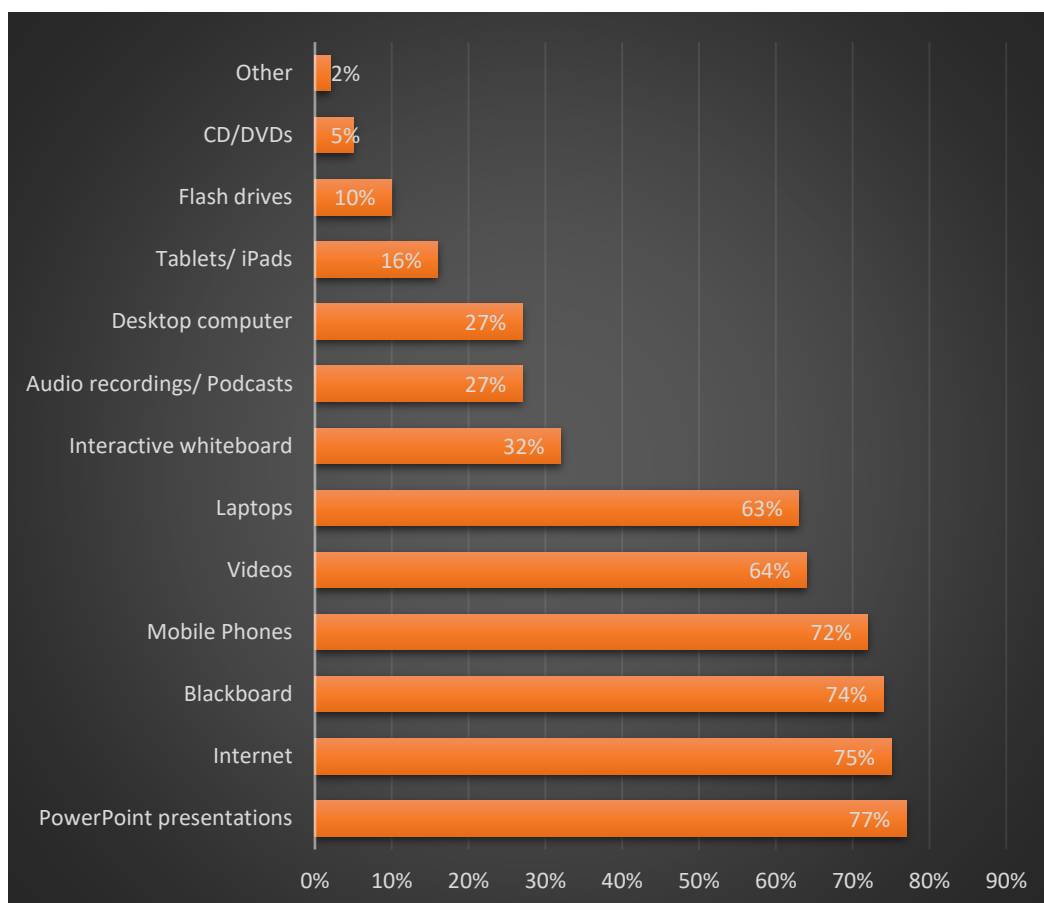


Chart 4.4.4: Teaching Aid

Teaching aid that teachers use every day for English language teaching?	Percentage
PowerPoint presentations	77%
Internet	75%
Blackboard	74%
Mobile Phones	72%
Videos	64%
Laptops	63%

Interactive Whiteboard	32%
Desktop computer	27%
Audio recordings/ Podcasts	27%
Tablets/ iPads	16%
Flash drives	10%
CD/DVDs	5%
Other	2%

Table: 4.4.4: Teaching Aid

In the realm of traditional teaching methods, instructors commonly employed blackboards and chalk alongside textbooks. However, the advent of digitalization has led to a fusion of traditional and digital approaches in classrooms as it benefits the learning of students, “In the classroom, English language teachers’ technology use has been found to offer various benefits, including skill development, increasing participation and engagement, catering for diversity, increasing student motivation, development of bilingualism, increasing academic performance, and enhancing parental engagement” (Moorhouse and Yan 02). Teachers now integrate digital mediums as aids in face-to-face learning, enhancing the overall teaching experience. Notably, PowerPoint (PPT) presentations emerge as the most utilized digital medium, with 77% of teachers incorporating them, closely followed by the internet, employed by 75% of teachers.

Despite the growing use of digital tools, the traditional method with face-to-face learning remains irreplaceable. Blackboards continue to be a staple in education, with 74% of teachers incorporating them into their everyday teaching practices. Mobile phones have become the most used digital device in

this blended approach, with 72% of respondents citing their frequent use in digital teaching, learning, and topic exploration. Sharing and showcasing videos, recognized for their ability to enhance student retention, are integrated by 64% of teachers in their daily teaching routines. Laptops are employed by 63% of teachers, while 32% utilize interactive whiteboards. Desktop computers, while not as prevalent as laptops and mobile phones, are still employed by 27% of respondents.

Audio recordings and podcasts, valuable for enhancing listening abilities and expanding vocabulary, find application in the teaching methods of 27% of respondents. Tablets and iPads are less commonly preferred, being used by 16% of teachers. Flash drives are utilized by 10% of respondents, and CDs/DVDs find application with 5% of teachers. A small percentage (2%) of respondents employ smart TVs, digital pads, tablets, and iPads, while not as commonly used, are employed by 16% of teachers. Flash drives find application with 10% of respondents, offering a portable means of data storage, while CDs/DVDs are used by 5% of teachers.

Beyond these common tools, a diverse range of digital resources is also integrated into teaching practices. For instance, 27% of respondents leverage audio recordings and podcasts to enhance students' listening abilities and introduce new vocabulary. Additionally, 2% of teachers utilize smart TVs, digital pads, and other tools, showcasing the evolving landscape of technology integration in English language learning (ELL) classrooms.

This amalgamation of traditional and digital methods reflects the adaptability of educators in embracing diverse tools to create engaging and effective learning environment.

i) **Rural and Urban:**

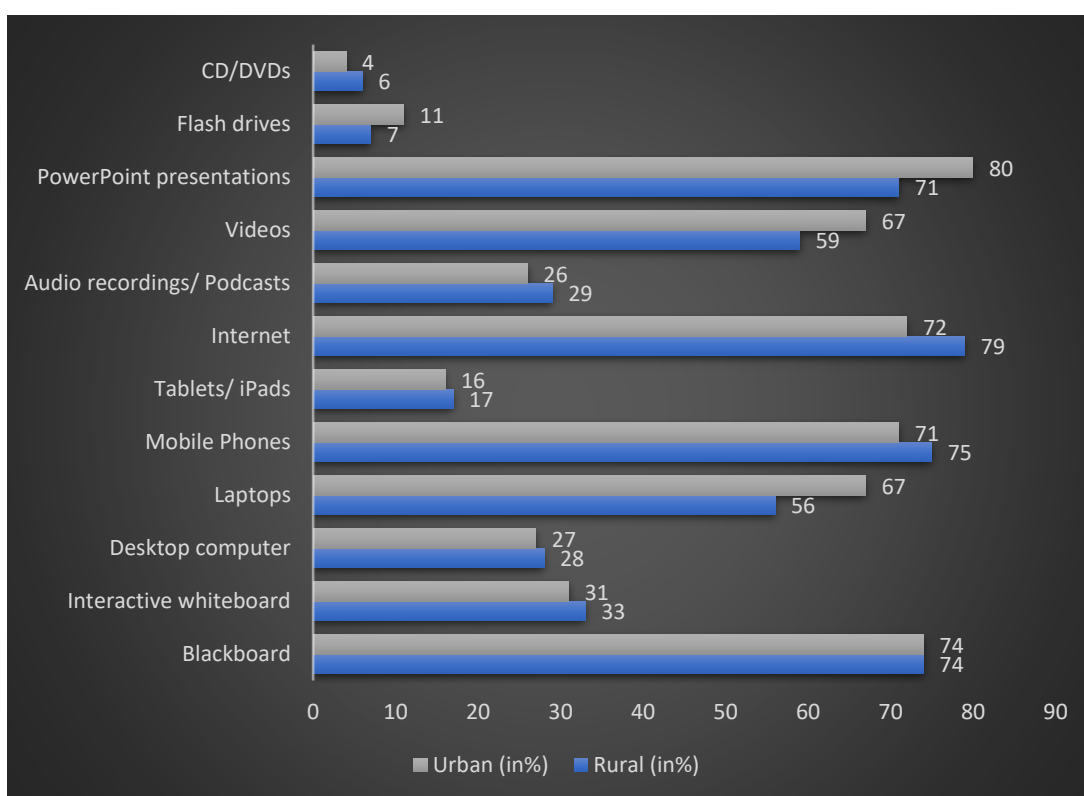


Chart 4.4.4-A: Teaching Aid – Rural and Urban

Teaching aid that teachers use every day for English language teaching?	Rural (in%)	Urban (in%)
Internet	79	72
Mobile Phones	75	71
Blackboard	74	74
PPT presentations	71	80
Videos	59	67
Laptops	56	67
Interactive whiteboard	33	31
Audio recordings/ Podcasts	29	26
Desktop computer	28	27
Tablets/ iPads	17	16
Flash drives	7	11
CD/DVDs	6	4

Table: 4.4.4-A: Teaching Aid – Rural and Urban

ii) **Age Wise Distribution**

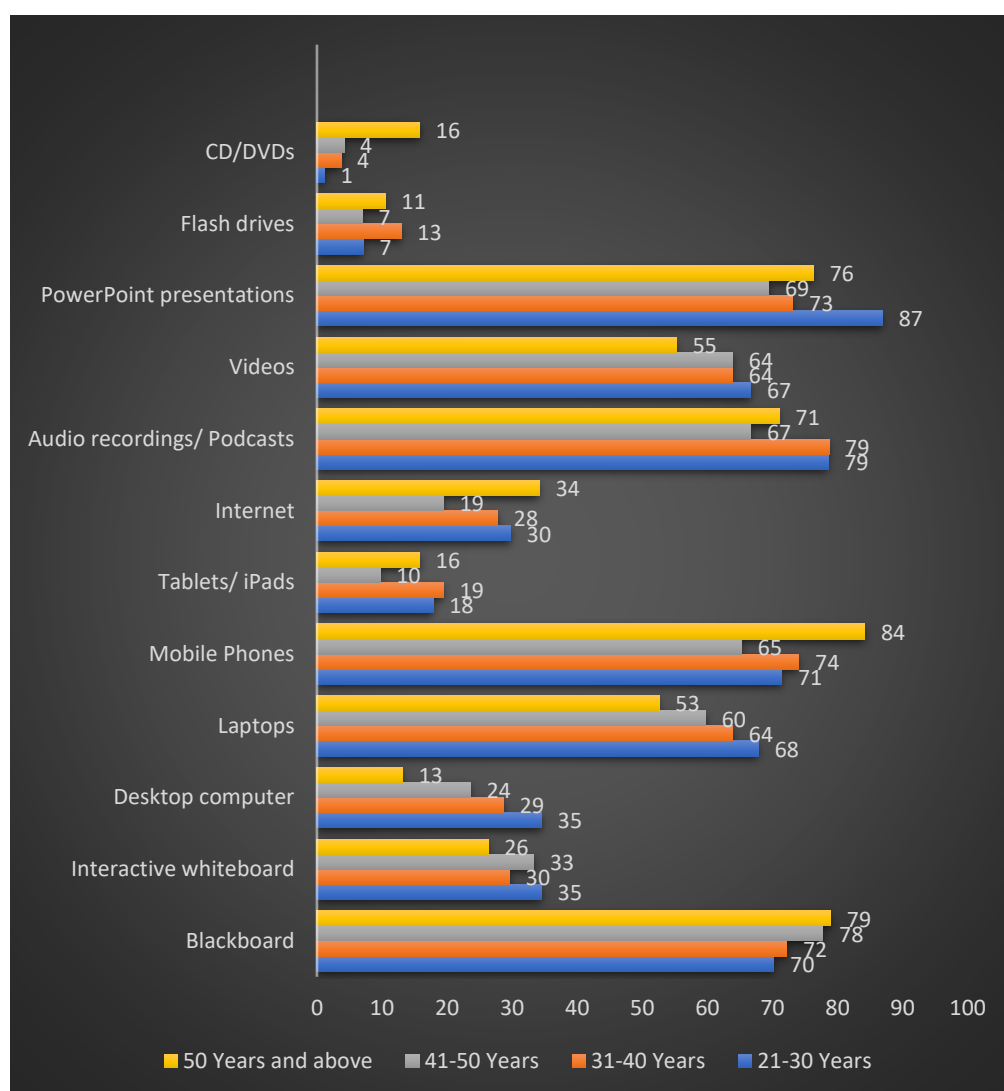


Chart 4.4.4-B: Teaching Aid – Age

Teaching aid that teachers use every day for English language teaching?	21-30 Years	31-40 Years	41-50 Years	50 Years +
PowerPoint Presentations	87	73	69	76
Audio Recordings/ Podcasts	79	79	67	71
Mobile Phones	71	74	65	84
Blackboard	70	72	78	79
Laptops	68	64	60	53

Videos	67	64	64	55
Interactive whiteboard	35	30	33	26
Desktop Computer	35	29	24	13
Internet	30	28	19	34
Tablets/ iPads	18	19	10	16
Flash drives	7	13	7	11
CD/DVDs	1	4	4	16

Table: 4.4.4-B: Teaching Aid – Age

iii) Experience Wise Distribution

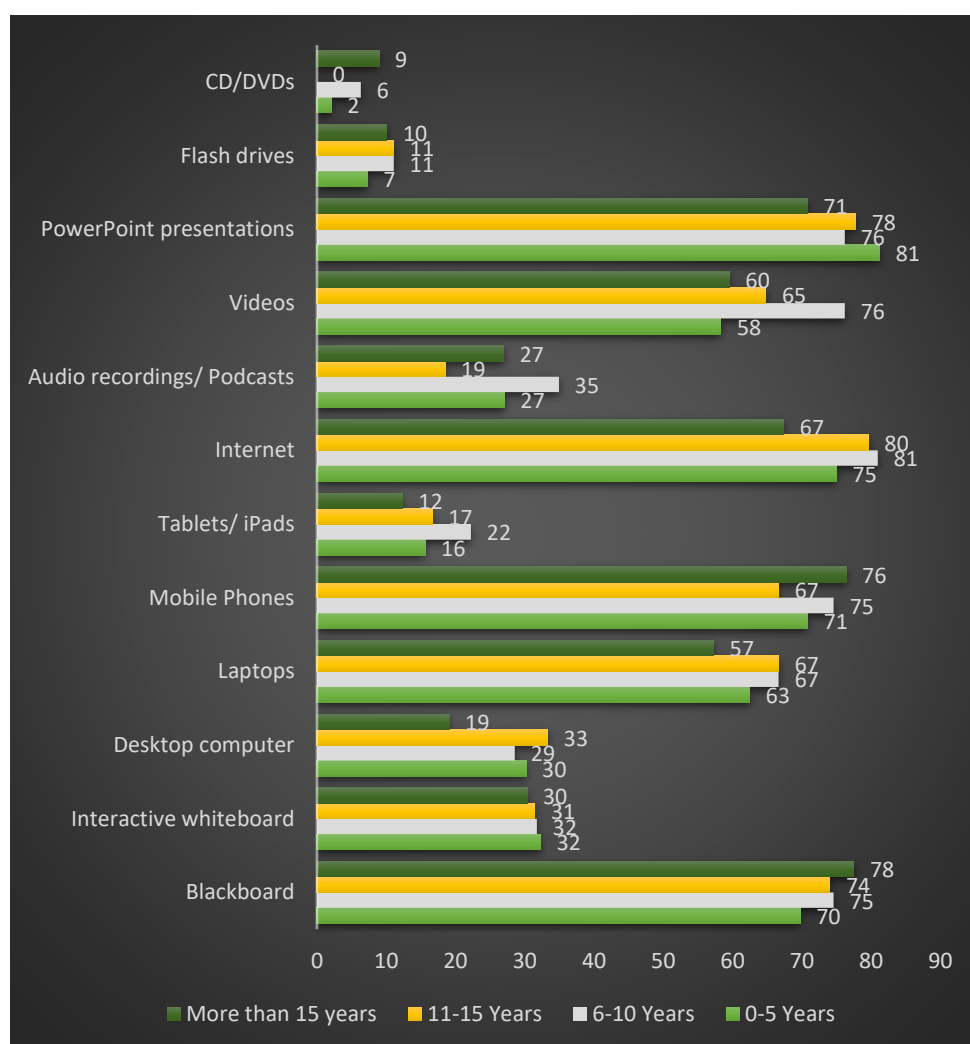


Chart 4.4.4-C: Teaching Aid – Experience

Teaching aid that teachers use every day for English language teaching?	0-5 Years	6-10 Years	11-15 Years	15 years+
PowerPoint presentations	81	76	78	71
Internet	75	81	80	67
Mobile Phones	71	75	67	76
Blackboard	70	75	74	78
Laptops	63	67	67	57
Videos	58	76	65	60
Interactive whiteboard	32	32	31	30
Desktop computer	30	29	33	19
Audio Recordings/Podcasts	27	35	19	27
Tablets/ iPads	16	22	17	12
Flash Drives	7	11	11	10
CD/DVDs	2	6	0	9

Table: 4.4.4-C: Teaching Aid – Experience

In rural areas, 79% of respondents indicate that the internet is used daily for English Language Teaching (ELT), with mobile phones closely following at 75%. On the other hand, in urban areas, daily ELT teaching aids are led by PowerPoint (PPT) presentations, followed by the blackboard, internet, and mobile phones. Interestingly, both urban and rural areas show a similar utilization of mobile phones and the blackboard.

When analysed based on age groups, respondents aged 21-30 commonly use PPT presentations daily, while those in the 31-40 age group prefer audio recordings/podcasts. For respondents aged 41-50, the blackboard is the preferred daily teaching aid, and those aged 50 and above predominantly use mobile phones for everyday teaching. The age-wise preferences for mobile phones as a daily teaching aid vary among the different age groups.

Tablets/iPads, flash drives, and CDs/DVDs are consistently the least preferred digital aids across all age groups.

Examining the data based on teaching experience, the least experienced respondents commonly use PPT presentations daily. In contrast, those with 6-10 years and 11-15 years of experience predominantly use the internet, with PPT presentations also being favoured. Respondents with 15 years or more of experience majorly rely on the blackboard for daily teaching, followed by mobile phones. These findings highlight that each experience group tends to use different digital devices for daily teaching aids, with common tools including PPT presentations, blackboards, the internet, and mobile phones.

4.4.5 Teaching Learning Resources

How do teachers circulate study material to students?

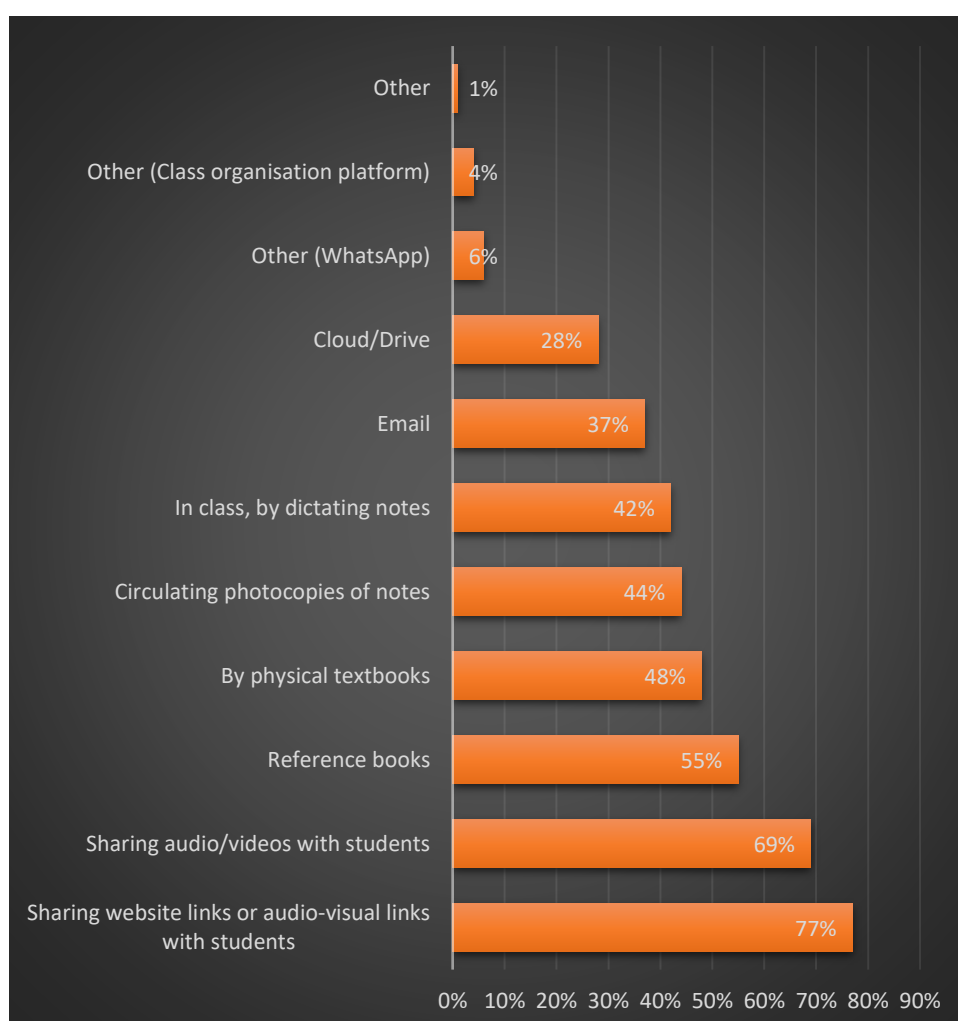


Chart 4.4.5: Teaching Learning Resources

How do teachers circulate learning resources to students?	Percentage
Sharing website links or audio-visual links with students	77%
Sharing audio/videos with students	69%
Reference books	55%
By physical textbooks	48%
Circulating photocopies of notes	44%
In class, by dictating notes	42%
Email	37%
Cloud/Drive	28%
Other (WhatsApp)	6%
Other (Class organisation platform)	4%
Other	1%

Table: 4.4.5: Teaching Learning Resources

Most teachers actively utilize digital mediums to share study materials with their students for English Language Learning (ELL) as “With the internet and web-based technologies, computer-based concept maps provide more opportunities such as limitless multimedia and collaborative learning via online knowledge sharing” (Yılmaz and Korur 22). Hence, the online distribution of study material provides wide opportunities to learners. The majority of teachers, amounting to 69%, share audio and video links through email or social media platforms, recognizing the value of multimedia resources for enhancing conceptual clarity. In addition to digital materials, 55% of teachers share paperback materials and reference books, while 48% distribute physical textbooks to their students.

Teachers employ various methods for note-sharing, with 44% creating and distributing notes, 42% dictating notes in class, and 37% sharing notes through email. Furthermore, 28% of teachers use cloud storage and drives to store data, providing students with convenient access to study materials. A smaller percentage, 11%, utilize platforms like WhatsApp for class organization, forming groups where they share a variety of study materials, including audio, videos, website links, and articles.

Notably, a few teachers employ different mediums, such as class organization or college-specific applications, to share study materials. Despite the diversity in approaches, the prevailing trend among teachers is the use of digital platforms for disseminating study materials to their students.

i) Rural and Urban

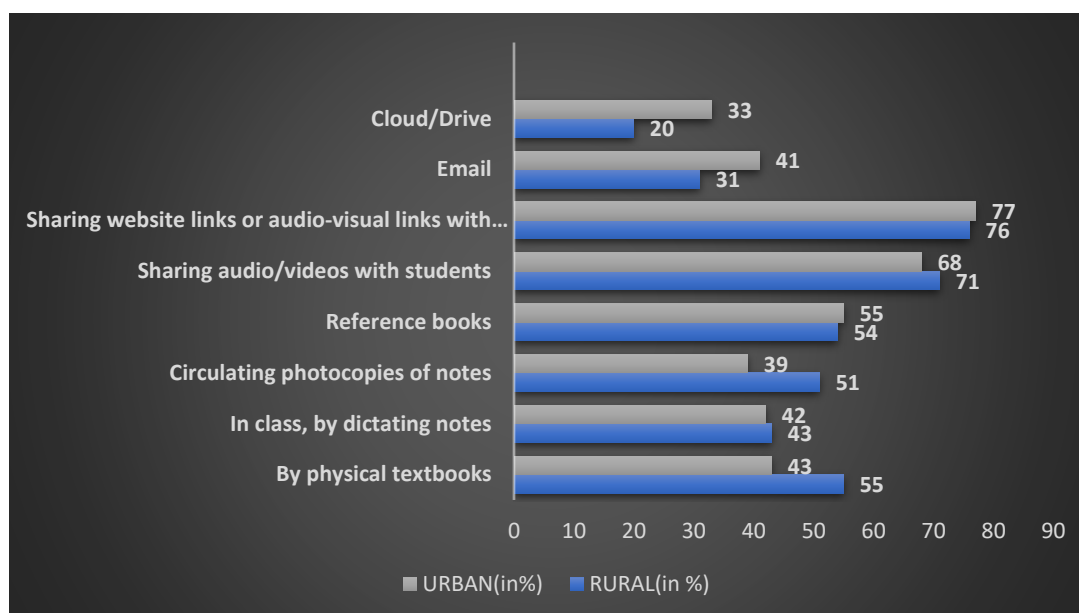


Chart 4.4.5-A: Teaching Learning Resources – Rural and Urban

How do teachers circulate learning resources to students?	Rural (in%)	Urban (in%)
Sharing website links or audio-visual links with students	76	77
Sharing audio/videos with students	71	68
By physical textbooks	55	43
Reference books	54	55
Circulating photocopies of notes	51	39
In class, by dictating notes	43	42
Email	31	41
Cloud/Drive	20	33

Table: 4.4.5-A: Teaching Learning Resources – Rural and Urban

ii) Age Wise Distribution

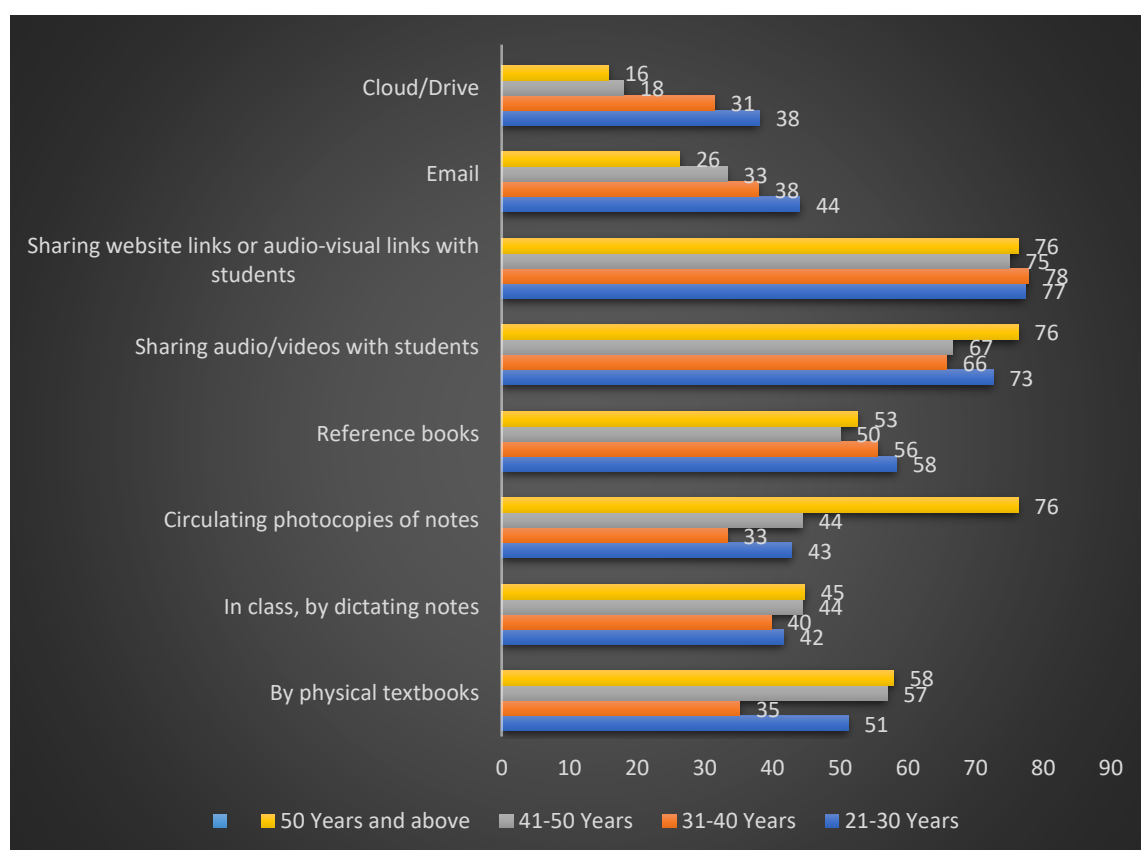


Chart 4.4.5-B: Teaching Learning Resources – Age

How do teachers circulate learning resources to students?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Sharing website links or audio-visual links	77	78	75	76
Sharing audio/videos with students	73	66	67	76
Reference books	58	56	50	53
By physical textbooks	51	35	57	58
Email	44	38	33	26
Circulating photocopies of notes	43	33	44	76
In class, by dictating notes	42	40	44	45
Cloud/Drive	38	31	18	16

Table: 4.4.5-B: Teaching Learning Resources – Age

iii) Experience Wise Distribution

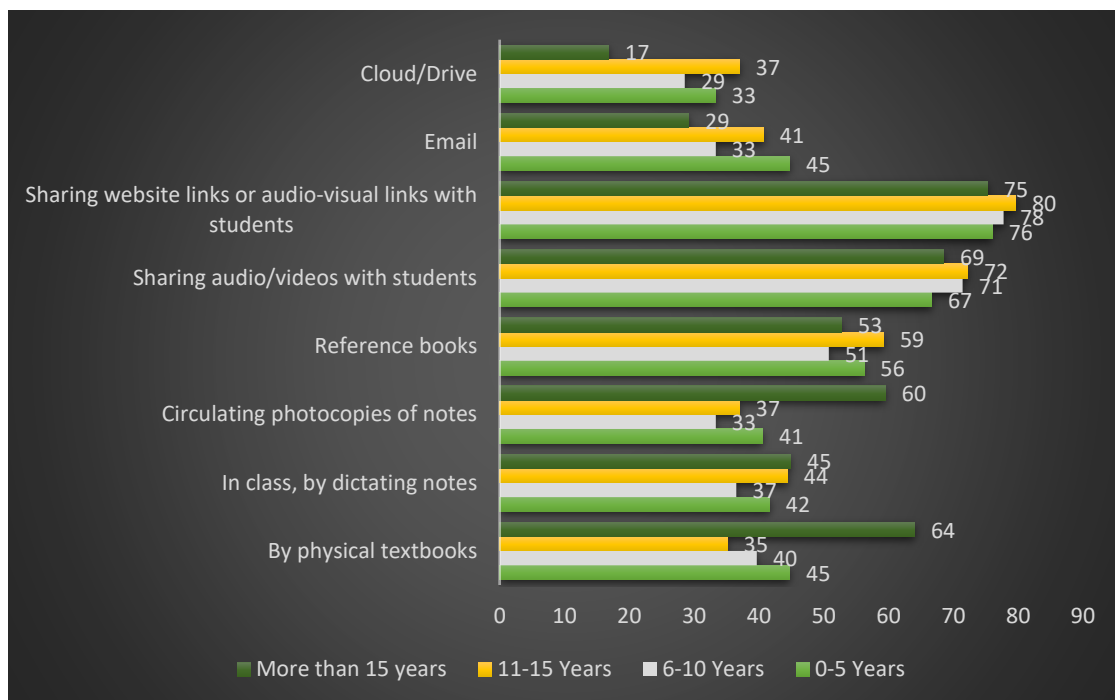


Chart 4.4.5-C: Teaching Learning Resources – Experience

How do teachers circulate learning resources to students?	0-5 Years	6-10 Years	11-15 Years	15 years+
Sharing website links or audio-visual links	76	78	80	75
Sharing audio/videos with students	67	71	72	69
Reference books	56	51	59	53
By physical textbooks	45	40	35	64
Email	45	33	41	29
In class, by dictating notes	42	37	44	45
Circulating photocopies of notes	41	33	37	60
Cloud/Drive	33	29	37	17

Table: 4.4.5-C: Teaching Learning Resources – Experience

The research findings indicate a consistent preference for digital mediums in circulating study materials, with respondents from both rural and urban areas favouring methods such as sharing website links or audio-visual links through social media platforms, class organization platforms, or emails. Notably, the distribution of photocopies of notes is more prevalent in rural areas compared to urban areas. On the other hand, the use of email and Cloud/Drive as mediums for circulating study materials is more common in urban areas.

Similarly, when analysing the data by age and experience, a universal inclination towards digital mediums emerges. Respondents across age groups and levels of teaching experience predominantly opt for digital methods. However, the sharing of study materials through physical textbooks is less frequent among respondents aged 31-40, while it gains prominence among those with 15 years of experience or more. Additionally, respondents aged 51 and above, as well as those with extensive teaching experience, demonstrate a greater preference for circulating photocopies of notes compared to their younger and less experienced counterparts.

4.4.6 Online Digital Libraries

Do tutors and students access online digital libraries?

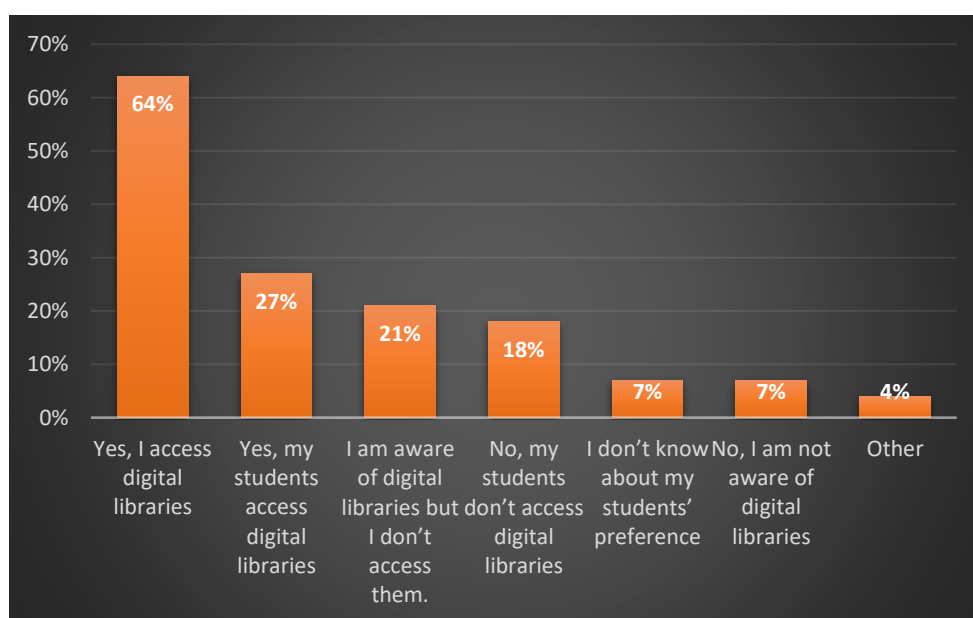


Chart 4.4.6: Online Digital Libraries

Do teachers and students access online digital libraries?	Percentage
Yes, I access digital libraries	64%
Yes, my students access digital libraries	27%
I am aware of digital libraries, but I do not access them	21%
No, my students do not access digital libraries	18%
No, I am not aware of digital libraries	7%
I do not know about my students' preference	7%
Other	4%

Table: 4.4.6: Online Digital Libraries

The advent of digitalization and technology has ushered in advanced teaching and learning methods, particularly transforming traditional libraries into digital ones, “The digital library must be seen as an environment bringing together collections, services, and people to support the full cycle of creation, dissemination, discussion, collaboration, use, new authoring, and preservation of data, information, and knowledge” (UNESCO 07). Unlike physical libraries where book availability is limited, digital libraries offer the convenience of downloading desired books instantly. Various online libraries cater to the needs of Indian learners, providing not only books but also journals, articles, newspapers, and multimedia content.

The research findings reveal that 64% of respondents actively access online libraries, indicating a substantial acceptance of digital resources. However, 21% of respondents are aware of digital libraries but do not utilize them, while 7% are completely unaware of their existence. The questionnaire also sought information about students' preferences, with 27% of respondents stating that their students access digital libraries. In contrast, 18% of respondents indicated that their students do not utilize digital libraries, and 7% have no information about their students' preferences. Additionally, 4% of respondents noted that their students occasionally access digital libraries based on specific requirements.

The data highlights a potential lack of awareness among both teachers and students regarding digital library initiatives. Increased awareness could prove beneficial, saving valuable resources and time for educators and learners alike.

Rural and Urban

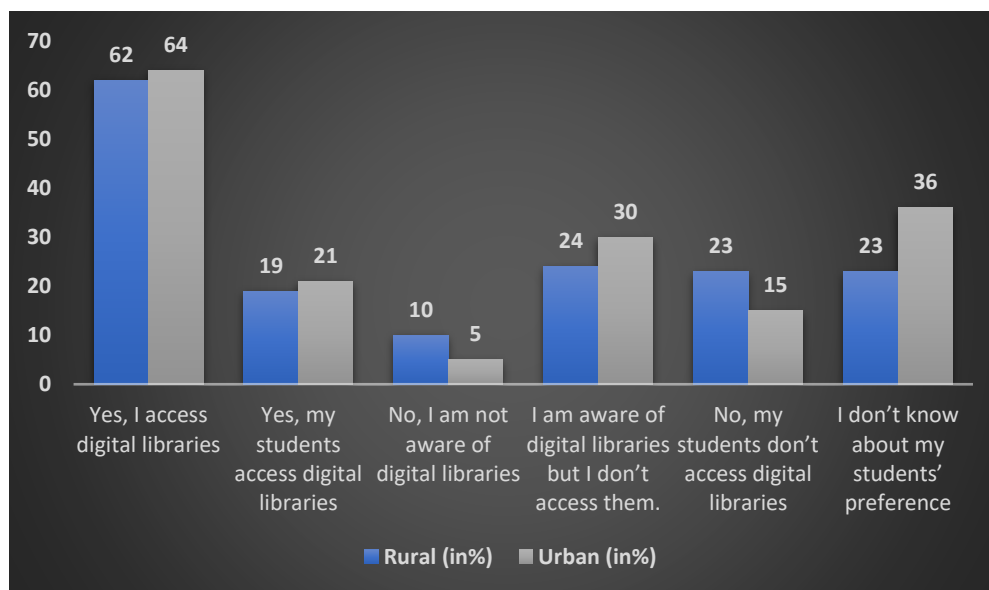


Chart 4.4.6-A: Online Digital Libraries – Rural and Urban

Do teachers and students access online digital libraries?	Rural (in %)	Urban (in %)
Yes, I access digital libraries	62	64
I am aware of digital libraries but do not access them.	24	30
No, my students do not access digital libraries	23	15
I do not know about my students' preference	23	36
Yes, my students access digital libraries	19	21
No, I am not aware of digital libraries	10	5

Table: 4.4.6-A: Online Digital Libraries – Rural and Urban

Age Wise Distribution

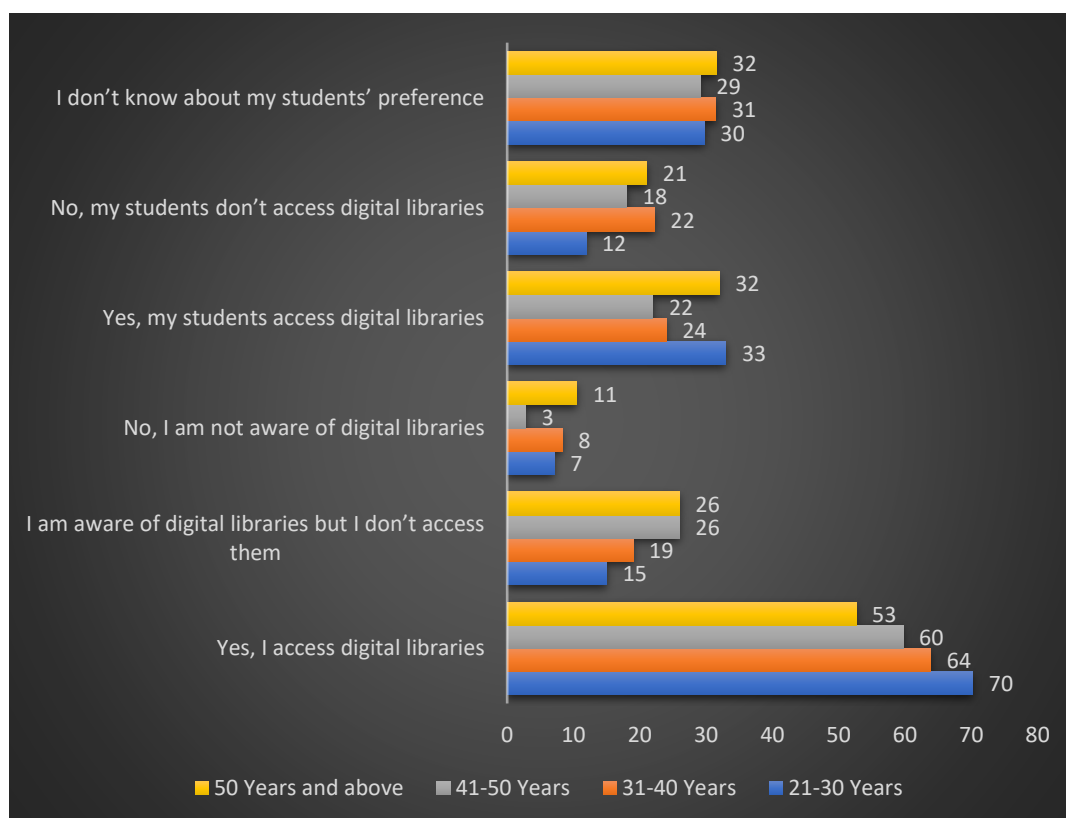


Chart 4.4.6-B: Online Digital Libraries – Age

Do teachers and students access online digital libraries?	21-30 Years	31-40 Years	41-50 Years	50 Years+
Yes, I access digital libraries	70	64	60	53
Yes, my students access digital libraries	33	24	22	32
I do not know about my students' preference	30	31	29	32
I am aware of digital libraries but do not access them	15	19	26	26
No, my students do not access digital libraries	12	22	18	21
No, I am not aware of digital libraries	7	8	3	11

Table: 4.4.6-B: Online Digital Libraries – Age

Experience Wise Distribution

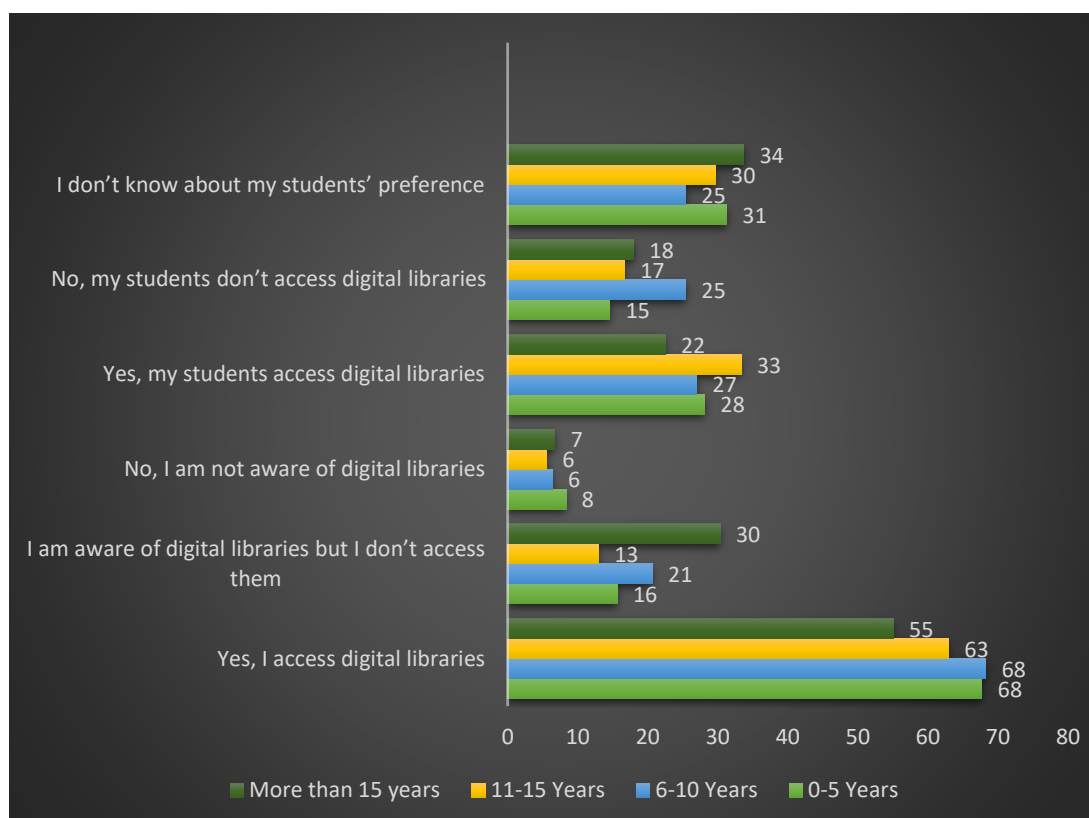


Chart 4.4.6-C: Online Digital Libraries – Experience

Do teachers and students access online digital libraries?	0-5 Years	6-10 Years	11-15 Years	15 years+
Yes, I access digital libraries	68	68	63	55
I do not know about my students' preference	31	25	30	34
Yes, my students access digital libraries	28	27	33	22
I am aware of digital libraries, but I do not access them	16	21	13	30
No, my students do not access digital libraries	15	25	17	18
No, I am not aware of digital libraries	8	6	6	7

Table: 4.4.6-C: Online Digital Libraries – Experience

The pattern of accessing digital libraries by respondents and their students is almost equal but there is little gap between students who do not access digital libraries, 23% of respondents in rural areas and 15% of respondents in urban areas said that their students do not access digital libraries. Whereas 23% of respondents in rural and 36% of respondents in urban areas do not know about their students' preferences. In the age-wise and experience-wise distribution of responses, the pattern of responses is similar. If compare, more respondents who are 50 years and more not know about digital libraries, and respondents who are in the age group of 41-50 years, however, most respondents access digital libraries.

4.4.7 Experience of Online Classes

What is teachers' experience of conducting online classes?

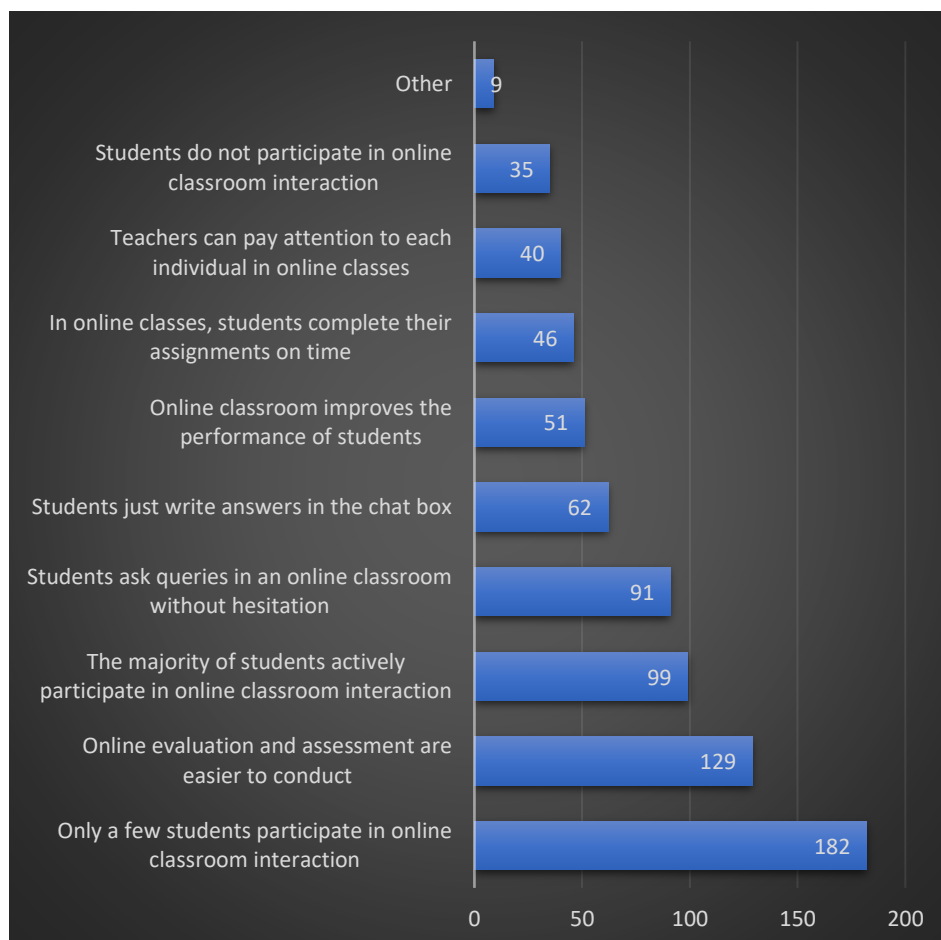


Chart 4.4.7: Experience of Online Classes

Teachers' experience of conducting online classes	Percentage
Only a few students participate in online classroom interaction	60%
Online evaluation and assessment are easier to conduct	43%
Most students actively participate in online classroom interaction	33%
Students ask queries in an online classroom without hesitation	30%
Students just write answers in the chat box.	21%
Online classroom improves the performance of students	17%
In online classes, students complete their assignments on time	15%
Teachers can pay attention to everyone in online classes	13%
Students do not participate in online classroom interaction	12%
Other	3%

Table: 4.4.7: Experience of Online Classes

Online teaching and learning methods are novel and has not been practiced since much longer period, though during the pandemic lockdown, it is the only mode of teaching and learning. Each teacher who has taught English using online mode has different experience. According to 60% of respondents, only a few students participate in online classroom interaction, all students do not pay attention or participate in classroom interaction though 43% of respondents find online evaluation and assessment easier to conduct, as online evaluation do not need manual assessment, and it reduces the probability of mistakes in counting marks. 33% teachers believe that majority of students actively participate in online classes. May the participation of students vary topic to topic. 30% of respondents believe that students ask queries in classroom without hesitation. 21% respondents believe that students just write answers in chat box in online classes. 17% of respondents feel that online classes help in improving students' performance,

the reason could be the wider variety of learning material. 15% respondents believe that in online classes, students complete their assignments on time, the reason could be it saves their traveling time and energy. 13% respondents believe that teachers can pay attention to everyone in online classes. According to 12% respondents, students do not participate in online classroom interaction and 3% teachers have other experiences such as, a greater number of students get distracted in online classes and face to face classes are preferable as presence of teacher in the classroom has an emotional connection with students.

4.4.8 Mobile Phones and Internet Connection

How many of students use mobile phones with internet access for learning of English language?

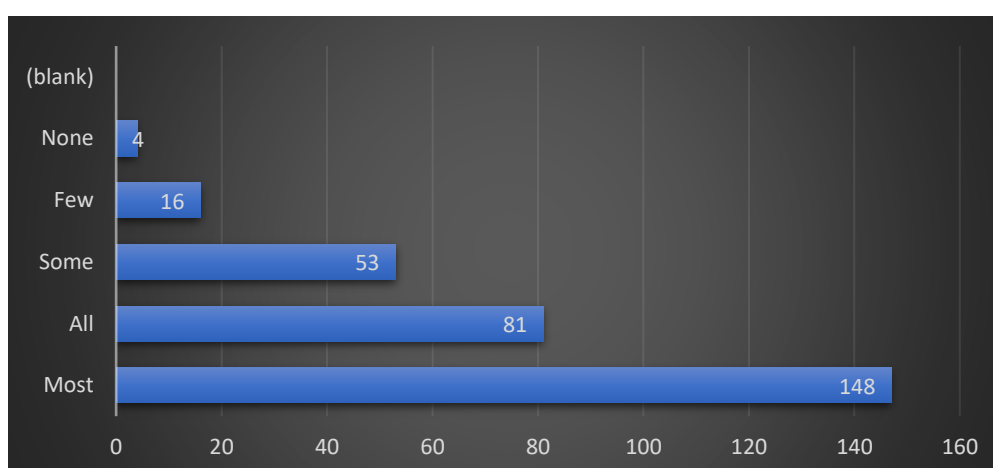


Chart 4.4.8: Mobile Phones and Internet Connection

Teachers' experience of conducting online classes	Count of responses	Percentage
Most	148	49%
All	81	27%
Some	53	18%
Few	16	5%
None	4	1%

Table: 4.4.8: Mobile Phones and Internet Connection

If students prefer mobile phones for learning, internet connection is also required as it is a medium to access the web, according to 49% of respondents, their most of the students use mobile phone with internet connection, 27% of respondents answered that their all students use mobile phones with internet connection, 18% of teachers say that some of their students use mobile phones with internet connection, 5% teachers believe that just few of their students use mobile phones with internet connection and just 1% teachers say that none of their students use mobile phones with internet connection. The research shows that 76% respondents say that majority of students use mobile phone with internet connection, if majority students use mobile with internet connection, it becomes easier for students to access the web for learning of English language while saving the resources.

Rural and Urban

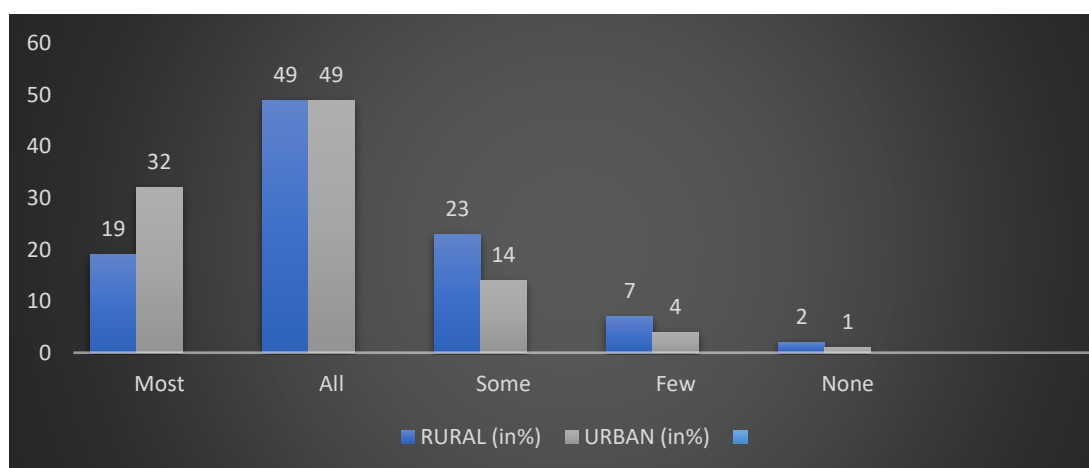


Chart 4.4.8-A: Mobile Phones and Internet Connection – Rural and Urban

Teachers' experience of conducting online classes	Rural (in %)	Urban (in %)
All	49	49
Some	23	14
Most	19	32
Few	7	4
None	2	1

Chart 4.4.8-A: Mobile Phones and Internet Connection – Rural and Urban

In both rural as well as urban areas, according to 49% of respondents, all students use mobile phones with an internet connection. Though 32% of respondents in urban but 19% in rural areas respond that most of the students use mobile phones with internet connection. Just a few very few respondents in both urban and rural areas say that none of their students use mobile phones with internet connections. However, most of the students use mobile phones with an internet connection.

4.4.9 Technical Skills

How do teachers consider themselves to be technically skilled to teach online?

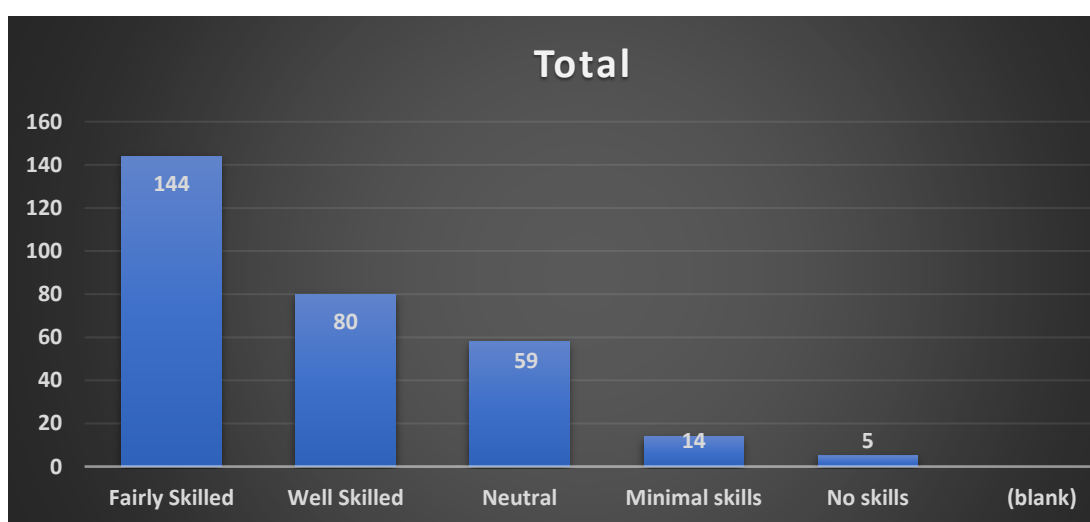


Chart 4.4.9: Technical Skills

Technical skills of teachers	Count of responses	Percentage
Fairly skilled	144	48%
Well skilled	80	26%
Neutral	59	20%
Minimal skills	14	5%
No skills	5	2%

Table: 4.4.9: Technical Skills

26% of teachers claim that they are well-skilled to teach online and 48% are fairly skilled, all teachers are not well-skilled and 27% are lesser than fairly skilled, hence incorporating teachers training for online teaching might help teachers to hone their skill set for teaching as mentioned in NEP 20, teachers need training for online teaching as all teachers who are good at the traditional method of teaching not necessarily are good at the online medium of teaching.

i) Rural and Urban

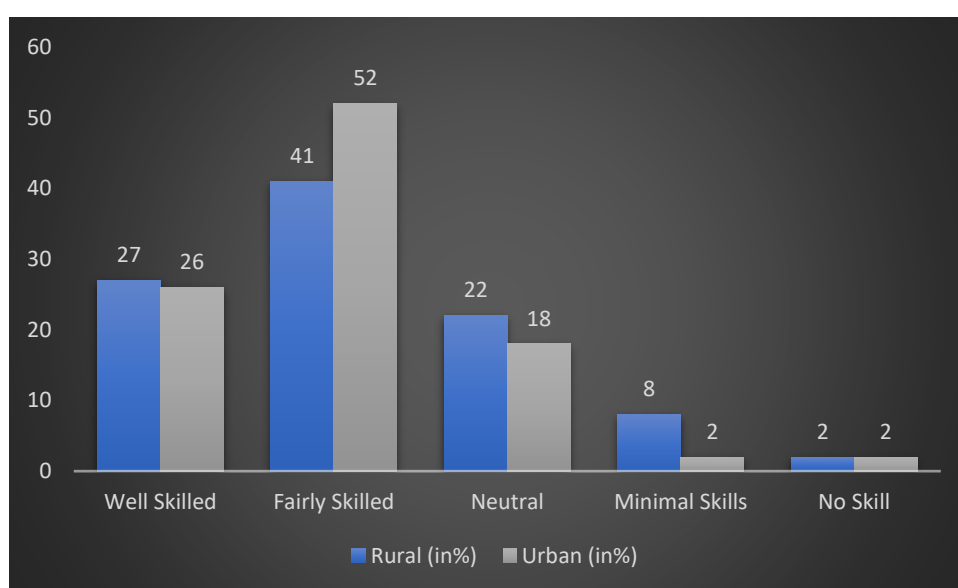


Chart 4.4.9-A: Technical Skills – Rural and Urban

Technical skills of teachers	Rural (in%)	Urban (in%)
Well Skilled	27	26
Fairly Skilled	41	52
Neutral	22	18
Minimal Skills	8	2
No Skill	2	2

Table 4.4.9-A: Technical Skills – Rural and Urban

ii) **Age Wise Distribution**

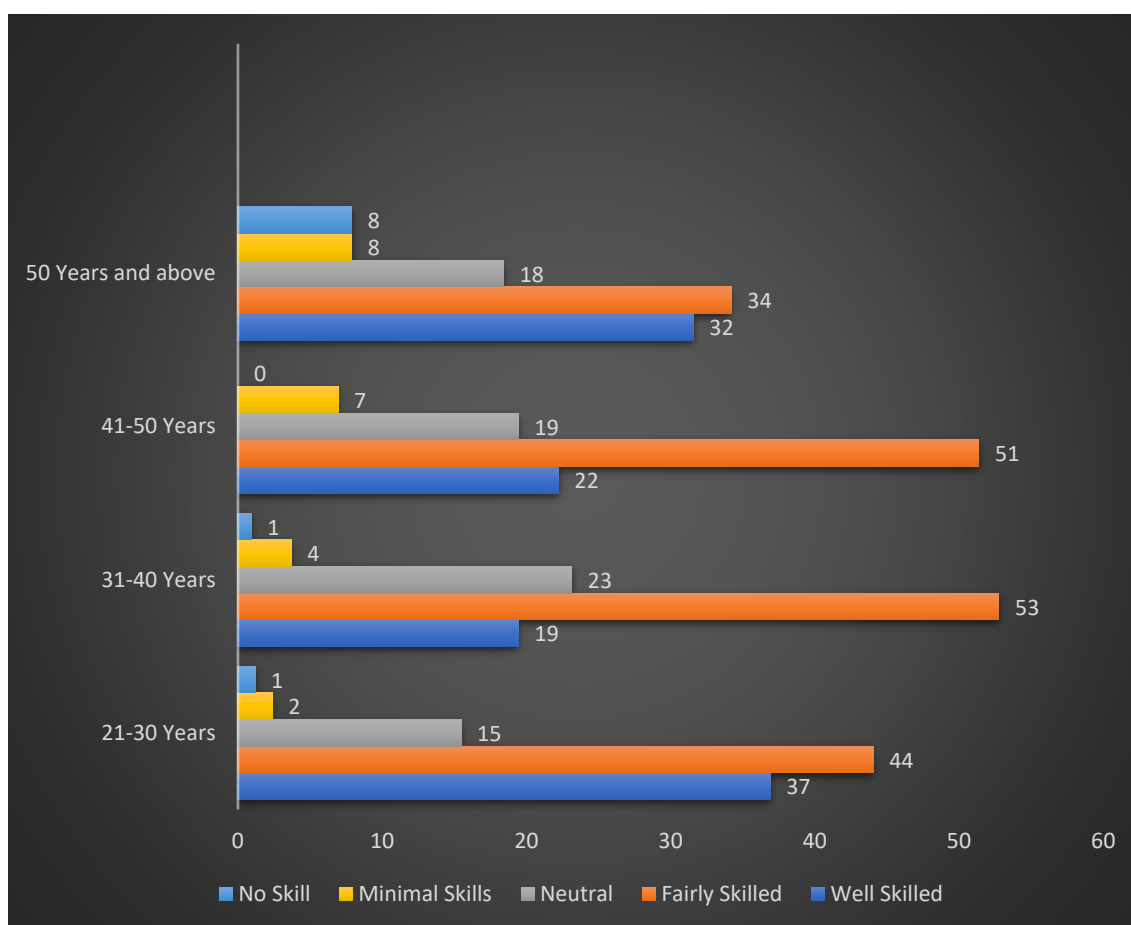


Chart 4.4.9: Technical Skills – Age

Technical skills of teachers	21-30 Years	31-40 Years	41-50 Years	50 Years and above
Well Skilled	37	19	22	32
Fairly Skilled	44	53	51	34
Neutral	15	23	19	18
Minimal Skills	2	4	7	8
No Skill	1	1	0	8

Table 4.4.9-B: Technical Skills – Age

iii) Experience Wise Distribution

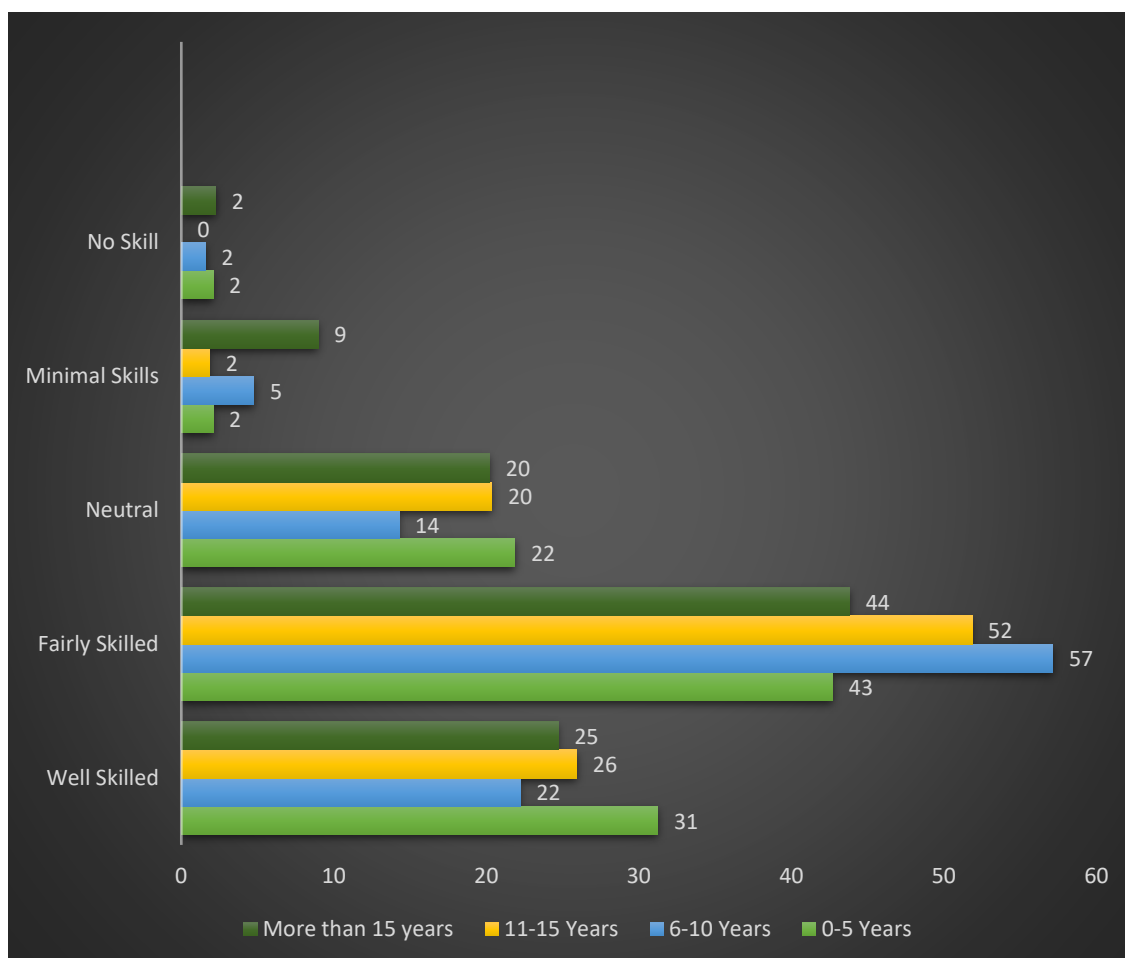


Chart 4.4.9-C: Technical Skills – Experience

Technical skills of teachers	0-5 Years	6-10 Years	11-15 Years	15 years+
Well Skilled	31	22	26	25
Fairly Skilled	43	57	52	44
Neutral	22	14	20	20
Minimal Skills	2	5	2	9
No Skill	2	2	0	2

Table 4.4.9-C: Technical Skills – Experience

According to the findings, respondents from both urban and rural areas do not have any major differences regarding the skills to teach online. More number of respondents claim that they are fairly skilled to teach online. If analyse age-wise or experience-wise, more respondents are fairly skilled and very few respondents have either minimal or no skill at all to teach online. However, most of teachers, irrespective of age, area, or experience, are fairly skilled to teach online.

4.4.10 Challenges

What are the challenges that teachers face in teaching the English language with mobile phones?

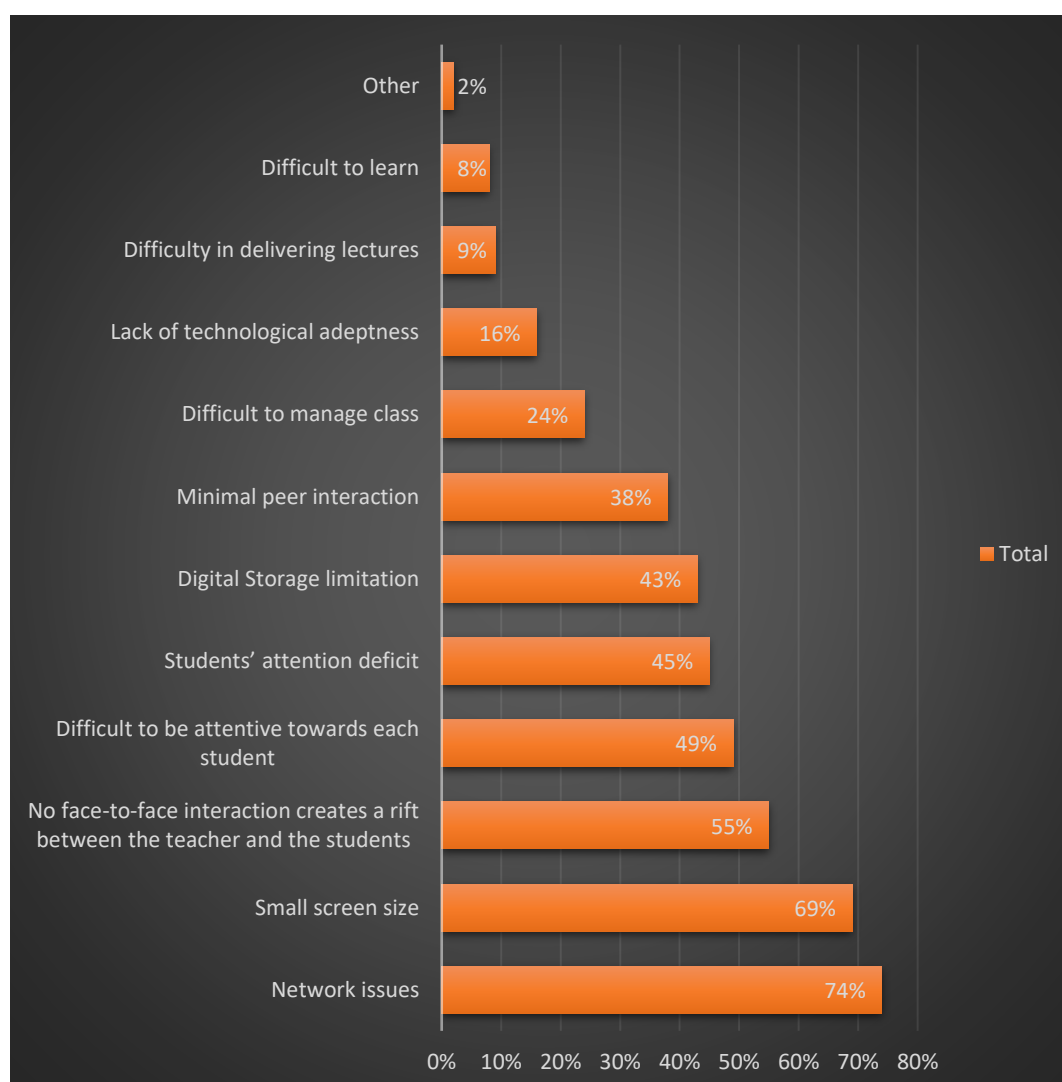


Chart 4.4.10: Challenges

Challenges that teachers face while teaching with mobile phones?	Percentage
Network issues	74%
Small screen size	69%
No face-to-face interaction creates a rift between the teacher and the students	55%
Difficult to be attentive towards each student	49%
Students' attention deficit	45%
Digital Storage limitation	43%
Minimal peer interaction	38%
Difficult to manage class	24%
Lack of technological adeptness	16%
Difficulty in delivering lectures	09%
Difficult to learn	8%
Other	2%

Table 4.4.10: Challenges

Every teaching method comes with its set of advantages and challenges. In the context of online teaching, teachers encounter several challenges that impact the effectiveness of the educational process. The primary concern highlighted by 74% of respondents is network issues. In areas with poor or no network connectivity, teaching online becomes disrupted, affecting the flow of instruction.

The portable size of mobile phones, while convenient for mobility, presents a challenge due to the small screen size, as mentioned by 69% of respondents. This limitation can impede effective teaching and learning experiences. Additionally, 55% of respondents express concerns about the lack of face-to-face interaction, emphasizing the importance of personal connection in the teaching-learning dynamic.

Further challenges identified include the difficulty of maintaining teacher attentiveness toward each student (49%), the potential for students to become easily distracted by technology (45%), limited storage space for files (43%), and minimal peer interaction in mobile learning (43%). Managing online classes through mobile phones poses a challenge for 25% of respondents.

Digital adeptness is deemed essential for effective online teaching, and 16% of respondents find it challenging. Some respondents (9%) face difficulty in delivering lectures through mobile phones, while 8% find challenges in the process of learning through mobile phones and online classes.

Notably, 2% of teachers cite other challenges, with one respondent highlighting the economic constraints of students in a rural area who cannot afford mobile phones or internet connections. This underscores the digital divide and the need for equitable access to technology in education.

i) Rural and Urban

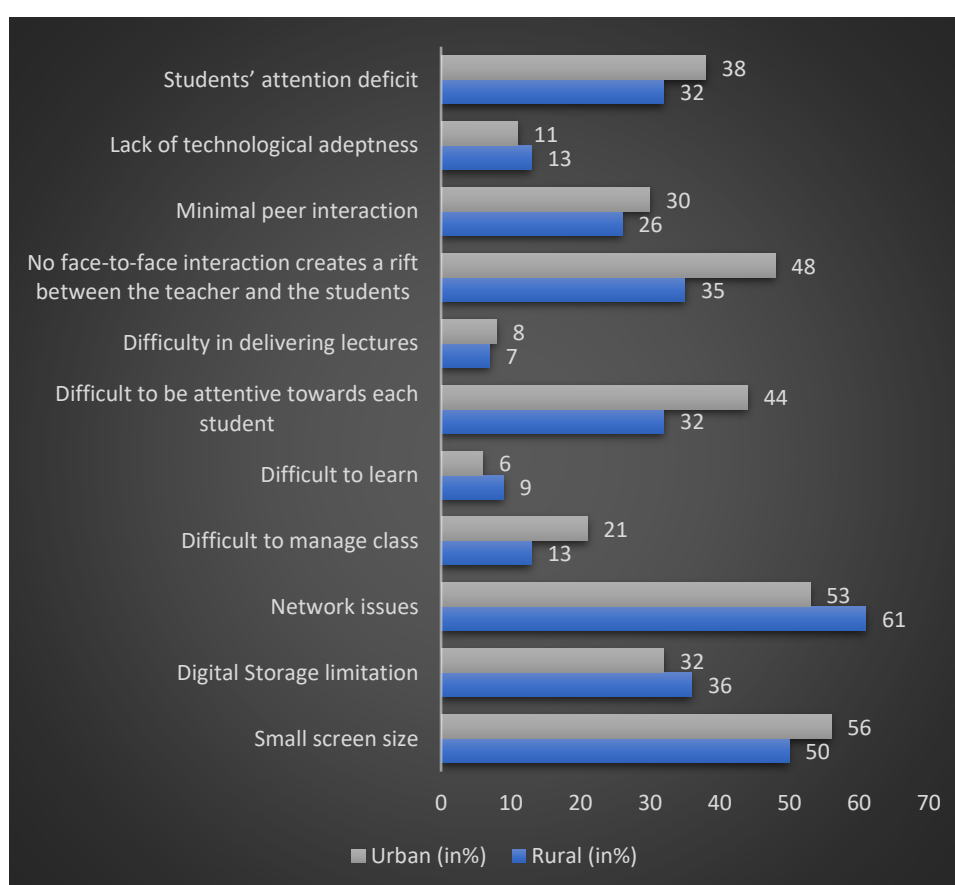


Chart 4.4.10-A: Challenges – Rural and Urban

Challenges that teachers face while teaching with mobile phones?	Rural (in%)	Urban (in%)
Network issues	61	53
Small screen size	50	56
Digital Storage limitation	36	32
No face-to-face interaction creates a rift between the teacher and the students	35	48
Difficult to be attentive towards each student	32	44
Students' attention deficit	32	38
Minimal peer interaction	26	30
Difficult to manage class	13	21
Lack of technological adeptness	13	11
Difficult to learn	9	6
Difficulty in delivering lectures	7	8

Table 4.4.10-A: Challenges – Rural and Urban

ii) Age Wise Distribution

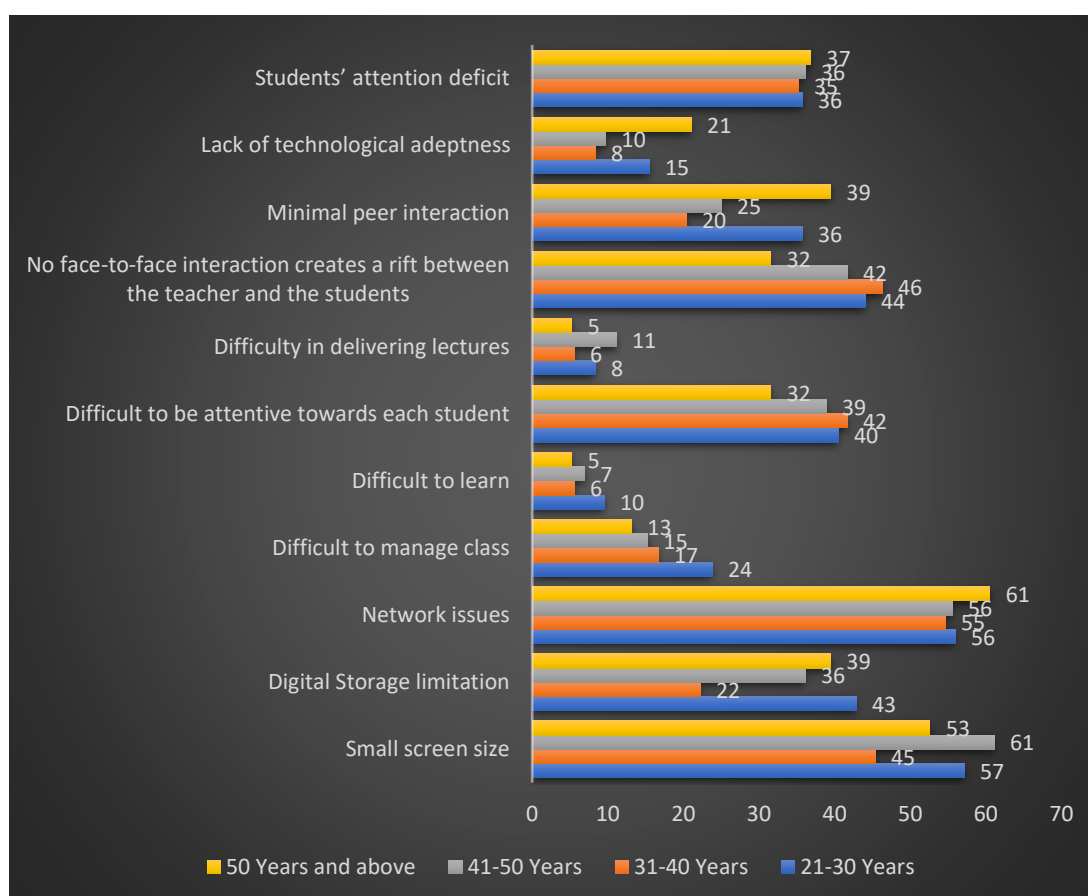


Chart 4.4.10-B: Challenges – Age

Challenges that teachers face while teaching with mobile phones?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Small screen size	57	45	61	53
Network issues	56	55	56	61
No face-to-face interaction creates a rift between the teacher and the students	44	46	42	32
Digital Storage limitation	43	22	36	39
Difficult to be attentive towards each student	40	42	39	32
Minimal peer interaction	36	20	25	39
Students' attention deficit	36	35	36	37
Difficult to manage class	24	17	15	13
Lack of technological adeptness	15	8	10	21
Difficult to learn	10	6	7	5
Difficulty in delivering lectures	8	6	11	5

Table 4.4.10-B: Challenges – Age

iii) **Experience Wise Distribution:**

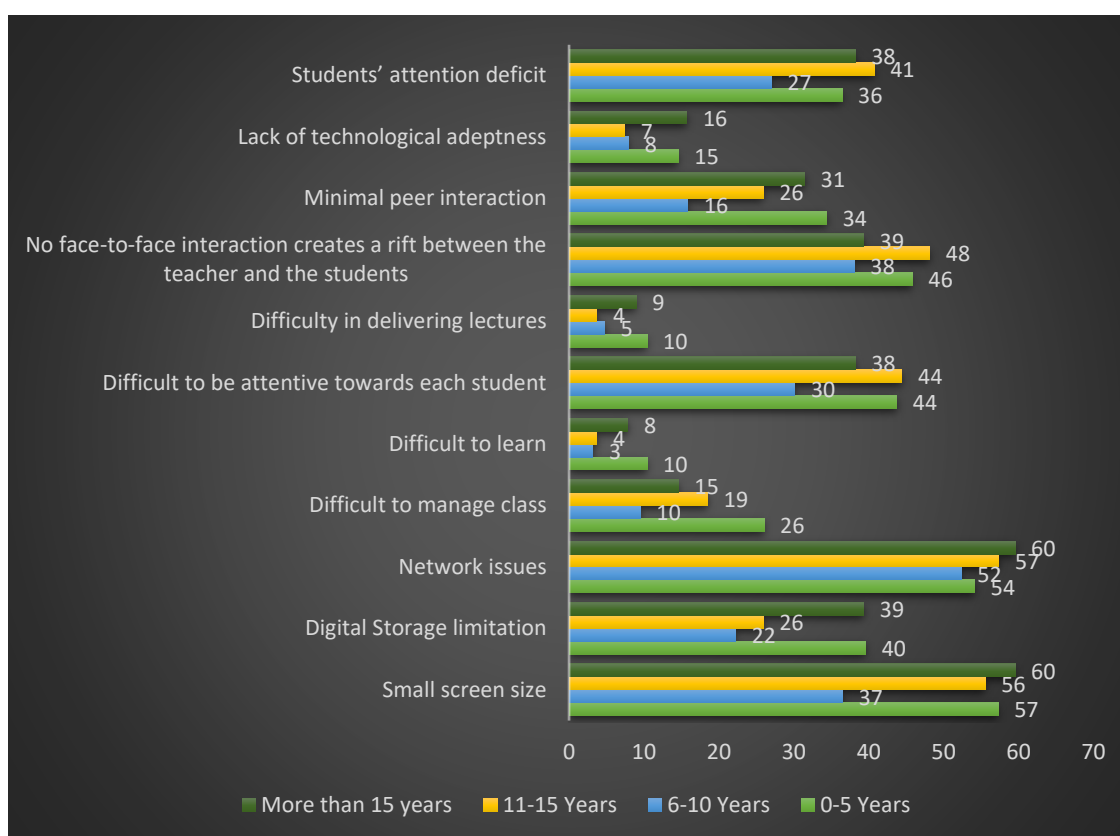


Chart 4.4.10-C: Challenges – Experience

Challenges that teachers face while teaching with mobile phones?	0-5 Years	6-10 Years	11-15 Years	15 years+
Small screen size	57	37	56	60
Network issues	54	52	57	60
Difficult to be attentive towards each student	44	30	44	38
Digital Storage limitation	40	22	26	39
Difficult to manage class	26	10	19	15
Difficult to learn	10	3	4	8
Difficulty in delivering lectures	10	5	4	9
No face-to-face interaction creates a rift between the teacher and the students	4	38	48	39
Minimal peer interaction	34	16	26	31
Lack of technological adeptness	15	8	7	16
Students' attention deficit	36	27	41	38

Table 4.4.10-C: Challenges – Experience

Network issue is a big concern while teaching and learning online and is reported as a major challenge by the respondents of rural areas whereas the small screen size is a major challenge for the respondents of urban areas. For respondents from urban areas, no face-to-face interaction between teachers and students and difficulty to be attentive towards each student is more challenging than for respondents in rural areas. Neither many respondents from urban nor rural find it difficult to learn or to deliver lectures through mobile phones.

Network issues and small screen sizes are the major challenges for respondents of all age groups and experiences. Though, learning and delivering lectures through mobile phones is not much more challenging for the respondents, however, teaching and learning of English language through mobile phones is possible just network issues can cause barriers at times.

4.5 The Role of Covid-19 in Ubiquitous English Language Learning

The perception of mobile learning and ubiquitous learning underwent a transformation during the Covid-19 lockdown, where mobile phones and online learning played a crucial role in facilitating education when traditional schools and colleges were closed. The impact of Covid-19 in promoting mobile learning was substantial, leading to the inclusion of a dedicated section with a total of seven questions in the questionnaire.

4.5.1 Digital Devices Before Covid-19 Lockdown

Digital devices that teachers were using for the teaching of the English language before the Covid-19 lockdown in March 2020.

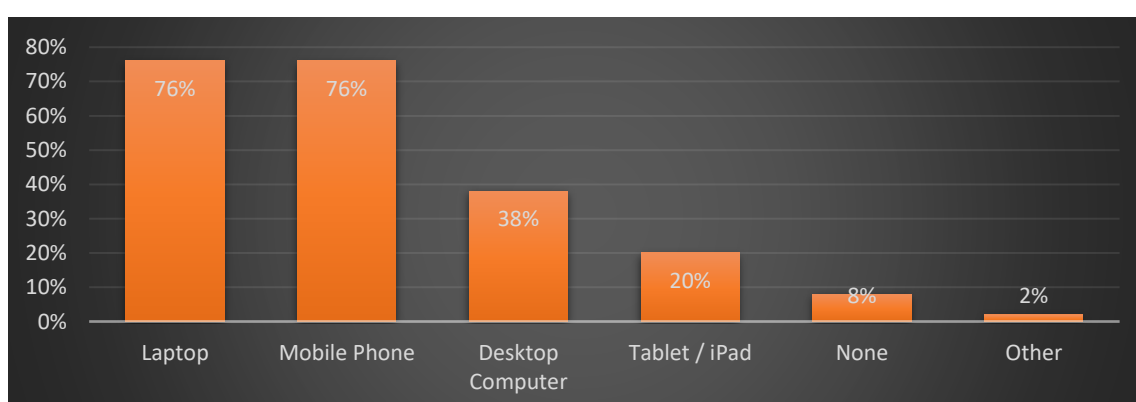


Chart 4.5.1: Digital devices used before Covid-19

Digital devices teachers were using before the Covid-19 lockdown.	Percentage
Laptop	76%
Mobile Phone	76%
Desktop Computer	38%
Tablet/i-Pad	20%
None	8%
Other	2%

Table 4.5.1: Digital devices used before Covid-19 Lockdown

Before the onset of the Covid-19 lockdown, online teaching was not widely prevalent. The landscape changed drastically when the pandemic struck, and the subsequent lockdown was announced. Prior to the lockdown, most respondents primarily utilized mobile phones and laptops, followed by desktop computers and tablets/iPads. Notably, about 8% of respondents did not use any digital devices before the Covid-19 pandemic.

i) Rural and Urban

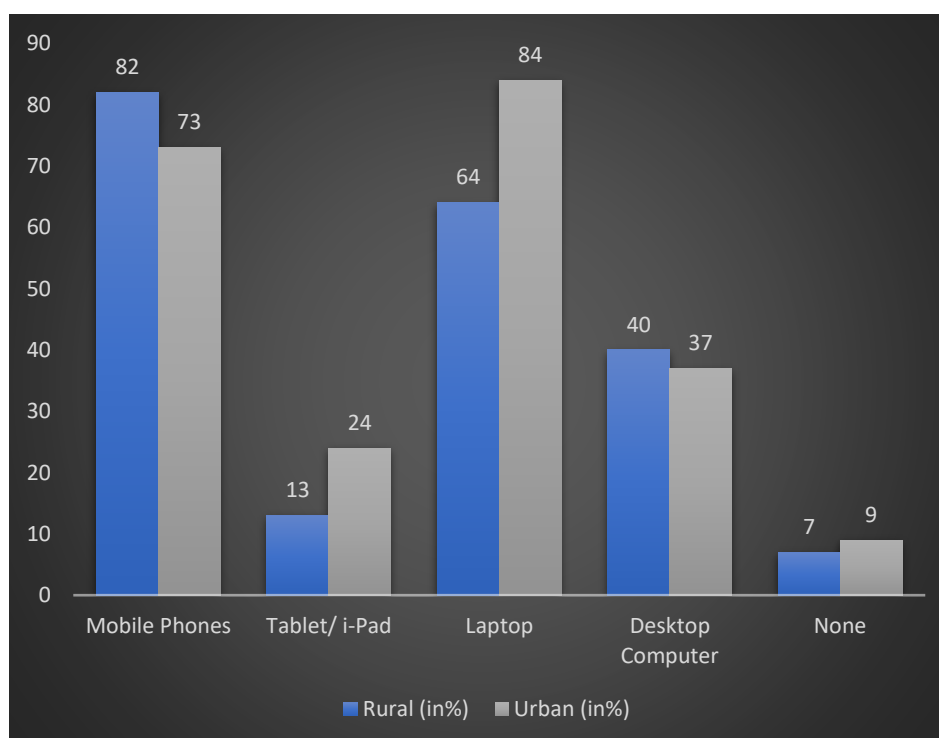


Chart 4.5.1-A: Digital devices used before Covid-19 – Rural and Urban

Digital devices teachers were using before the Covid-19 lockdown.	Rural (in%)	Urban (in%)
Mobile Phones	82	73
Laptop	64	84
Desktop Computer	40	37
Tablet/ i-Pad	13	24
None	7	9

Table 4.5.1-A: Digital devices used before Covid-19 – Rural and Urban

ii) Age Wise Distribution

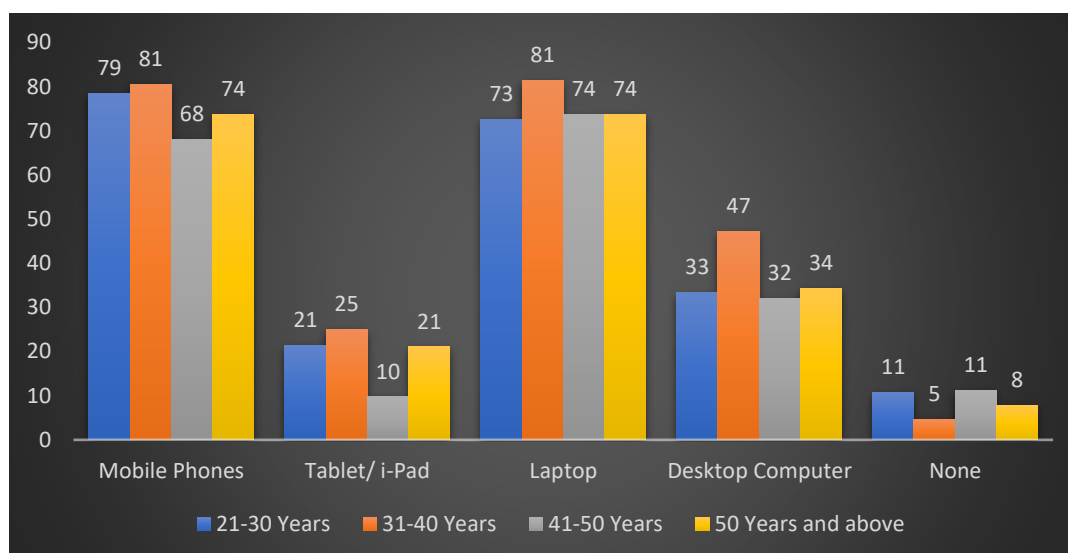


Chart 4.5.1-B: Digital devices used before Covid-19 – Age Wise Distribution

Digital devices teachers were using before the Covid-19 lockdown.	21-30 Years	31-40 Years	41-50 Years	50 Years+
Mobile Phones	79	81	68	74
Laptop	73	81	74	74
Desktop Computer	33	47	32	34
Tablet/ i-Pad	21	25	10	21
None	11	5	11	8

Table 4.5.1-B: Digital devices used before Covid-19 - Age Wise Distribution

iii) Experience Wise Distribution

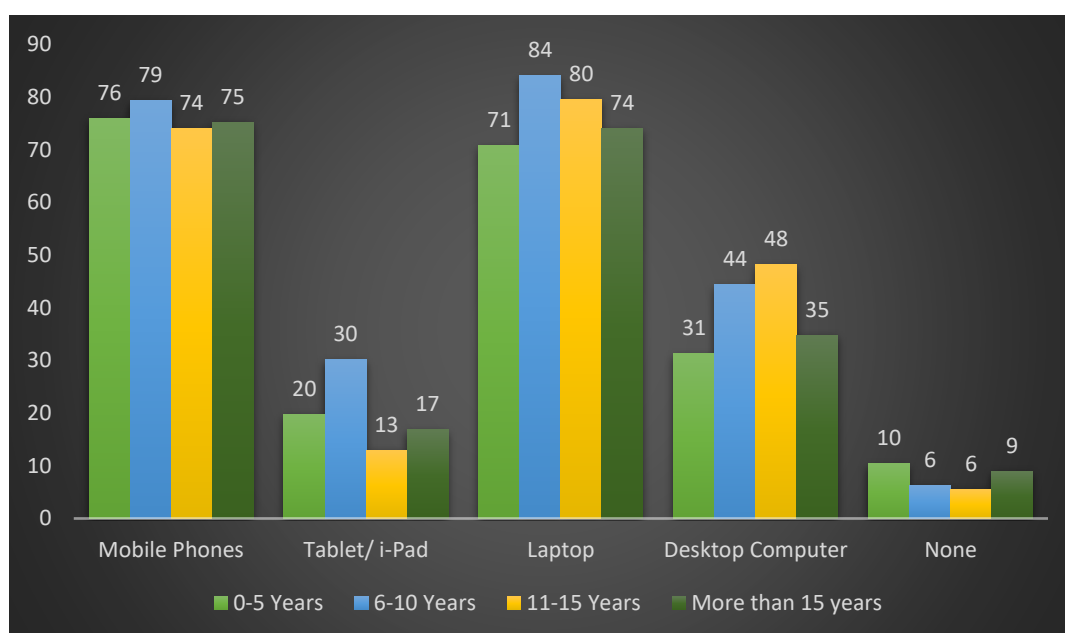


Chart 4.5.1-C: Digital devices used before Covid-19 – Experience Wise Distribution

Digital devices teachers were using before the Covid-19 lockdown.	0-5 Years	6-10 Years	11-15 Years	15 Years+
Mobile Phones	76	79	74	75
Laptop	71	84	80	74
Desktop Computer	31	44	48	35
Tablet/ i-Pad	20	30	13	17
None	10	6	6	9

Table 4.5.1-C: Digital devices used before Covid-19 lockdown – Experience.

Before Covid-19, the use of mobile phones for teaching the English language was more prevalent in rural areas, while laptops were more commonly used in urban areas. Desktop computers were nearly equally utilized in both urban and rural areas, and tablets and iPads were the least favoured devices. A small percentage, 7% in rural areas and 9% in urban areas, did not use any digital devices before Covid-19.

When examining age-wise preferences, mobile phones were more common among younger respondents, while the age groups of 31-40 years and 51 years and older demonstrated an equal preference for both mobile phones and laptops. Respondents aged 50-59 years favoured laptops over mobile phones. In terms of experience-wise distribution, the least and most experienced groups preferred mobile phones over laptops, and those with 6-15 years of experience leaned towards laptops. However, there was not a significant gap in the number of responses for the usage of laptops and mobile phones. Desktop computers were the preferred choice after laptops and mobile phones across all age and experience groups, followed by tablets or iPads. The fewest number of respondents did not use any digital devices for teaching and learning the English language before Covid-19.

4.5.2 Digital Devices During Covid-19

Digital devices teachers have used for English language teaching during the Covid-19 lockdown when Educational Institutes /Universities /Colleges were closed.

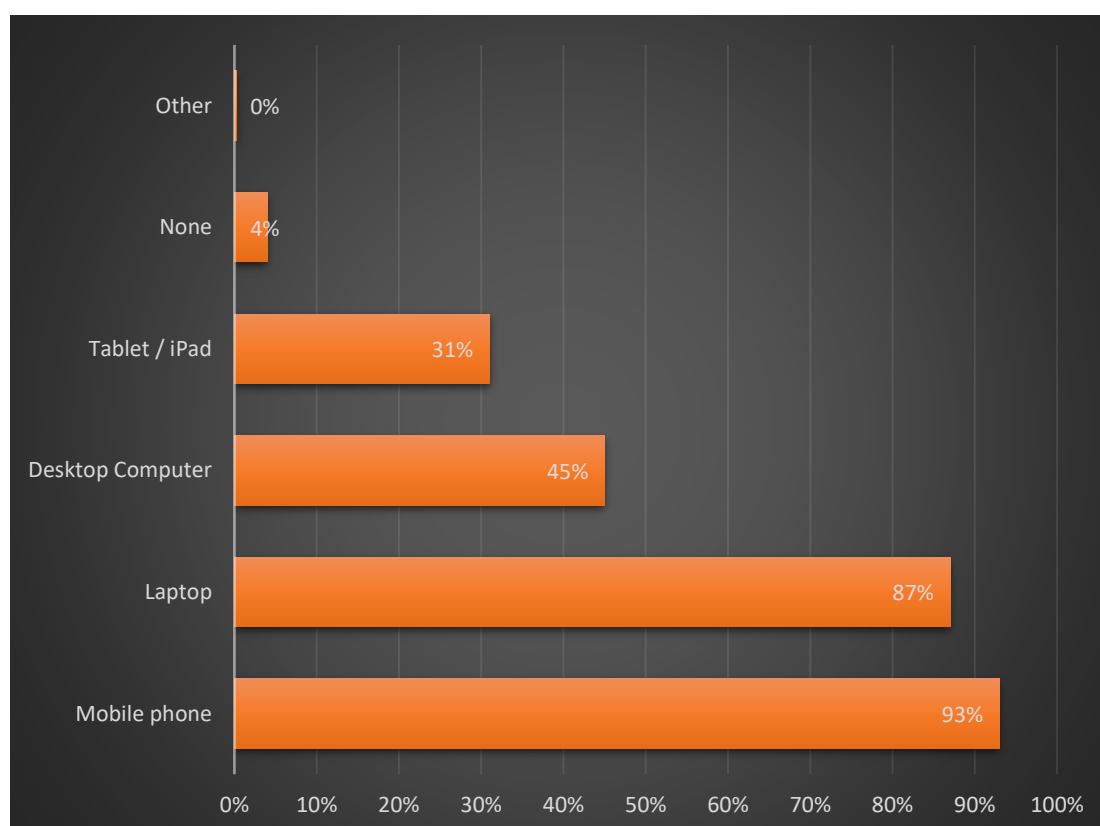


Chart 4.5.2 Digital devices used during Covid-19 lockdown.

Digital devices that teachers have used during Covid-19 lockdown	Percentage
Mobile Phone	93%
Laptop	87%
Desktop Computer	45%
Tablet/i-Pad	31%
None	4%
Other	0%

Table 4.5.2 – Digital devices used during Covid-19 lockdown.

Significant changes occurred when the country implemented the lockdown, pushing the entire education sector to rely solely on online modes. During the Covid-19 lockdown, when educational institutions were closed, digital devices for educational purposes saw a notable surge in usage. For English language learning during this period, the mobile phone emerged as the most widely used device, given its widespread availability. A striking 93% of respondents utilized mobile devices during the lockdown, making them the primary choice for English language learning. Following closely, laptops were employed by 87% of respondents for online teaching purposes. This underscores the potential of mobile phones to effectively facilitate online classes for English language learning.

i) Rural and Urban

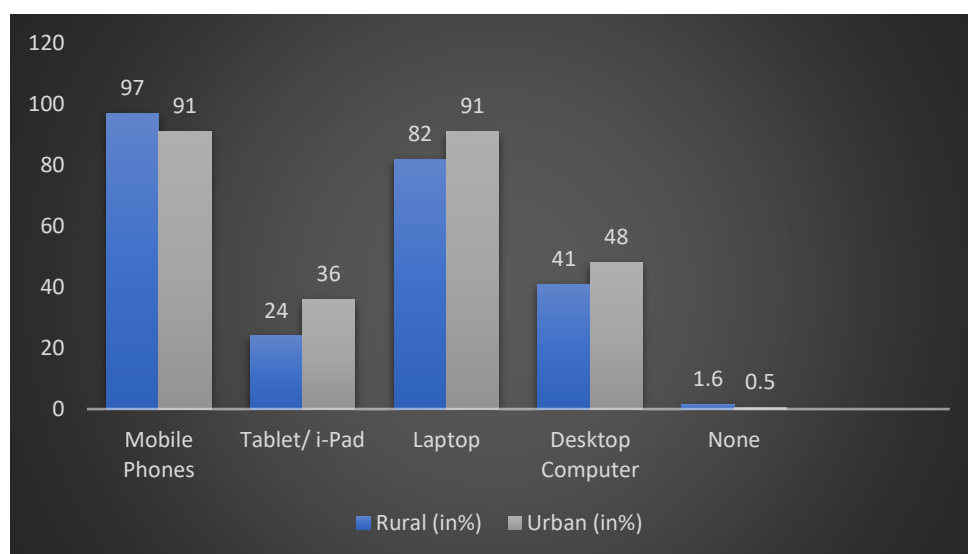


Chart 4.5.2-A: Digital devices used during Covid-19 lockdown – Rural and Urban

Digital devices that teachers have used during Covid-19 lockdown	Rural (in%)	Urban (in%)
Mobile Phones	97	91
Laptop	82	91
Desktop Computer	41	48
Tablet/ i-Pad	24	36
None	1.6	0.5

Table 4.5.2-A: Digital devices used during Covid-19 lockdown – Rural and Urban

ii) Age Wise Distribution

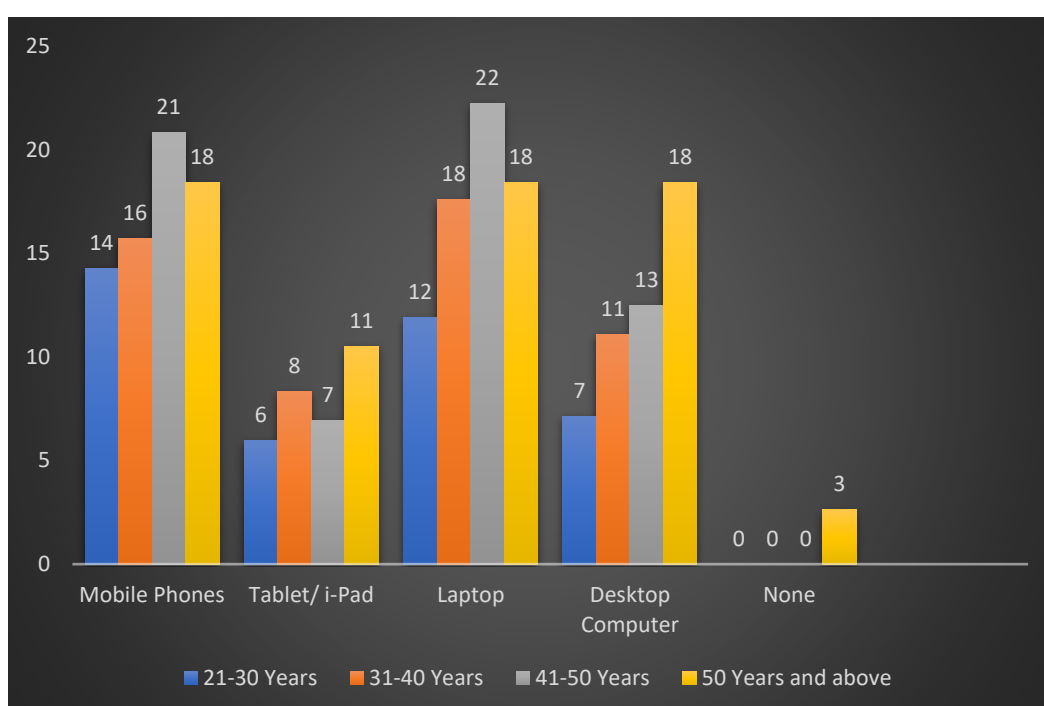


Chart 4.5.2-B: Digital devices used during Covid-19 lockdown– Age

Digital devices that teachers have used during Covid-19 lockdown	21-30 Years	31-40 Years	41-50 Years	50 Years +
Mobile Phones	14	16	21	18
Laptop	12	18	22	18
Desktop Computer	7	11	13	18
Tablet/ i-Pad	6	8	7	11
None	0	0	0	3

Table 4.5.2-B: Digital devices used during Covid-19 lockdown – Age

iii) Experience Wise Distribution

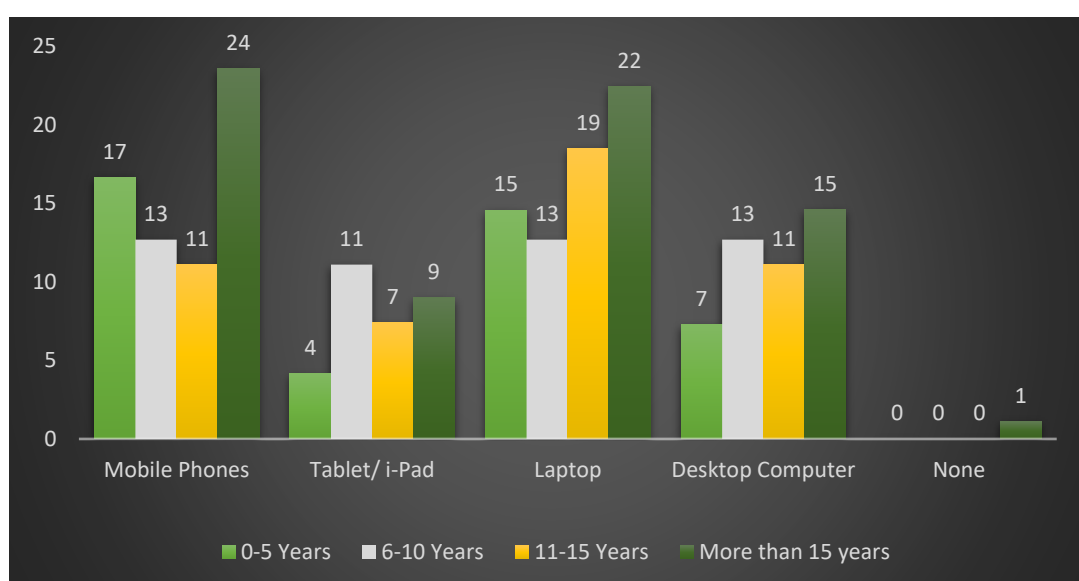


Chart 4.5.2-C: Digital devices used during Covid-19 – Experience

Digital devices that teachers have used during Covid-19 lockdown	0-5 Years	6-10 Years	11-15 Years	15 years+
Mobile Phones	17	13	11	24
Tablet/ i-Pad	4	11	7	9
Laptop	15	13	19	22
Desktop Computer	7	13	11	15
None	0	0	0	1

Table 4.5.2-C: Digital devices used during Covid-19 – Experience

During the Covid-19 lockdown, the reliance on online modes, digital devices, and digital media platforms became the lifeline of education. According to the findings, in rural areas, the most favoured device was mobile phones, followed by laptops, while in urban areas, laptops and mobile phones were equally preferred. After mobile phones and laptops, computers and tablets were the next preferred devices. Comparing age-wise and experience-wise data reveals a consistent pattern as observed before Covid-19. Mobile and laptop usage remained nearly identical across all age and experience groups. However, a notable shift occurred in the reduced number of respondents who were not using digital devices before the Covid-19 lockdown, indicating an increased adoption of digital tools during the lockdown period.

4.5.3 Digital Devices After Covid-19 Lockdown

Digital devices that teachers use for English language teaching post Covid-19 lockdown after the opening of Educational Institutes / Universities / Colleges.

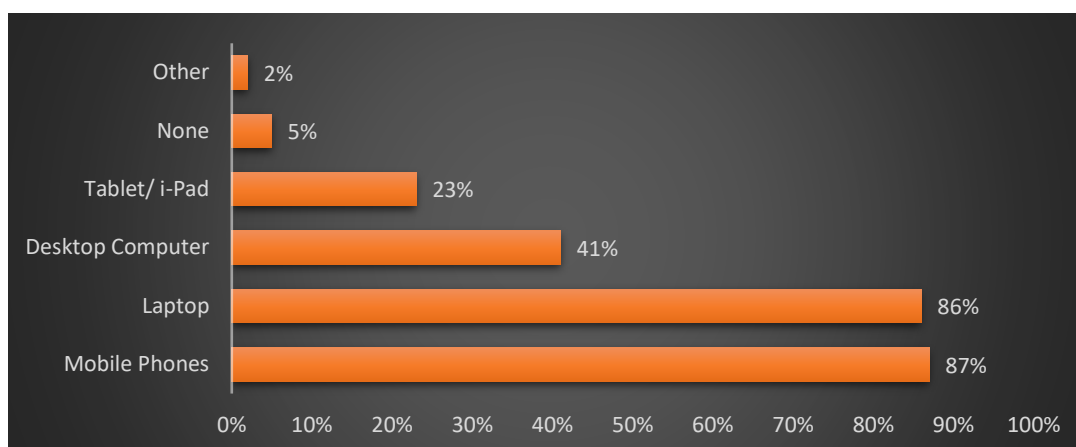


Chart 4.5.3 Digital devices used after Covid-19

Digital devices that teachers use post Covid-19 lockdown	Percentage
Mobile Phone	87%
Laptop	86%
Tablet/i-Pad	23%
Desktop Computer	41%
None	5%
Other	2%

Table 4.5.3 – Digital devices used after Covid-19

Following the reopening of schools and the return to face-to-face learning, a natural expectation would be a decrease in the overall reliance on digital devices for teaching and learning. Despite this transition, the mobile phone retained its status as the most utilized device. This persistence suggests that both teachers and learners had become accustomed to and comfortable with mobile phone-based learning, finding it to be an effective and convenient option. As a result, even after the schools reopened, the mobile phone continued to be the predominant digital device for educational purposes.

i). Rural and Urban

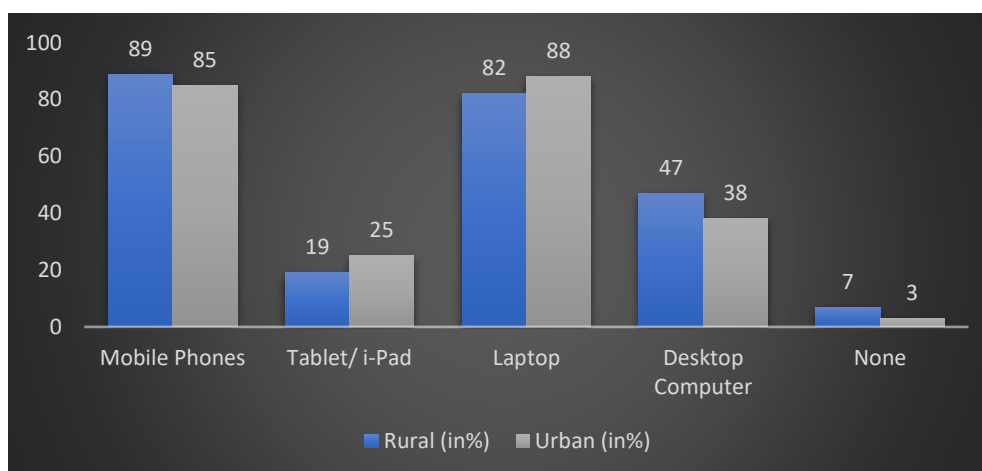


Chart 4.5.3-A Digital devices used after Covid-19 – Rural and Urban

Digital devices that teachers use post Covid-19 lockdown	Rural (in%)	Urban (in%)
Mobile Phones	89	85
Laptop	82	88
Desktop Computer	47	38
Tablet/ i-Pad	19	25
None	7	3

Table 4.5.3-A – Digital devices used after Covid-19 – Rural and Urban

ii). Age Wise Distribution

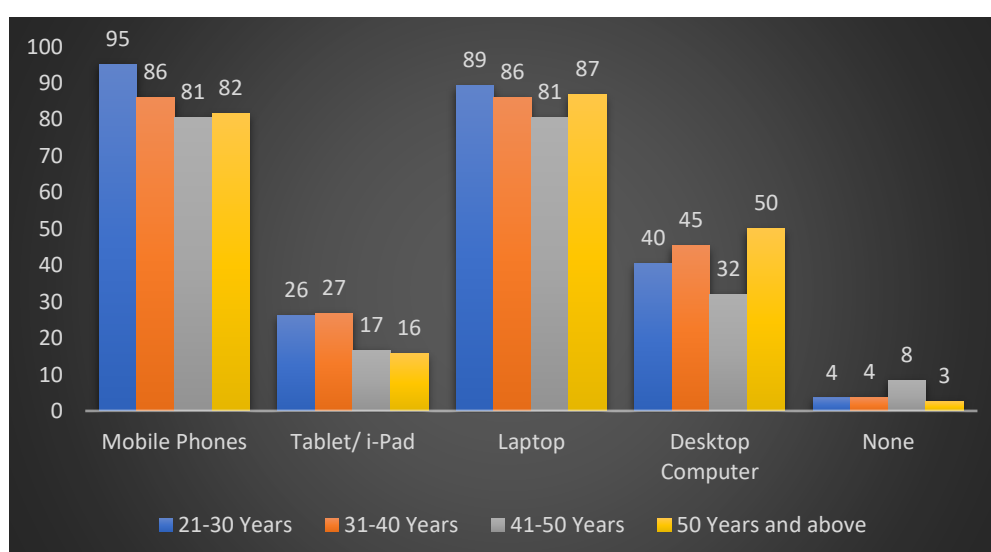


Chart 4.5.3.-B Digital devices used after Covid-19 – Age

Digital devices that teachers use post Covid-19 lockdown	21-30 Years	31-40 Years	41-50 Years	50 Years +
Mobile Phones	95	86	81	82
Tablet/ i-Pad	26	27	17	16
Laptop	89	86	81	87
Desktop Computer	40	45	32	50
None	4	4	8	3

Table 4.5.3-B – Digital devices used after Covid-19 – Age Wise Distribution

iii). Experience Wise Distribution

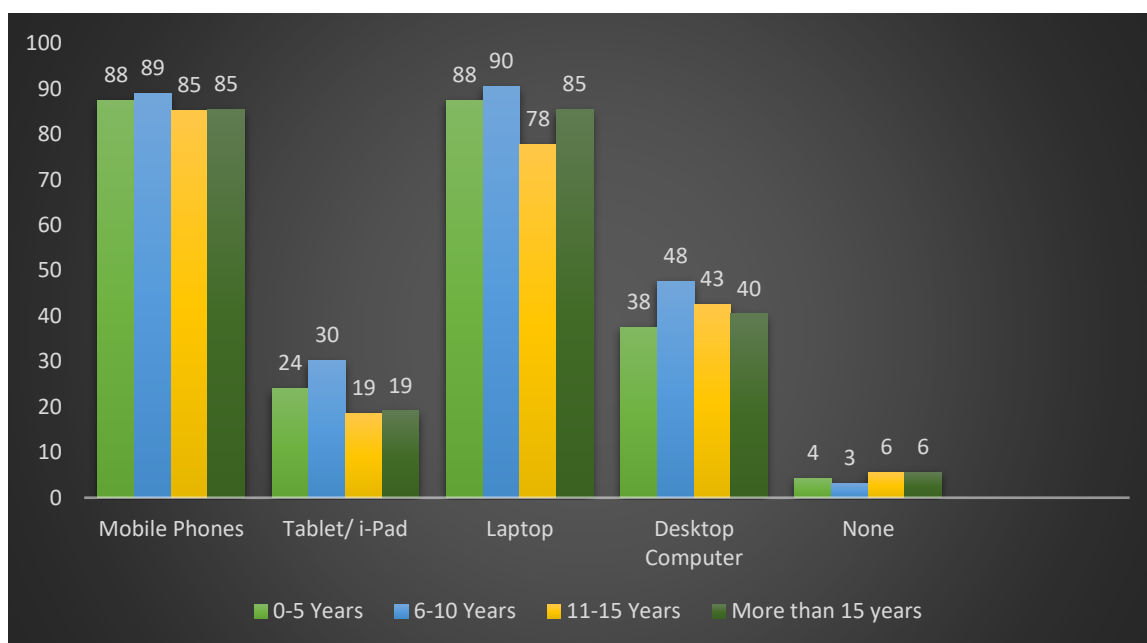


Chart 4.5.3-C Digital devices used after Covid-19 – Experience Wise Distribution

Digital devices that teachers use post Covid-19 lockdown	0-5 Years	6-10 Years	11-15 Years
Mobile Phones	88	89	85
Tablet/ i-Pad	24	30	19
Laptop	88	90	78
Desktop Computer	38	48	43
None	4	3	6

Table 4.5.3-C Digital devices used after Covid-19 – Experience Wise Distribution

Following the reopening of schools post the Covid-19 lockdown, there was a reduction in the number of online classes as face-to-face instruction resumed. Despite this shift, the teaching patterns in both rural and urban areas, across various age groups and experience levels, remained similar. Laptops and mobile phones continued to be the most frequently used devices for educational purposes.

Interestingly, a noteworthy trend emerged, indicating an increase in the number of users who opted not to use any digital devices. This increase, however, was observed in comparison to the lockdown period but represented a decrease when compared to the period preceding the Covid-19 lockdown.

4.5.4 Comparison of Digital Devices with Reference to the Covid-19

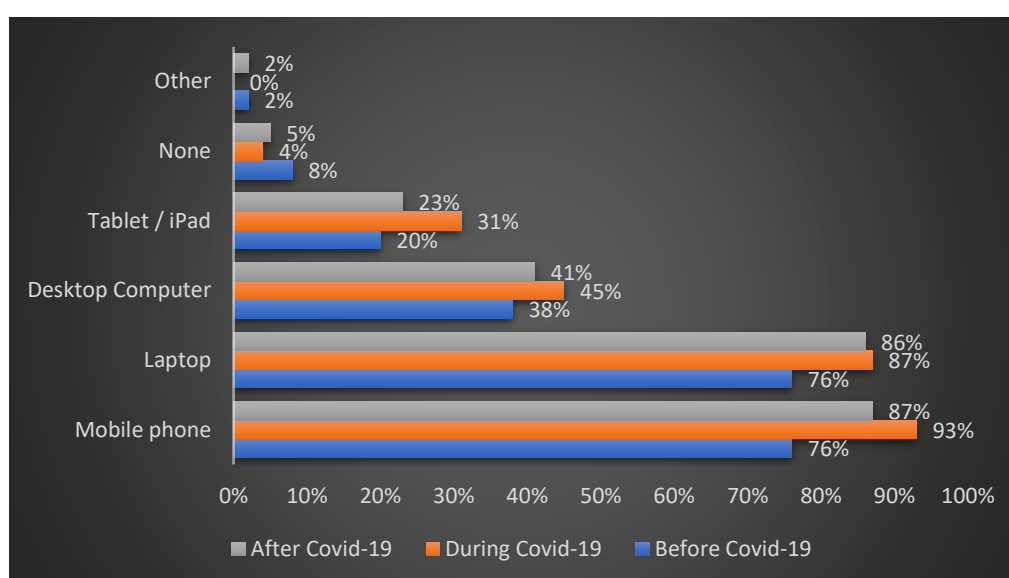


Chart 4.5.4 – Comparison of Digital Devices with reference to Covid-19

Digital Devices	Before Covid-19	During Covid-19	After Covid-19
Mobile phone	76%	93%	87%
Laptop	76%	87%	86%
Desktop Computer	38%	45%	41%
Tablet / iPad	20%	31%	23%
None	8%	4%	5%
Other	2%	0%	2%

Table 4.5.4 – Comparison of Digital Devices with reference to Covid-19

In direct comparison, the usage of all digital devices witnessed an increase during the Covid-19 lockdown when schools were closed. Although digital devices were predominantly utilized during this period, their usage continued to grow even after the lockdown, surpassing pre-Covid-19 levels. Consequently, Covid-19 played a pivotal role in the heightened adoption of digital devices for English language teaching and learning.

Throughout and post the Covid-19 lockdown, the mobile phone emerged as the most widely used digital device. The prevalence of mobile phone-based learning can be attributed to its personalized, portable, flexible, and user-friendly nature. This preference underscores the likelihood of language learning through mobile phones capturing the sustained interest of users.

4.5.5 Digital Media Platform Before Covid-19 Lockdown

Digital media platform that teachers were using to teach the English language until March 2020, before the Covid-19 lockdown.

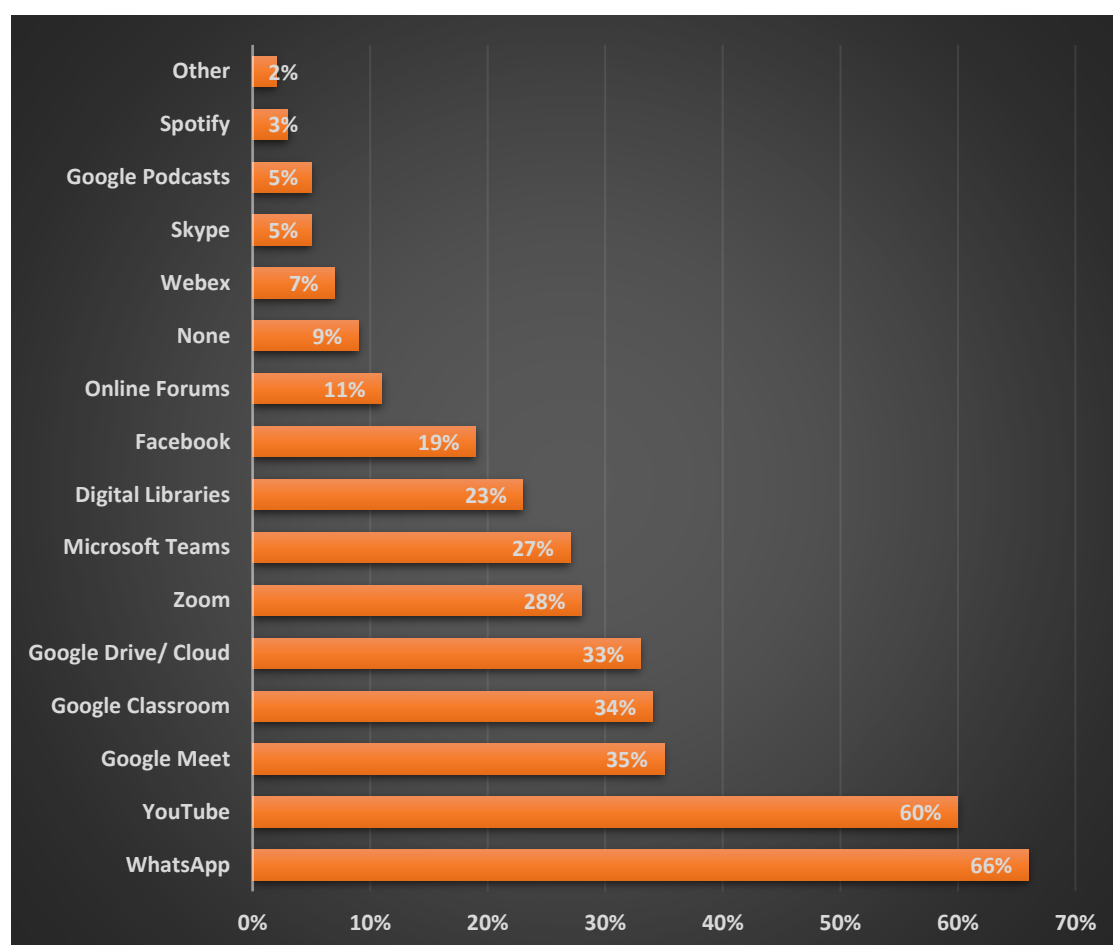


Chart 4.5.5 – Digital Media Platform – Before Covid-19

Digital media platform that teachers were using before the Covid-19 lockdown.	Percentage
WhatsApp	66%
YouTube	60%
Google Meet	35%
Google Classroom	34%
Google Drive/ Cloud	33%
Zoom	28%
Microsoft Teams	27%
Digital Libraries	23%
Facebook	19%
Online Forums	11%
None	9%
Webex	7%
Skype	5%
Google Podcasts	5%
Spotify	3%
Other	2%

Table 4.5.5 – Digital Media Platform – Before Covid-19

i) **Rural and Urban**

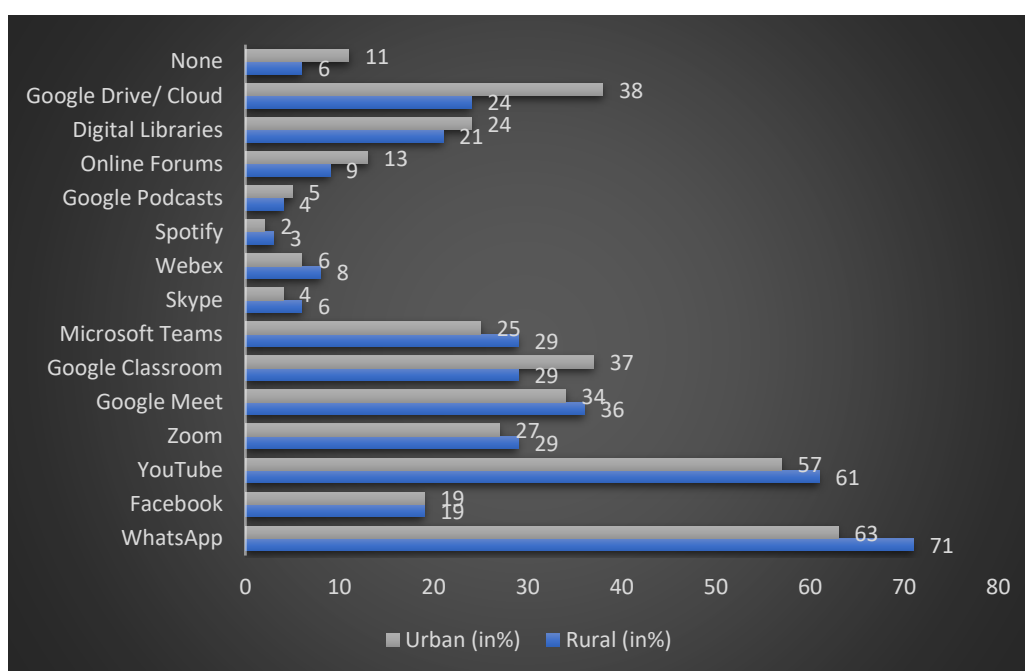


Chart 4.5.5 – Digital Media Platform – Before Covid-19 - Rural and Urban

Digital media platform that teachers were using before the Covid-19 lockdown	Rural (in %)	Urban (in%)
WhatsApp	71	63
YouTube	61	57
Google Meet	36	34
Microsoft Teams	29	25
Google Classroom	29	37
Zoom	29	27
Google Drive	24	38
Digital Libraries	21	24
Facebook	19	19
Online Forums	9	13
Webex	8	6
Skype	6	4
None	6	11
Google Podcast	4	5
Spotify	3	2

Table 4.5.5– Digital Media Platform - Before Covid-19 – Rural and Urban

ii) **Age Wise Distribution**

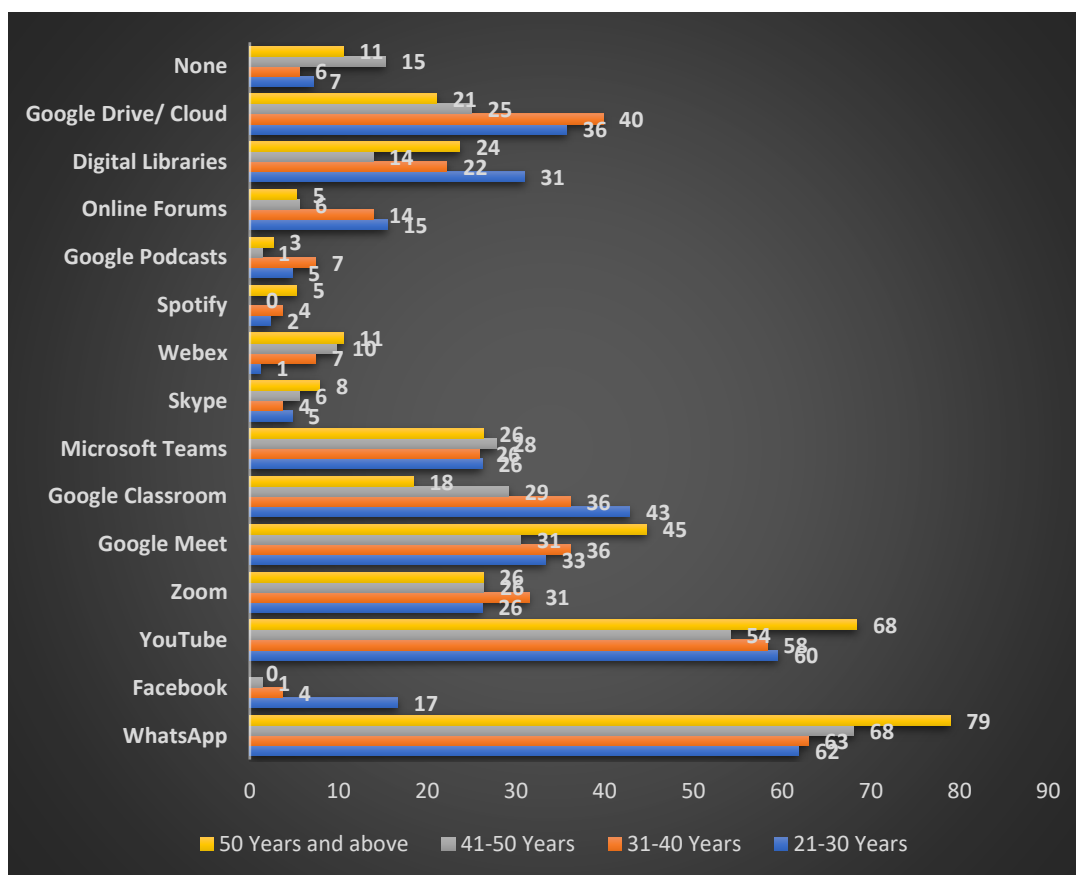


Chart 4.5.5-B – Digital Media Platform - Before Covid-19 – Age

Digital media platform that teachers were using before the Covid-19 lockdown	21-30 Years	31-40 Years	41-50 Years	50 Years +
WhatsApp	62	63	68	79
YouTube	60	58	54	68
Google Classroom	43	36	29	18
Google Drive/ Cloud	36	40	25	21
Google Meet	33	36	31	45
Digital Libraries	31	22	14	24
Zoom	26	31	26	26
Microsoft Teams	26	26	28	26
Facebook	17	4	1	0
Online Forums	15	14	6	5

None	7	6	15	11
Skype	5	4	6	8
Google Podcasts	5	7	1	3
Spotify	2	4	0	5
Webex	1	7	10	11

Table 4.5.5-B – Digital Media Platform - Before Covid-19 – Age

iii) Experience Wise Distribution

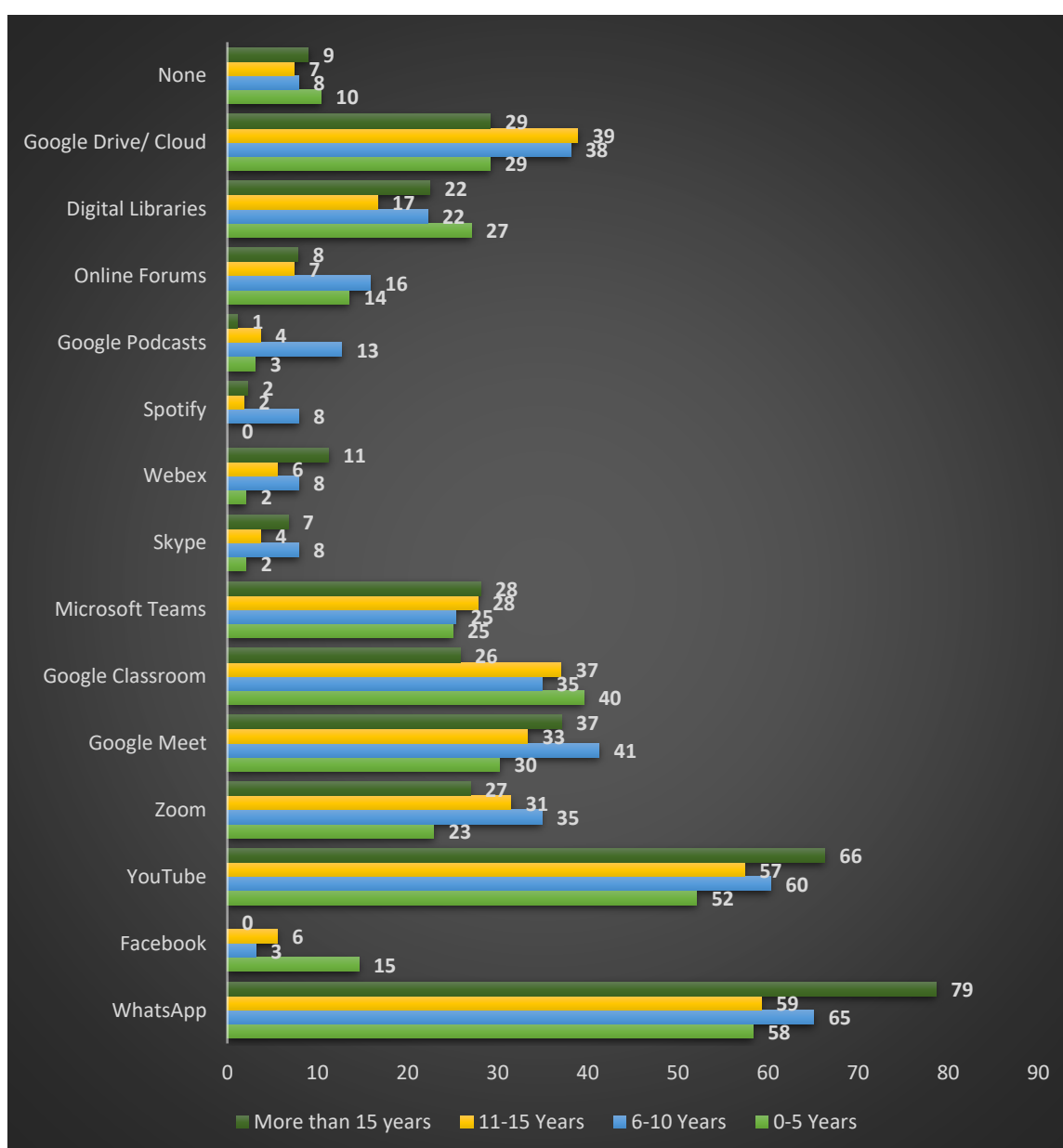


Chart 4.5.5-C – Digital Media Platform - Before Covid-19 – Experience

Digital media platform that teachers were using before the Covid-19 lockdown	0-5 Years	6-10 Years	11-15 Years	15 years+
WhatsApp	58	65	59	79
YouTube	52	60	57	66
Google Classroom	40	35	37	26
Google Meet	30	41	33	37
Google Drive/ Cloud	29	38	39	29
Digital Libraries	27	22	17	22
Microsoft Teams	25	25	28	28
Zoom	23	35	31	27
Facebook	15	3	6	0
Online Forums	14	16	7	8
None	10	8	7	9
Google Podcasts	3	13	4	1
Skype	2	8	4	7
Webex	2	8	6	11
Spotify	0	8	2	2

Table 4.5.5-C – Digital Media Platform - Before Covid-19 – Experience

Before the pandemic lockdown, WhatsApp emerged as the predominant digital platform, closely followed by YouTube, in both urban and rural areas. The utilization of digital platforms was nearly identical in rural and urban settings, with a slightly higher usage of Google Classroom and Google Drive observed in urban areas compared to rural areas. Conversely, Google Podcasts and Spotify were consistently the least favoured digital platforms in both urban and rural regions.

When considering age-wise or experience-wise distribution, the preference for digital devices remains consistent. WhatsApp and YouTube continue to be the top choices across different age groups and experience levels. Conversely, digital platforms such as Spotify, Google Podcasts, Webex, and Skype consistently rank among the least preferred options.

4.5.6 Digital Media Platform During Covid-19 Lockdown

Digital media platform teachers have used to teach the English language during the Covid-19 lockdown when Educational Institutes were closed?

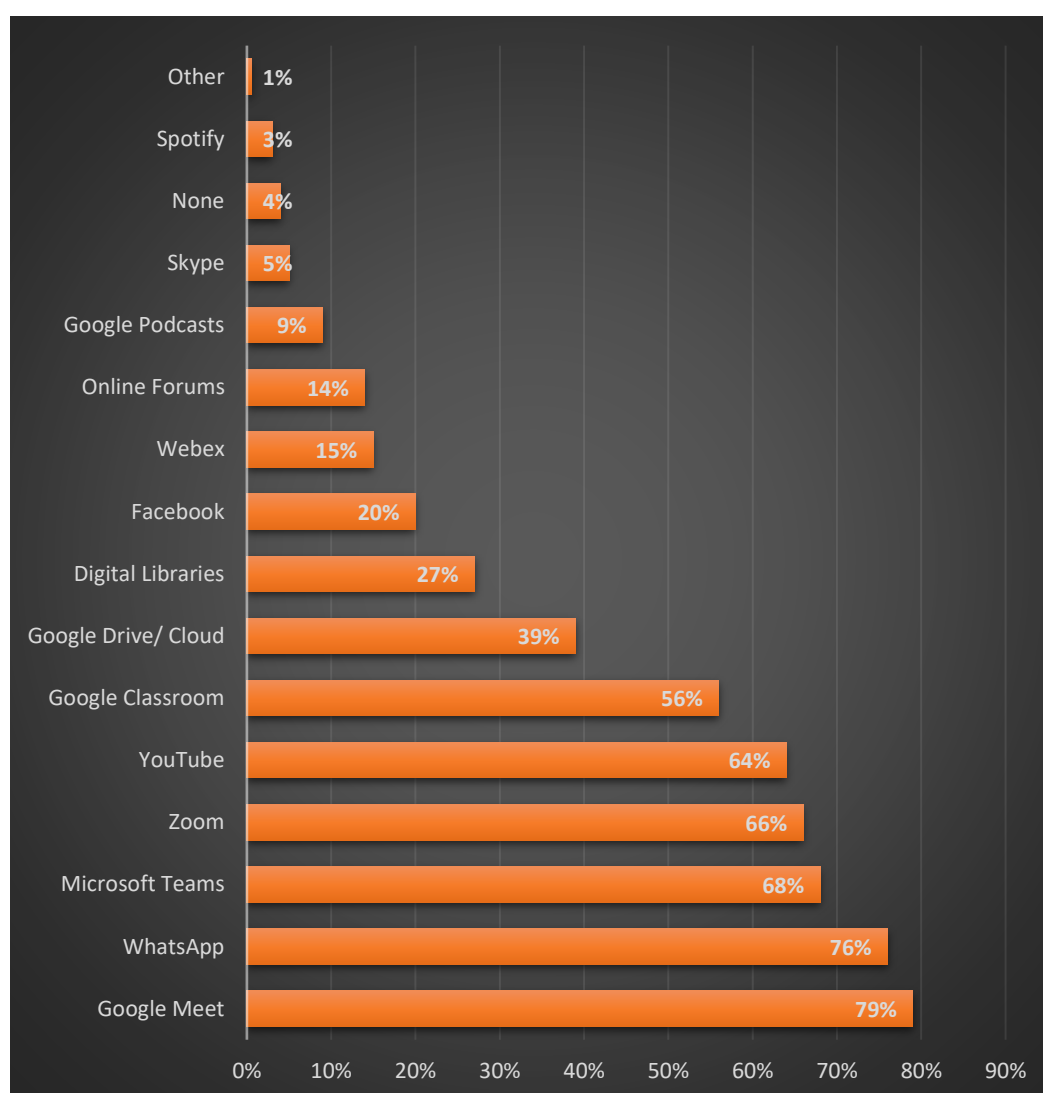


Chart 4.5.6– Digital Media Platform - During Covid-19 lockdown

Digital media platform teachers have used during the Covid-19 lockdown.	Percentage
Google Meet	79%
WhatsApp	76%
Microsoft Teams	68%
Zoom	66%
YouTube	64%
Google Classroom	56%
Google Drive/ Cloud	39%
Digital Libraries	27%
Facebook	20%
Webex	15%
Online Forums	14%
Google Podcasts	9%
Skype	5%
None	4%
Spotify	3%
Other	1%

Table 4.5.6– Digital Media Platform - During Covid-19 Lockdown

i) **Rural and Urban**

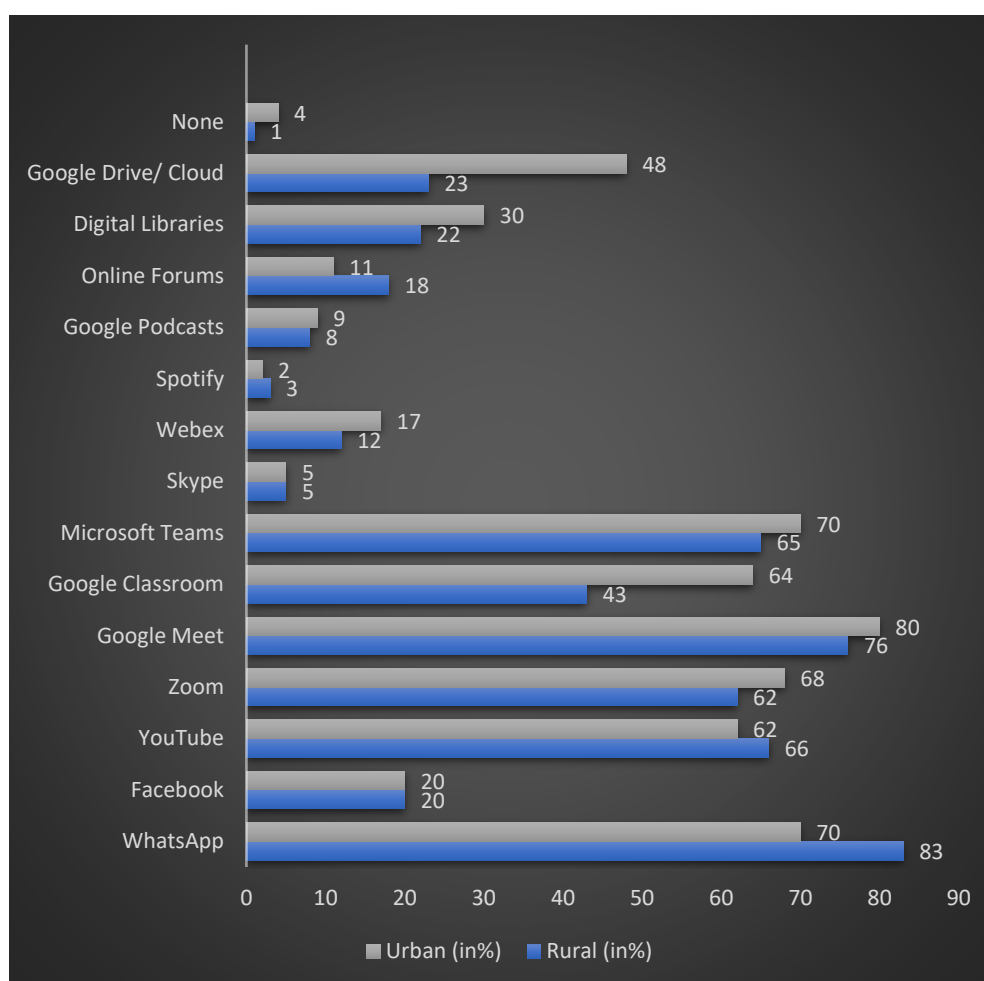


Chart 4.5.6-A – Digital Media Platform - During Covid-19 – Rural and Urban

Digital media platform teachers have used during the Covid-19 lockdown.	Rural (in %)	Urban (in%)
WhatsApp	83	70
Google Meet	76	80
YouTube	66	62
Microsoft Teams	65	70
Zoom	62	68
Google Classroom	43	64
Google Drive/ Cloud	23	48
Digital Libraries	22	30

Facebook	20	20
Online Forums	18	11
Webex	12	17
Google Podcasts	8	9
Skype	5	5
Spotify	3	2
None	1	4

Table 4.5.6-A – Digital Media Platform - During Covid-19 – Rural and Urban

ii) Age Wise Distribution

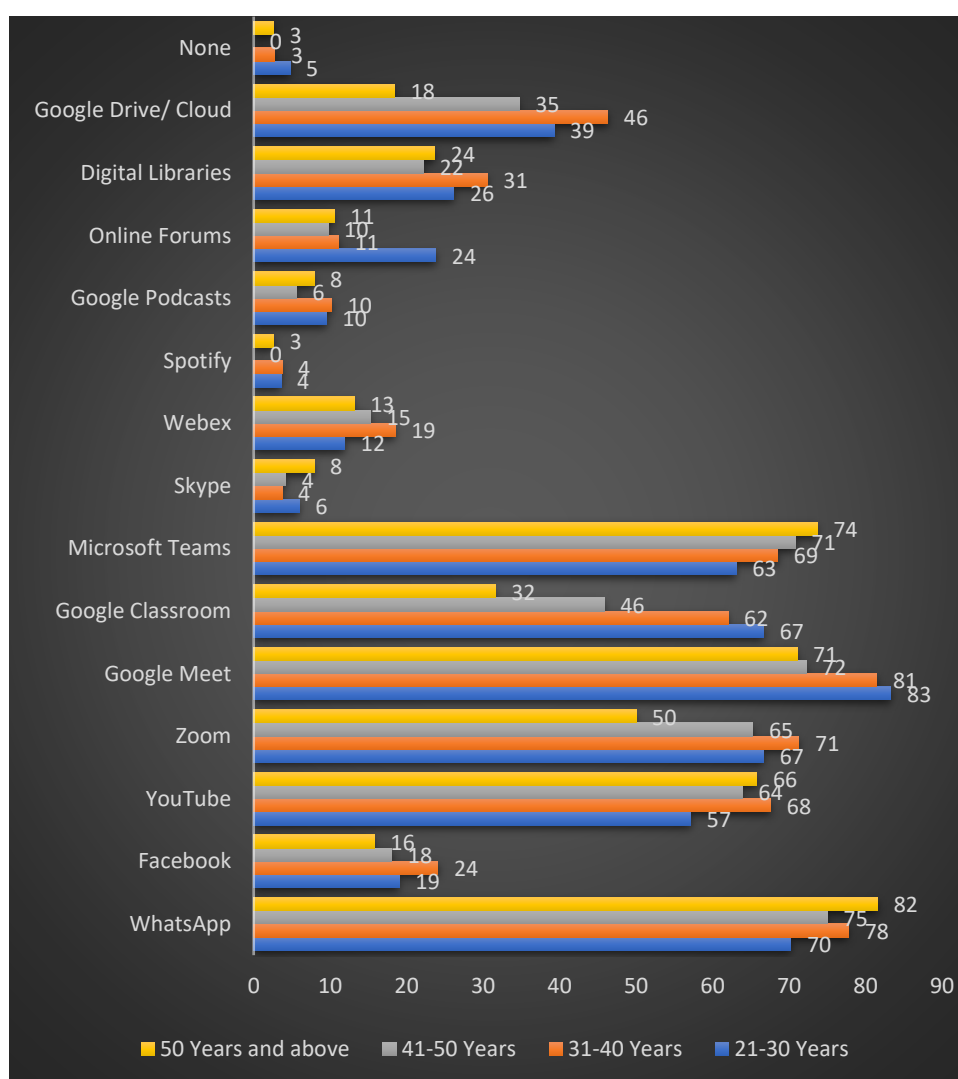


Chart 4.5.6-B – Digital Media Platform - During Covid-19 – Age

Digital media platform teachers have used during the Covid-19 lockdown.	21-30 Years	31-40 Years	41-50 Years	50 Years +
Google Meet	83	81	72	71
WhatsApp	70	78	75	82
Zoom	67	71	65	50
Google Classroom	67	62	46	32
Microsoft Teams	63	69	71	74
YouTube	57	68	64	66
Google Drive/ Cloud	39	46	35	18
Digital Libraries	26	31	22	24
Online Forums	24	11	10	11
Facebook	19	24	18	16
Webex	12	19	15	13
Google Podcasts	10	10	6	8
Skype	6	4	4	8
None	5	3	0	3
Spotify	4	4	0	3

Table 4.5.6-B – Digital Media Platform - During Covid-19 – Age

iii) Experience Wise Distribution

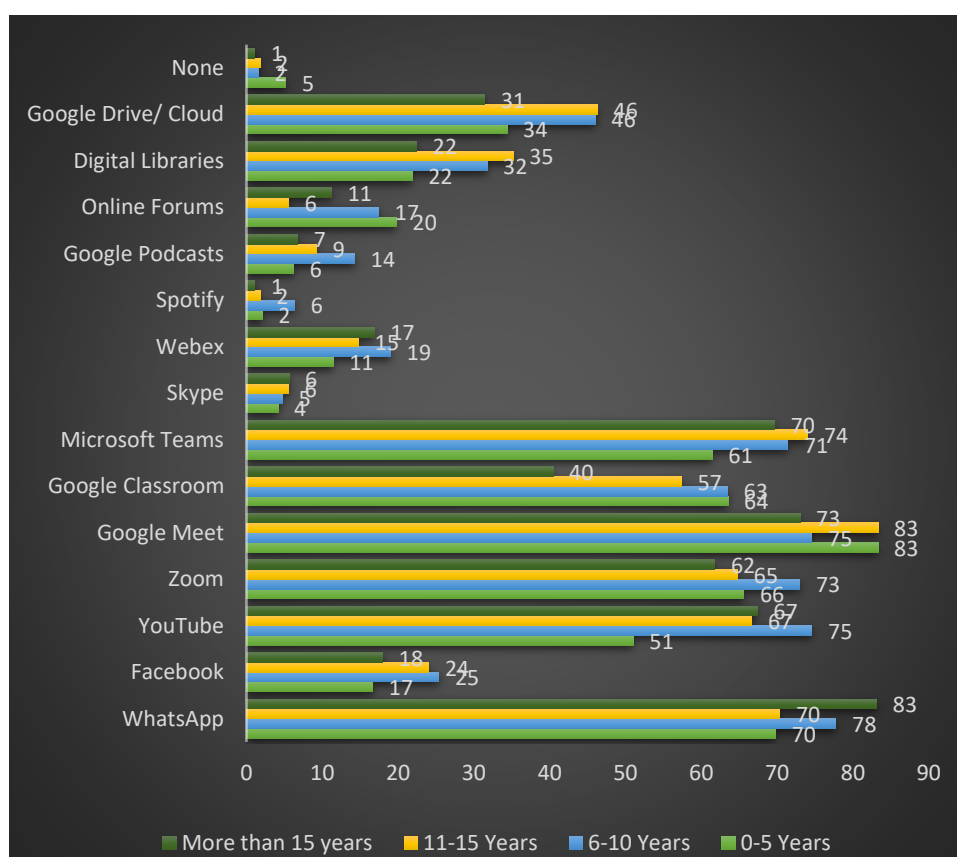


Chart 4.5.6-C – Digital Media Platform – During Covid-19 – Experience

Digital media platform teachers have used during the Covid-19 lockdown.	0-5 Years	6-10 Years	11-15 Years	15 years+
Google Meet	83	75	83	73
WhatsApp	70	78	70	83
Zoom	66	73	65	62
Google Classroom	64	63	57	40
Microsoft Teams	61	71	74	70
YouTube	51	75	67	67

Google Drive/ Cloud	34	46	46	31
Digital Libraries	22	32	35	22
Online Forums	20	17	6	11
Facebook	17	25	24	18
Webex	11	19	15	17
Google Podcasts	6	14	9	7
None	5	2	2	1
Skype	4	5	6	6
Spotify	2	6	2	1

Table 4.5.6 -C – Digital Media Platform - During Covid-19 – Experience

During the Covid-19 lockdown, the predominant digital tools in both urban and rural areas were WhatsApp and Google Meet. Notably, the surge in Google Meet usage was influenced by its role as a class organization platform, given the complete shift to online education during the lockdown period. The usage of various class organization platforms increased substantially in both rural and urban areas, with an equitable distribution across platforms. However, a notable disparity existed in the utilization of Google Classroom and Google Meet, with these applications being more prevalent in urban areas.

In terms of age-wise and experience-wise analysis, respondents aged 21-30 and 31-40 exhibited a higher preference for Google Meet, while respondents aged 41-50 and 51 years and older leaned towards WhatsApp. Experience-wise, those with 0-5 and 11-15 years of experience favoured Google Meet, while individuals with 6-10 and 15 or more years of experience showed a preference for WhatsApp. The usage of class organization platforms experienced a notable uptick during the Covid-19 lockdown, while applications related to podcasts, such as Google Podcasts, Spotify, and Skype, were among the least preferred by the respondents.

4.5.7 Digital Media Platform After Covid-19 Lockdown

Digital media platforms teachers use to teach the English language post Covid-19 lockdown after the opening of Educational Institutes/ Universities/ Colleges.

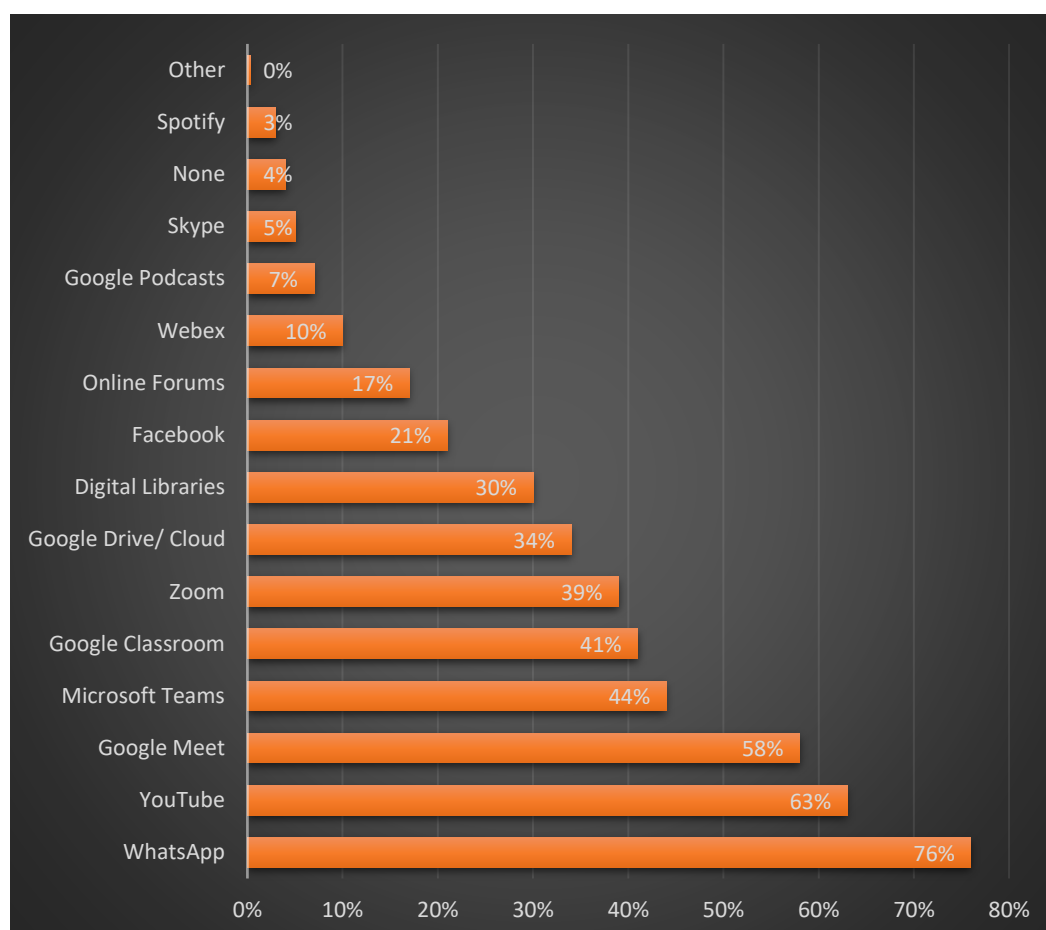


Chart 4.5.7 – Digital Media Platform – After Covid-19 Lockdown

Digital media teachers use post Covid-19 lockdown after the opening of Educational Institutes	Percentage
WhatsApp	76%
YouTube	63%
Google Meet	58%
Microsoft Teams	44%
Google Classroom	41%
Zoom	39%

Google Drive/ Cloud	34%
Digital Libraries	30%
Facebook	21%
Online Forums	17%
Webex	10%
Google Podcasts	7%
Skype	5%
None	4%
Spotify	3%
Other	0%

Table 4.5.7 – Digital Media Platform - After Covid-19 Lockdown

i) Rural and Urban

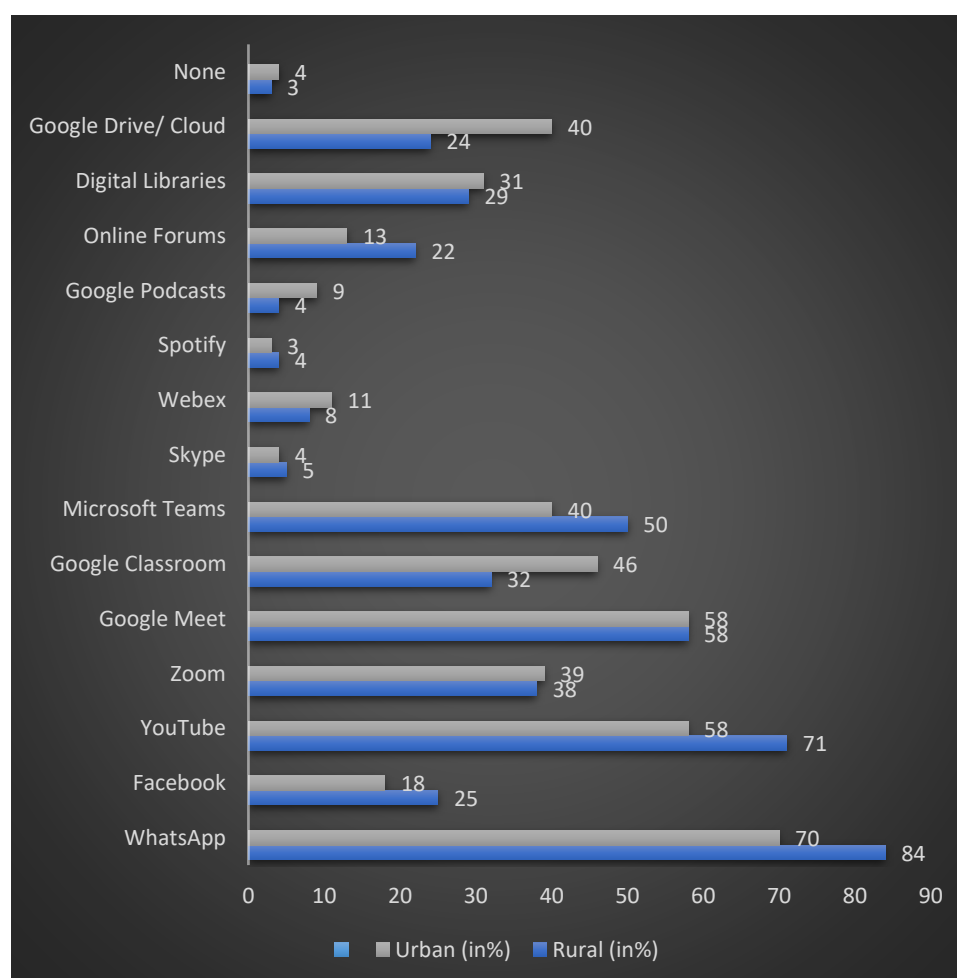


Chart 4.5.7-A – Digital Media Platform - After Covid-19 – Rural and Urban

Digital media teachers use post Covid-19 lockdown after the opening of Educational Institutes	Rural (in%)	Urban (in%)
WhatsApp	84	70
YouTube	71	58
Google Meet	58	58
Microsoft Teams	50	40
Zoom	38	39
Google Classroom	32	46
Digital Libraries	29	31
Facebook	25	18
Google Drive/ Cloud	24	40
Online Forums	22	13
Webex	8	11
Skype	5	4
Spotify	4	3
Google Podcasts	4	9
None	3	4

Table 4.5.7-A – Digital Media Platform - After Covid-19 – Rural and Urban

ii) Age Wise Distribution

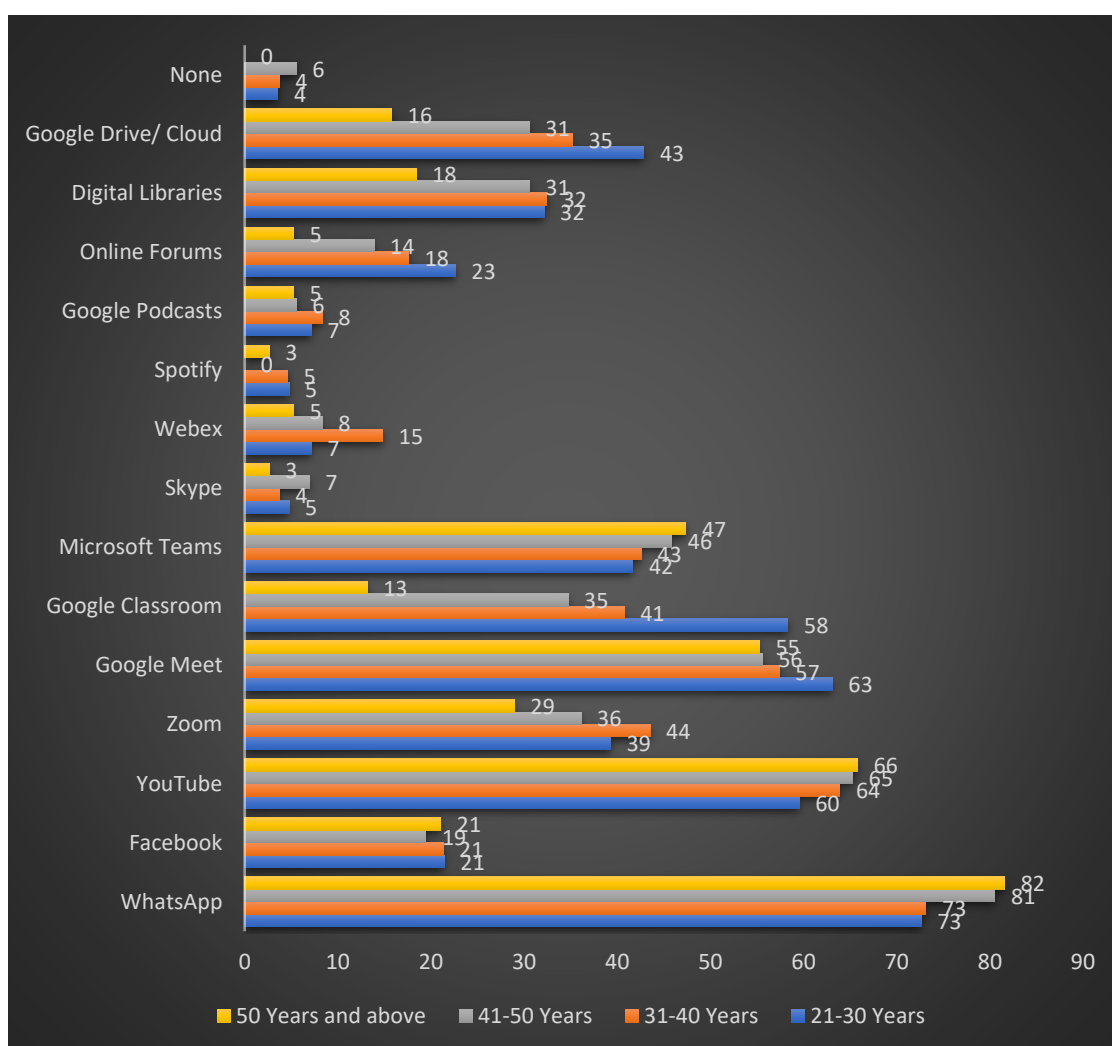


Chart 4.5.7-B – Digital Media Platform - After Covid-19 Lockdown– Age

Digital media teachers use post Covid-19 lockdown after the opening of Educational Institutes	21-30 Years	31-40 Years	41-50 Years	50 Years +
WhatsApp	73	73	81	82
Google Meet	63	57	56	55
YouTube	60	64	65	66
Google Classroom	58	41	35	13
Google Drive/ Cloud	43	35	31	16
Microsoft Teams	42	43	46	47
Zoom	39	44	36	29

Digital Libraries	32	32	31	18
Online Forums	23	18	14	5
Facebook	21	21	19	21
Webex	7	15	8	5
Google Podcasts	7	8	6	5
Skype	5	4	7	3
Spotify	5	5	0	3
None	4	4	6	0

Table 4.5.7-B – Digital Media Platform - After Covid Lockdown-19 – Age

iii) Experience Wise Distribution

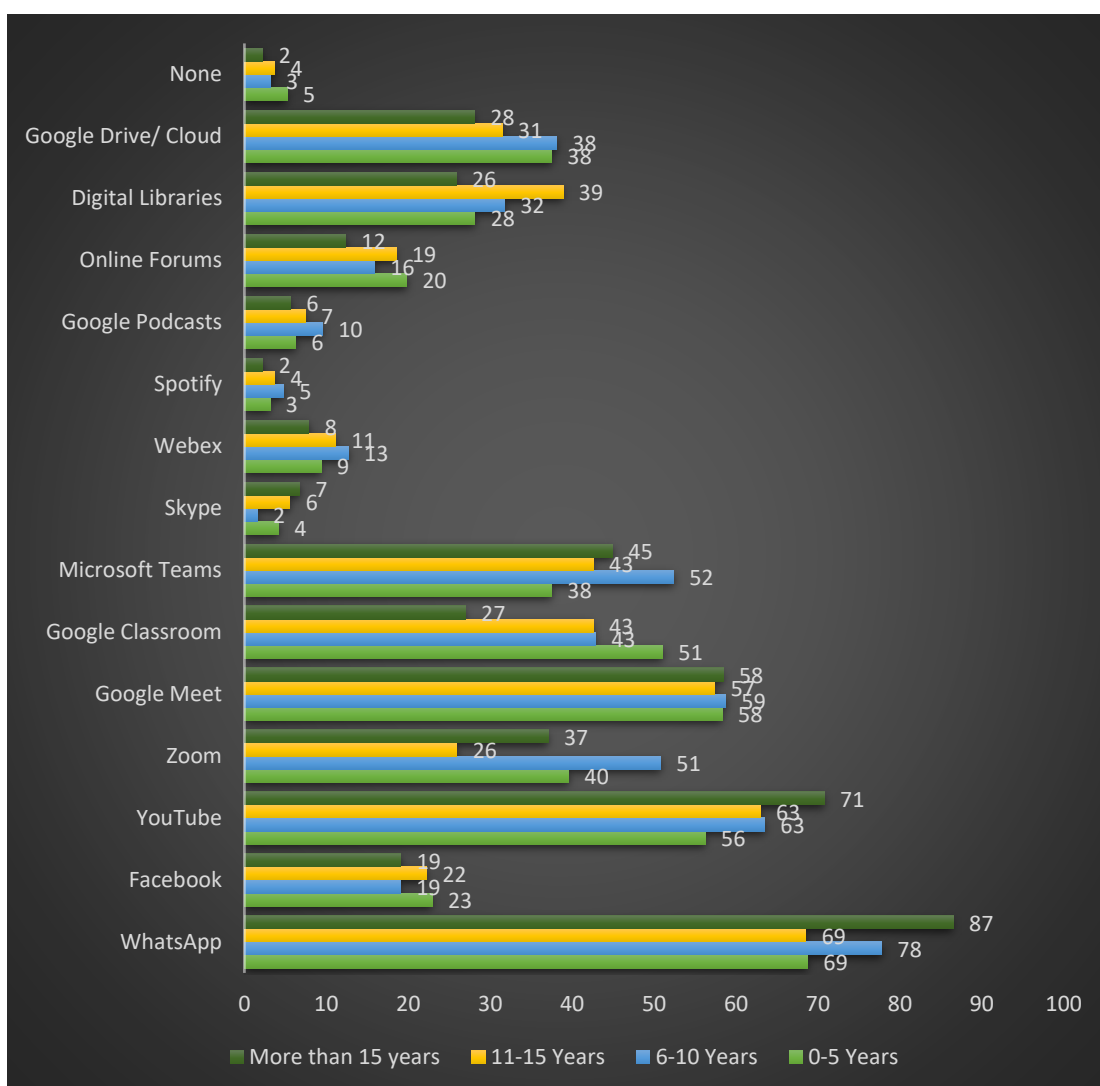


Chart 4.5.7-C – Digital Media Platform - After Covid-19 Lockdown – Experience

Digital media teachers use post Covid-19 lockdown after the opening of Educational Institutes	0-5 Years	6-10 Years	11-15 Years	15 years+
WhatsApp	69	78	69	87
Google Meet	58	59	57	58
YouTube	56	63	63	71
Google Classroom	51	43	43	27
Zoom	40	51	26	37
Microsoft Teams	38	52	43	45
Google Drive/ Cloud	38	38	31	28
Digital Libraries	28	32	39	26
Facebook	23	19	22	19
Online Forums	20	16	19	12
Webex	9	13	11	8
Google Podcasts	6	10	7	6
None	5	3	4	2
Skype	4	2	6	7
Spotify	3	5	4	2

Table 4.5.7-C – Digital Media Platform - After Covid-19 Lockdown – Experience

Following the reopening of educational institutes post the Covid-19 lockdown, there has been a slight reduction in the usage of class organization platforms. Notably, the most favoured application for English Language Teaching (ELT) in both urban and rural areas is WhatsApp, closely followed by YouTube. Class organization platforms come next in terms of popularity. The preference for Google Drive or cloud services is higher in urban areas compared to rural areas, whereas Facebook holds more appeal in rural settings. Google Podcasts and Spotify, however, do not capture significant attention among respondents.

When examining age-wise and experience-wise distributions, WhatsApp emerges as the top choice across all groups. In the 21-30 age group, respondents express a preference for Google Meet after WhatsApp, while all other age groups lean towards YouTube. In terms of experience, respondents with 0-5 years favour Google Meet after WhatsApp, while those with more experience predominantly opt for YouTube. Nevertheless, WhatsApp remains the foremost choice, followed by Google Meet and YouTube.

It is noteworthy that class organization platforms have witnessed increased popularity since the shift to online education during the Covid-19 lockdown.

4.5.8 Comparison of Digital Mediums with Reference to Covid-19 Lockdown

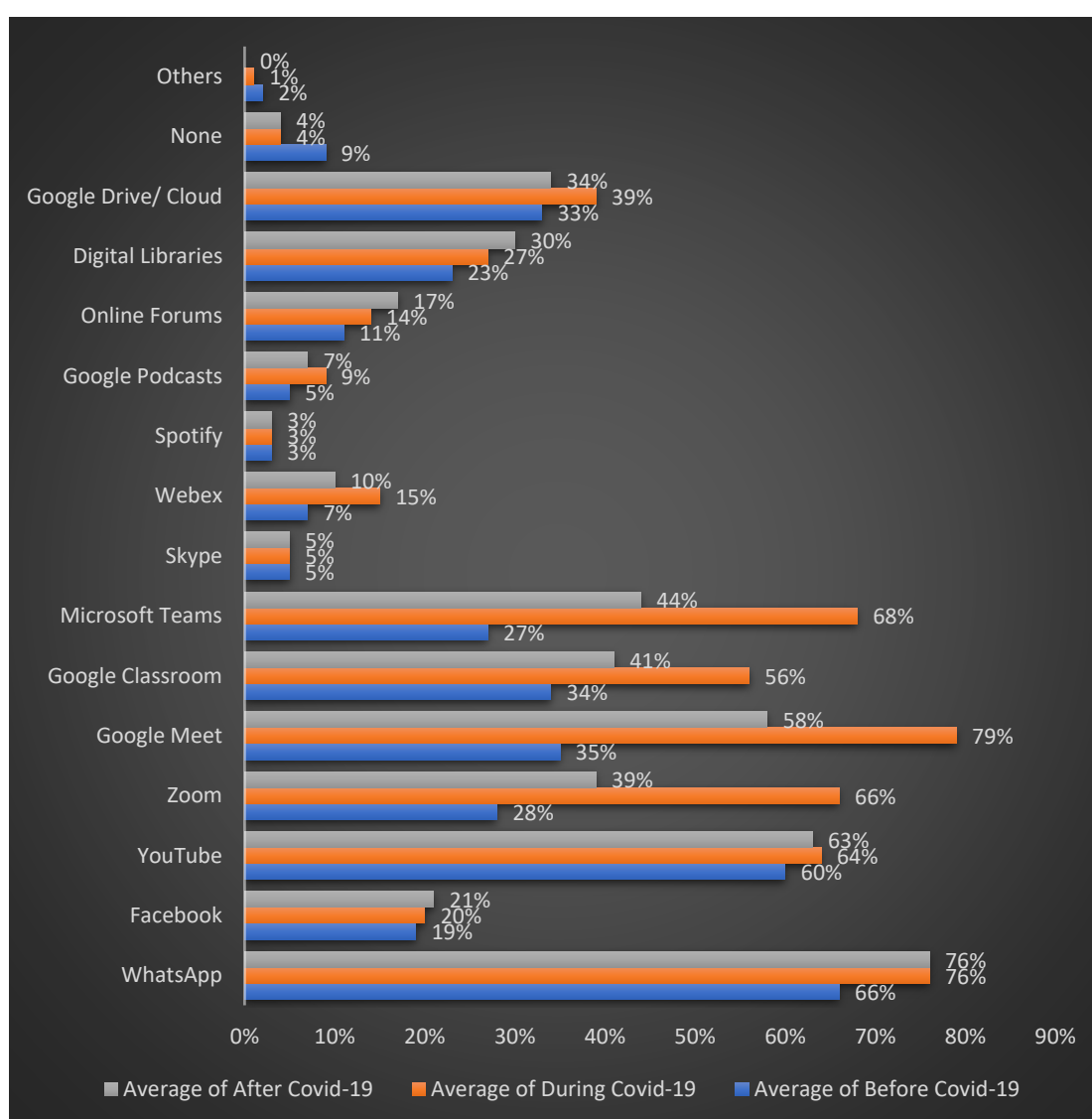


Chart 4.5.8 – Comparison of Digital Mediums with reference to Covid-19

Digital Platform	Before Covid-19	During Covid-19	After Covid-19
WhatsApp	66%	76%	76%
Facebook	19%	20%	21%
YouTube	60%	64%	63%
Zoom	28%	66%	39%
Google Meet	35%	79%	58%
Google Classroom	34%	56%	41%
Microsoft Teams	27%	68%	44%
Skype	5%	5%	5%
Webex	7%	15%	10%
Spotify	3%	3%	3%
Google Podcasts	5%	9%	7%
Online Forums	11%	14%	17%
Digital Libraries	23%	27%	30%
Google Drive/ Cloud	33%	39%	34%
None	9%	4%	4%
Others	2%	1%	0%

Table 4.5.8 – Comparison of Digital Mediums with reference to Covid-19

Prior to the widespread use of digital media platforms, WhatsApp held its status as the most popular medium. This trend persisted even after the COVID-19 lockdown. However, during the lockdown, the landscape shifted, with Google Meet emerging as the most utilized digital media platform for educational purposes.

Throughout the transition from pre-COVID-19 to the lockdown period, there was a notable surge in the adoption of class-organization platforms such as Zoom, Google Classroom, Google Meet, and Microsoft Teams. Notably, WhatsApp and YouTube maintained their popularity, experiencing no significant deviation.

In contrast, platforms like Facebook, Skype, Webex, Spotify, and Google Podcasts did not witness widespread use for ELL (English Language Learning), and their usage remained relatively constant before, during, and after the lockdown.

Digital libraries and online forums experienced a modest increase in usage during and after the COVID-19 lockdown. Google Drive, on the other hand, remained consistently popular.

While a larger number of people started using digital devices post-COVID-19, it is crucial to recognize that during the lockdown, the exclusive medium for ELL was digital. Consequently, there was a temporary surge in the usage of digital platforms during that period. However, when comparing usage before and after COVID-19, a general increase in the adoption of all digital platforms is observed, with WhatsApp and class-organization platforms such as Google Classrooms, Google Meet, Zoom, and Microsoft Teams experiencing the most significant spikes in popularity. Post-COVID-19, WhatsApp, YouTube, and Google Meet continue to be the most widely used platforms.

4.5.9 Technical Skills

Are teachers' technical skills advanced post Covid-19 lockdown in online teaching?

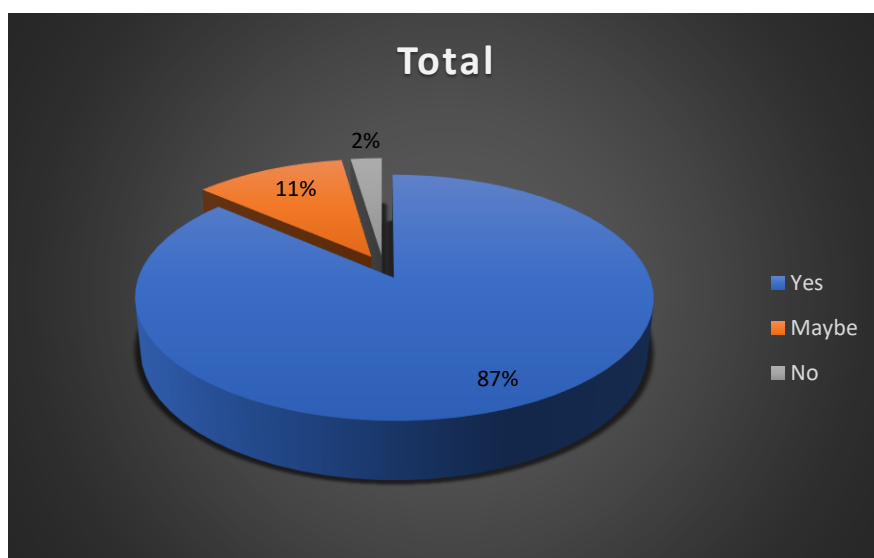


Chart 4.5.9 – Technical Skills

Technical skills of teachers post Covid-19 lockdown in online teaching	Count of Responses	Percentage
Yes	261	87%
Maybe	34	11%
No	7	2%

Table 4.5.9 – Technical Skills

Amidst the COVID-19 lockdown, when physical educational institutions were shuttered and online learning emerged as the sole recourse, teachers underwent a transformative experience, acquiring a novel approach to digital and technical teaching. A substantial 87% of respondents assert that their skill set witnessed refinement during the lockdown, given that the digital medium became the exclusive conduit for teaching and learning. While 11% remain uncertain about the impact on their skill set, a mere 2% outright deny any improvement. Consequently, the findings underscore the pivotal role played by the COVID-19 lockdown in enhancing the skill sets of most teachers.

i) Rural and Urban

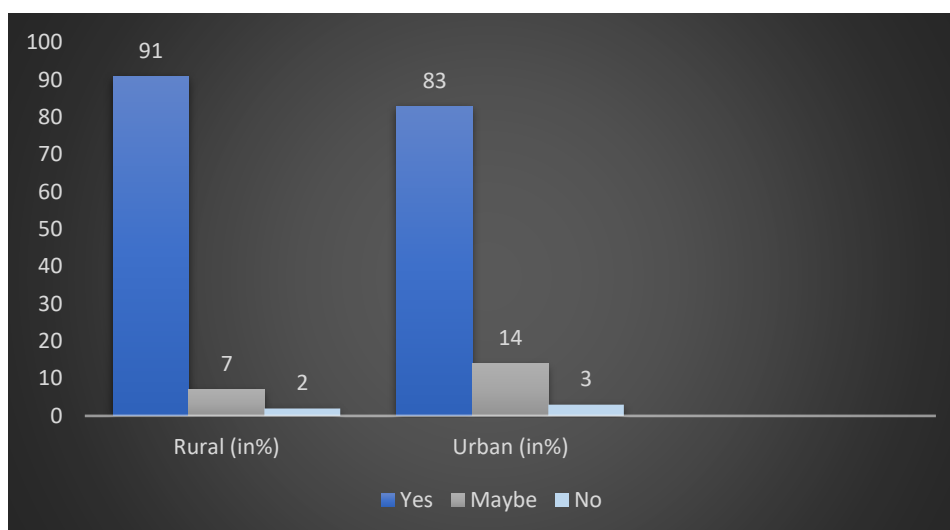


Chart 4.5.9-A: Technical Skills – Rural and Urban

Technical skills of teachers post Covid-19 lockdown in online teaching	Rural (in%)	Urban (in%)
Yes	91	83
Maybe	7	14
No	2	3

Table 4.5.9-A: Technical Skills – Rural and Urban

ii) Age Wise Distribution

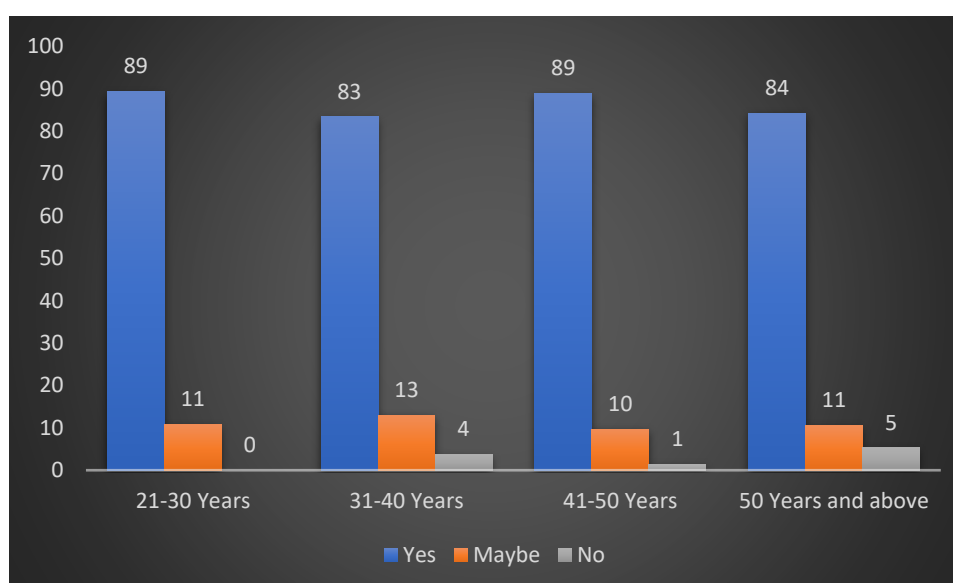


Chart 4.5.9-B: Technical Skills – Age Wise Distribution

Technical skills of teachers post Covid-19 lockdown in online teaching	21-30 Years	31-40 Years	41-50 Years	50 Years +
Yes	89	83	89	84
Maybe	11	13	10	11
No	0	4	1	5

Table 4.5.9-B: Technical Skills – Age Wise Distribution

iii) Experience Wise Distribution

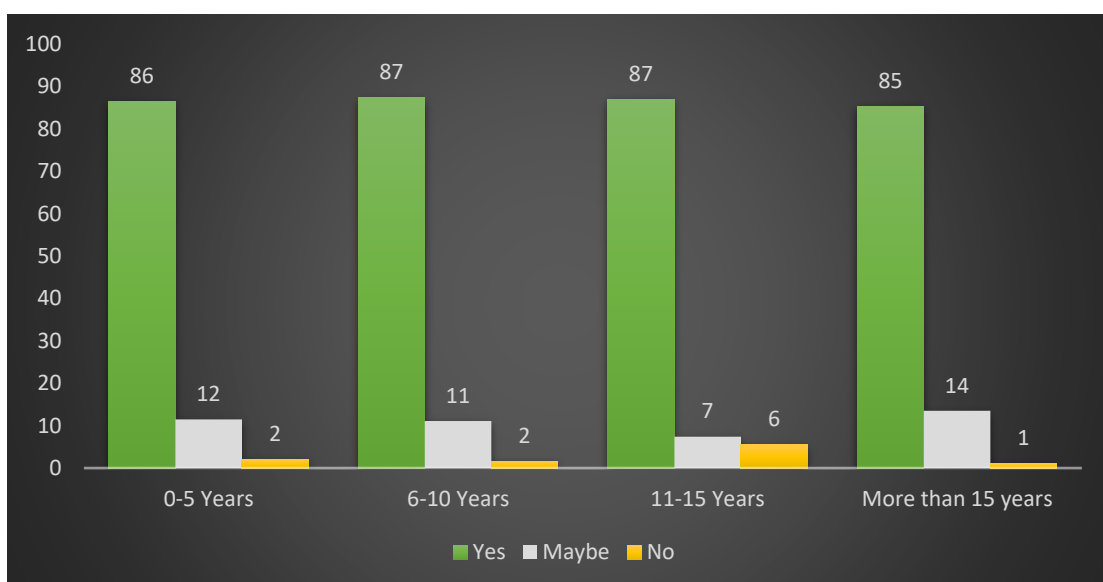


Chart 4.5.9-C: Technical Skills – Experience

Technical skills of teachers post Covid-19 lockdown in online teaching	0-5 Years	5-10 Years	10-15 Years	15 Years +
Yes	86	87	87	85
Maybe	12	11	7	14
No	2	2	6	1

Table 4.5.9-C: Technical Skills – Experience

Most respondents, comprising 91% from rural areas and 83% from urban regions, express a consensus that their technical proficiency in online education has significantly advanced in the post-COVID-19 education landscape. When considering age and experience levels, a significant proportion of teachers affirm that their skillsets have notably improved during the pandemic lockdown.

Specifically, amidst the challenges posed by the COVID-19 lockdown, teachers gained valuable insights and experience in utilizing online teaching methods. This period of exclusively online instruction served as a significant learning curve, contributing to the enhancement of their skills related to the intricacies of the online education system.

4.6 The Role of Educational Institutes in Online / Mobile Classes and MOOC Learning

MOOC stands for Massive Open Online Courses. The research endeavours to explore the utilization, frequency, and awareness of MOOC programs. This section addresses seven questions pertaining to the use of mobile phones in the classroom and engagement with MOOC programs by students.

4.6.1 Use of Mobiles in Educational Institutes

How frequently does Colleges/ Universities/ Institutions allow students to use mobile phones in class for educational purposes?

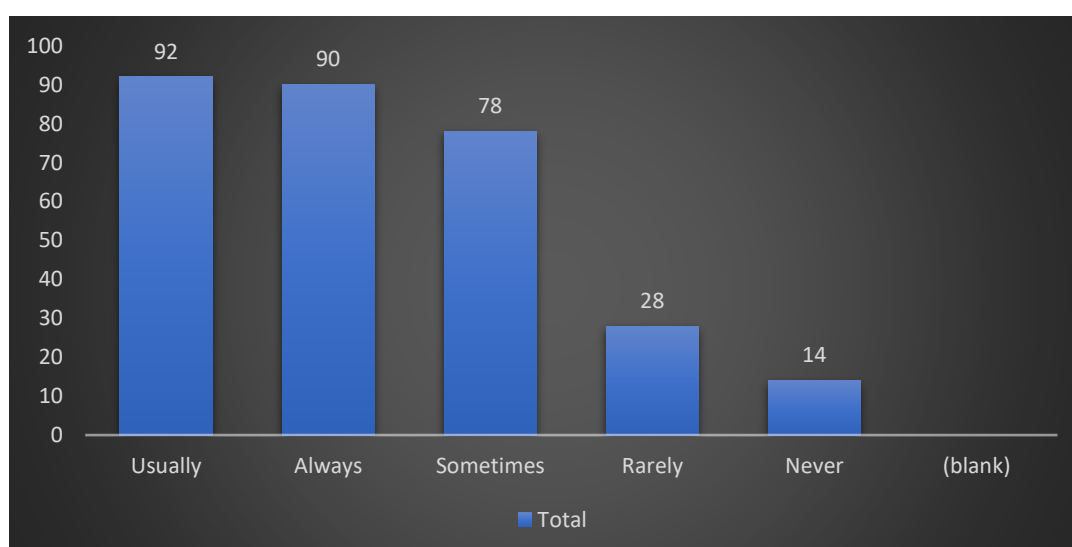


Chart 4.6.1 – Use of Mobiles in Educational Institutes

Colleges/ Universities/ Institutions allow students to use mobile phones in class for educational purposes	Count of Responses	Percentage
Usually	92	30%
Always	89	30%
Sometimes	78	26%
Rarely	28	9%
Never	14	5%

Table 4.6.1 – Use of Mobiles in Educational Institutes

The study aimed to investigate the extent to which colleges, institutes, and universities permit mobile learning within their educational environments. The findings indicate that 30% of respondents affirm that their institutes consistently allow the use of mobile phones for learning purposes. Another 30% state that their institutes generally permit mobile learning but may have occasional restrictions. An additional 26% of respondents report that their institutes sometimes allow mobile learning, depending on specific needs. Overall, a majority of colleges, universities, and institutes demonstrate flexibility towards mobile learning, allowing it on most occasions. Only a minimal 5% of respondents mention that their educational institutes either never permit or have outright banned the use of mobile phones for student learning purposes.

i) **Rural and Urban**

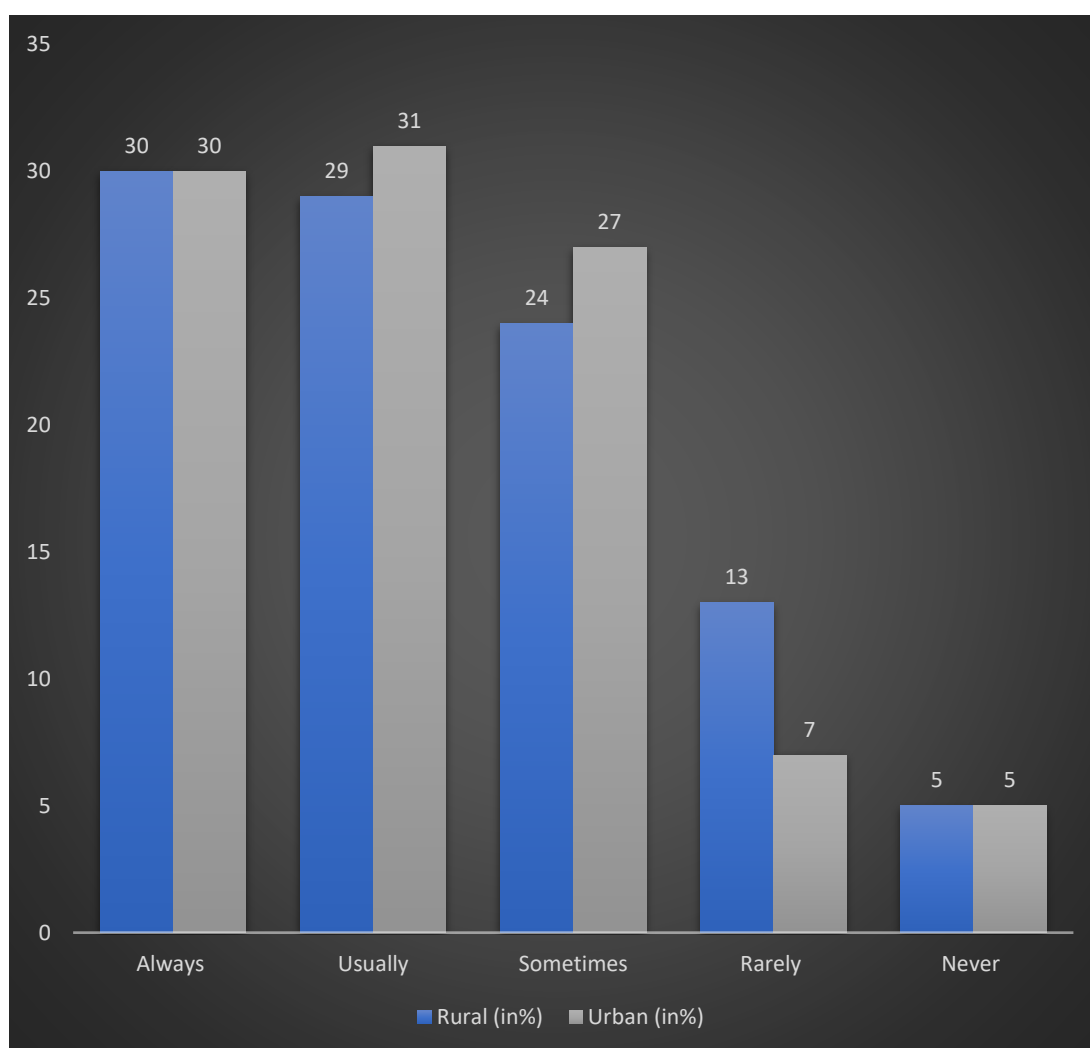


Chart 4.6.1-A – Use of Mobiles in Educational Institutes – Rural and Urban

Colleges/ Universities/ Institutions allow students to use mobile phones in class for educational purposes	Rural (in%)	Urban (in%)
Always	30	30
Usually	29	31
Sometimes	24	27
Rarely	13	7
Never	5	5

Table 4.6.1-A – Use of Mobiles in Educational Institutes – Rural and Urban

In both urban and rural areas, educational institutions generally permit students to use mobile phones for academic purposes. Only a minority of colleges and institutions infrequently or never allow the use of mobile phones for students. Consequently, students have consistent access to the internet within educational institutes, enabling them to employ mobile phones as learning aids in their classrooms for English language learning.

4.6.2 Mobile Teaching for ELT

Do Colleges / Universities/ Institutions support mobile teaching for English language teaching?

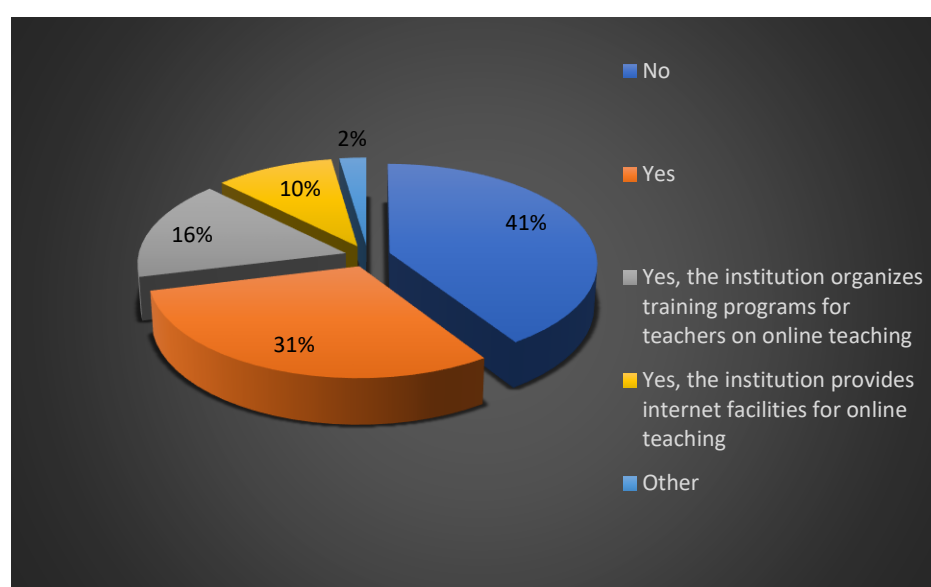


Chart 4.6.2 – Mobile Teaching for ELT

Support of Colleges / Universities/ Educational Institutes for mobile learning and teaching	Count of Responses	Percentage
No	123	41%
Yes	92	30%
Yes, the institution organizes training programs for teachers on online teaching	49	16%
Yes, the institution provides internet facilities for online teaching	31	10%
Other	7	2%

Table 4.6.2 – Mobile Teaching for ELT

According to the responses, 41% of teachers express that their colleges do not support teaching the English language using mobile phones. Conversely, 30% of respondents indicate that their colleges permit the use of mobile phones for English language instruction. Only 16% of participants acknowledge that their educational institutes organize teacher training programs specifically tailored for online teaching, while a mere 10% state that their institutes provide internet facilities to support online teaching.

The findings suggest that colleges in Gujarat State exhibit a limited enthusiasm towards online teaching. While they have not imposed a ban on it, there is a lack of proactive initiatives to promote or facilitate online teaching within these institutions.

i) Rural and Urban

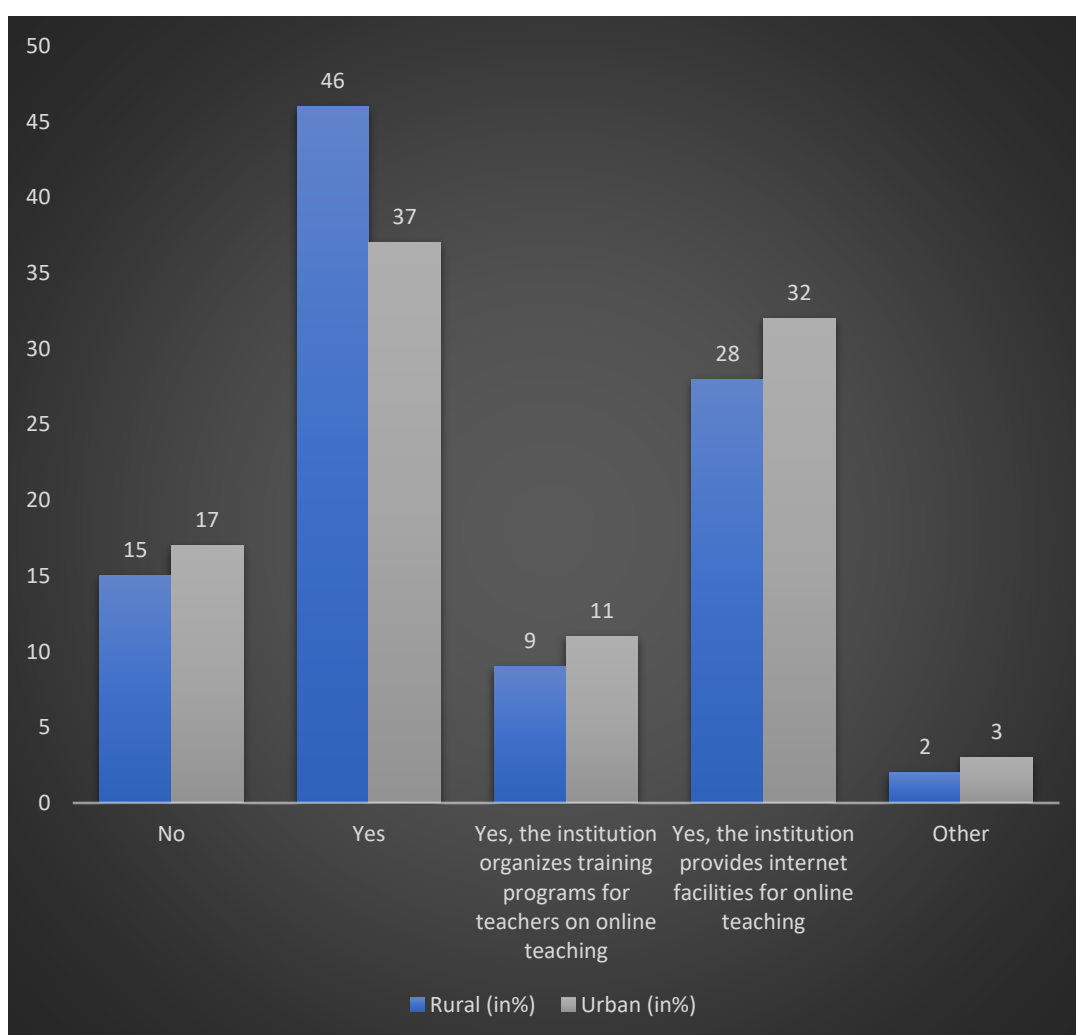


Chart 4.6.2-A– Mobile Teaching for ELT – Rural and Urban

Support of Colleges / Universities/ Educational Institutes for mobile learning and teaching	Rural (in%)	Urban (in%)
No	15	17
Yes	46	37
Yes, the institution organizes training programs for teachers on online teaching	9	11
Yes, the institution provides internet facilities for online teaching	28	32
Other	2	3

Table 4.6.2-A – Mobile Teaching for ELT – Rural and Urban

As reported by 46% of respondents from rural areas and 37% from urban areas, their respective colleges, institutes, or universities permit the use of mobile phones for teaching the English language. Additionally, 28% of respondents from rural areas and 32% from urban areas indicate that their institutions actively support mobile teaching by providing internet connections to facilitate online English language instruction.

Furthermore, a smaller percentage of respondents, 9% from rural areas and 11% from urban areas, note that their institutions organize teacher training programs specifically designed for online teaching. On the flip side, 15% of respondents from rural areas and 17% from urban areas express that their institutions do not endorse mobile teaching for English Language Teaching (ELT).

4.6.3 Mobile Phones for Teaching Purposes

Is using mobile phones for teaching purposes in colleges/ institutions banned by the respective management?

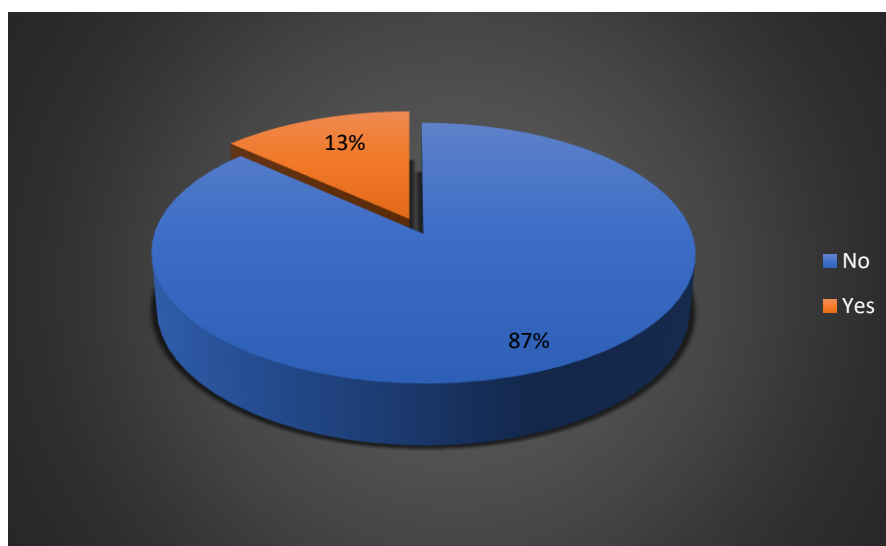


Chart 4.6.3 – Mobile Phones for Teaching

Using of mobile phones for teaching purposes in colleges/ institutions banned by management?	Count of Responses	Percentage
No	262	87%
Yes	40	13%

Table 4.6.3 – Mobile Phones for Teaching

As per the previous findings, it was evident that certain colleges proactively encourage online learning by offering teacher training programs and facilitating internet access. While most colleges may not actively promote online learning, they also refrain from imposing a ban on its usage. Teachers retain the autonomy to decide whether to incorporate mobile phones into English Language Teaching (ELT). Only a limited 13% of respondents note that their college explicitly prohibits the use of mobile phones for teaching purposes, while a significant 87% of colleges do not enforce such restrictions, allowing teachers the flexibility to choose whether to integrate mobile devices into their teaching methods.

4.6.4 MOOC Learning Platforms

- i) Are teachers aware of any MOOC learning platform for English language learning?
- ii) If yes, please mark all the MOOC learning platforms you are aware of for learning English Language.

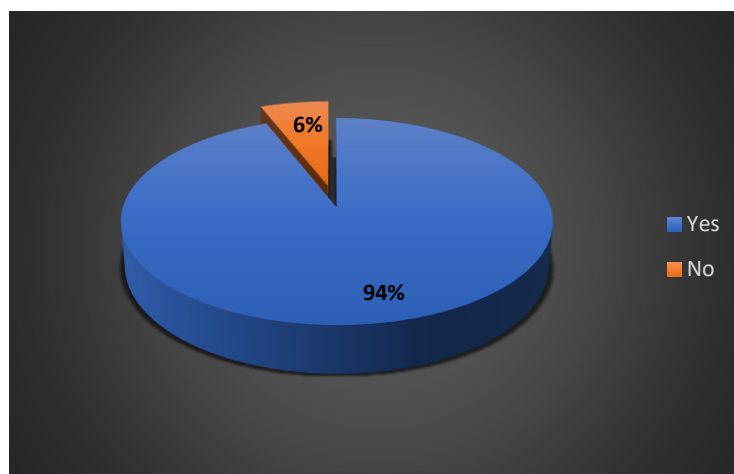


Chart 4.6.4 (i) – MOOC Learning Platforms

Are teachers aware of MOOC learning platform for English language learning?	Count of Responses	Percentage
Yes	284	94%
No	18	6%

Table 4.6.4 (i) – MOOC Learning Platforms

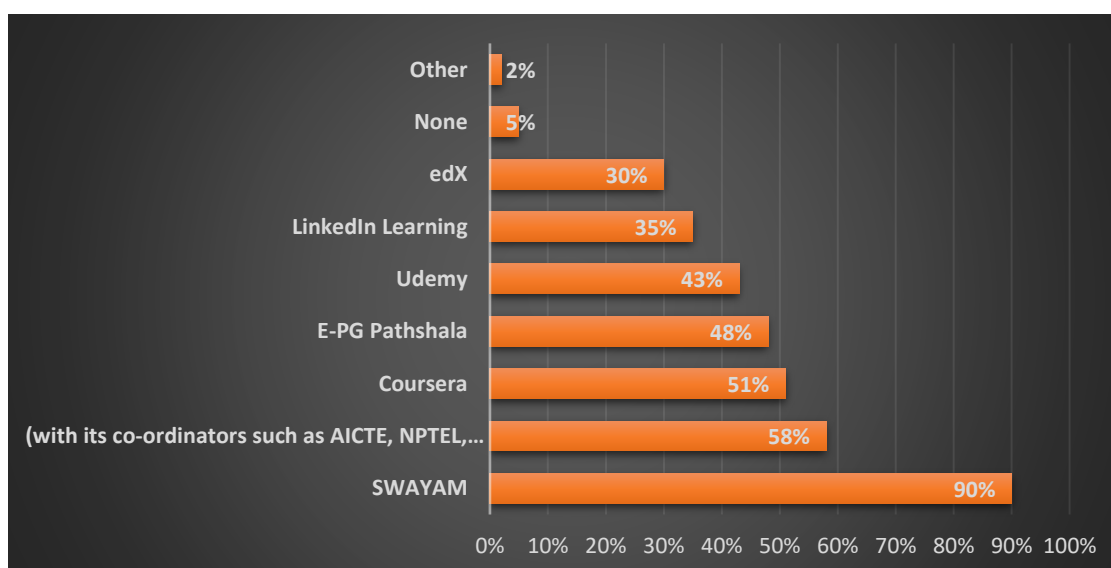


Chart 4.6.4 (ii) – List of MOOC Learning Platforms

List of MOOC learning platforms teachers are aware of for learning English Language.	Percentage
SWAYAM	90%
With its co-ordinators such as AICTE, NIOS, NPTEL, ARPIT, NCERT and IGNOU	58%
Coursera	51%
E-PG Pathshala	48%
Udemy	43%
LinkedIn Learning	35%
edX	30%
None	5%
Other	2%

Table 4.6.4 (ii) – List of MOOC Learning Platforms

A noteworthy 94% of teachers exhibit awareness of MOOC learning, with the majority familiarizing themselves with SWAYAM platforms and their associated coordinators, including ARPIT, NIOS, NPTEL, AICTE, NCERT, and IGNOU. Consequently, a substantial proportion of teachers demonstrate awareness of various MOOC learning platforms because, “MOOC is designed for in theory unlimited number of participants. This means that the course is designed such that the efforts of all services do not increase significantly as the number of participants increases” (Banwari 404). It is worth highlighting that a mere 5% of respondents report a lack of awareness regarding any MOOC platform. This underscores the widespread recognition and familiarity among educators with Massive Open Online Course platforms.

i) **Rural & Urban**

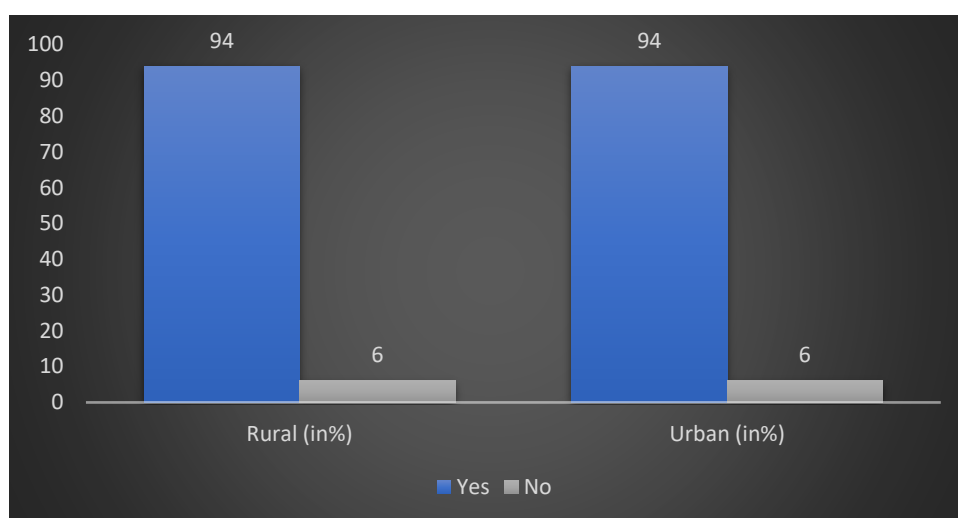


Chart 4.6.4 (i) -A – MOOC Learning Platforms – Rural and Urban

Are teachers aware of any MOOC learning platform for English language learning?	Rural (in%)	Urban (in%)
Yes	94	94
No	6	6

Table 4.6.4 (i) -A – MOOC Learning Platforms – Rural and Urban

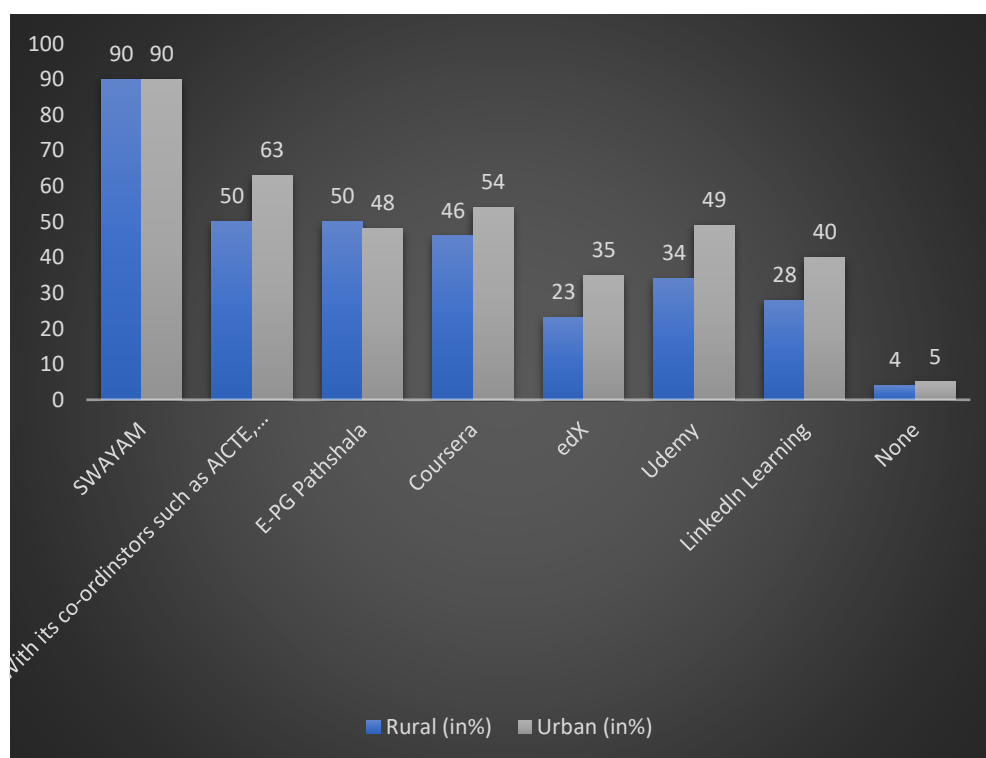


Chart 4.6.4 (ii)-A – List of MOOC Learning Platforms – Rural and Urban

List of MOOC learning platforms teachers are aware of for learning English Language.	Rural (in%)	Urban (in%)
SWAYAM	90	90
With its co-ordinators such as AICTE, NPTEL, NIOS, ARPIT, NCERT, and IGNOU	50	63
E-PG Pathshala	50	48
Coursera	46	54
Udemy	34	49
LinkedIn Learning	28	40
edX	23	35

Table 4.6.4 (ii)-A – List of MOOC Learning Platforms - Rural and Urban

ii) Age Wise Distribution

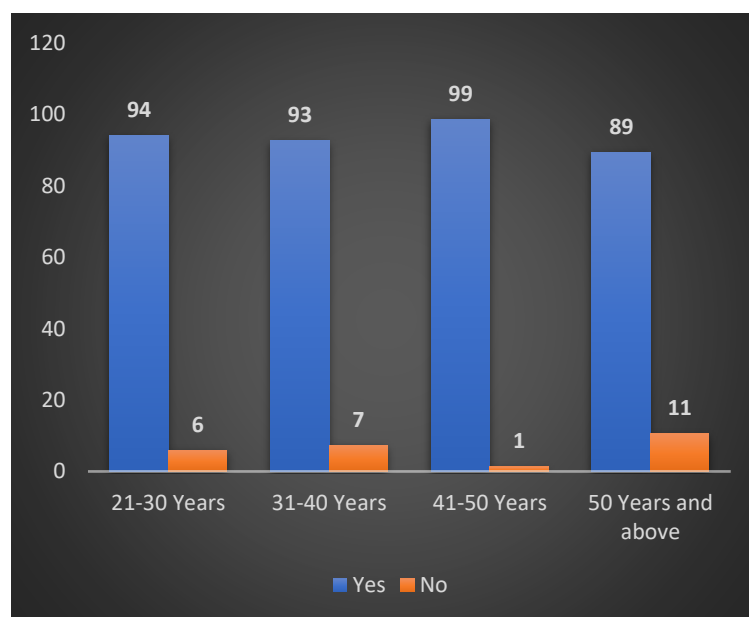


Chart 4.6.4 (i)-B – MOOC Learning Platforms – Age

Are teachers aware of any MOOC learning platform for English language learning?	21-30 Years	31-40 Years	41-50 Years	50 Years +
Yes	94	93	99	89
No	6	7	1	11

Table 4.6.4 (i)-B – MOOC Learning Platforms – Age

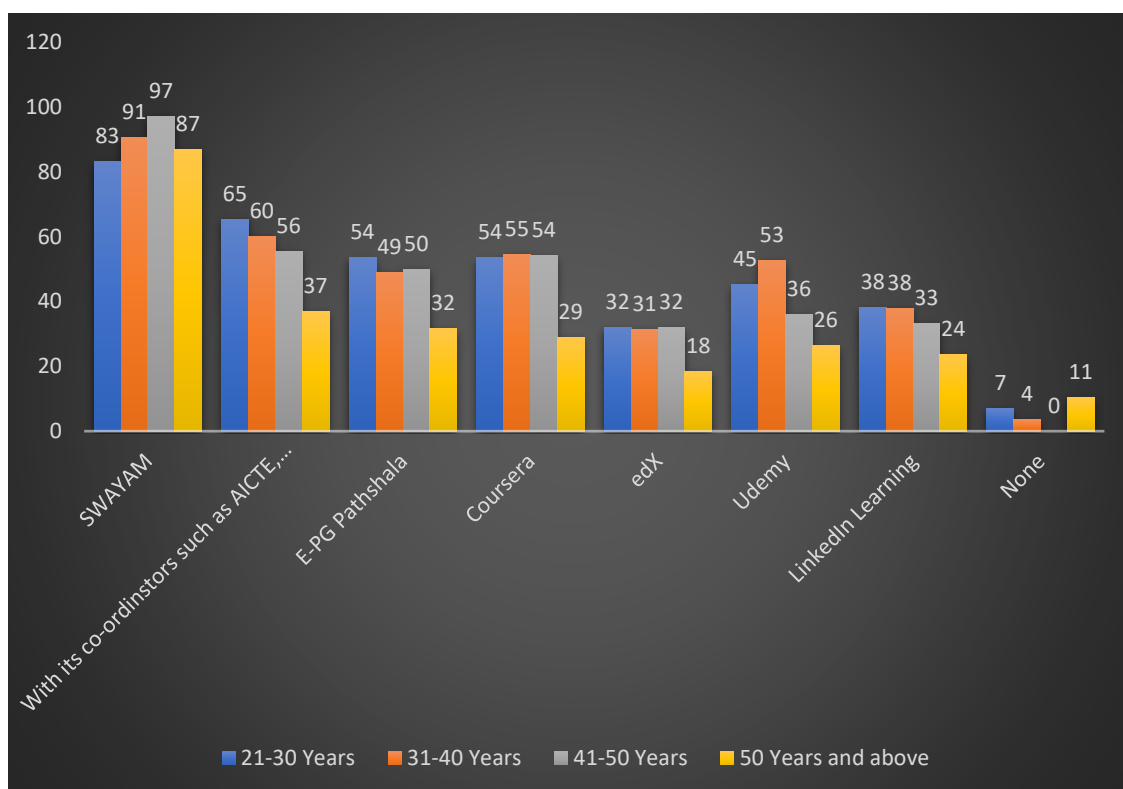


Chart 4.6.4 (ii)-B – List of MOOC Learning Platforms – Age

List of MOOC learning platforms teachers are aware of for learning English Language.	21-30 Years	31-40 Years	41-50 Years	50 Years +
SWAYAM	83	91	97	87
With its co-ordinators such as AICTE, NPTEL, NIOS, ARPIT, NCERT, and IGNOU	65	60	56	37
E-PG Pathshala	54	49	50	32
Coursera	54	55	54	29
Udemy	45	53	36	26
edX	32	31	32	18

Table 4.6.4 (ii)-B – List of MOOC Learning Platforms – Age

iii) Experience Wise Distribution

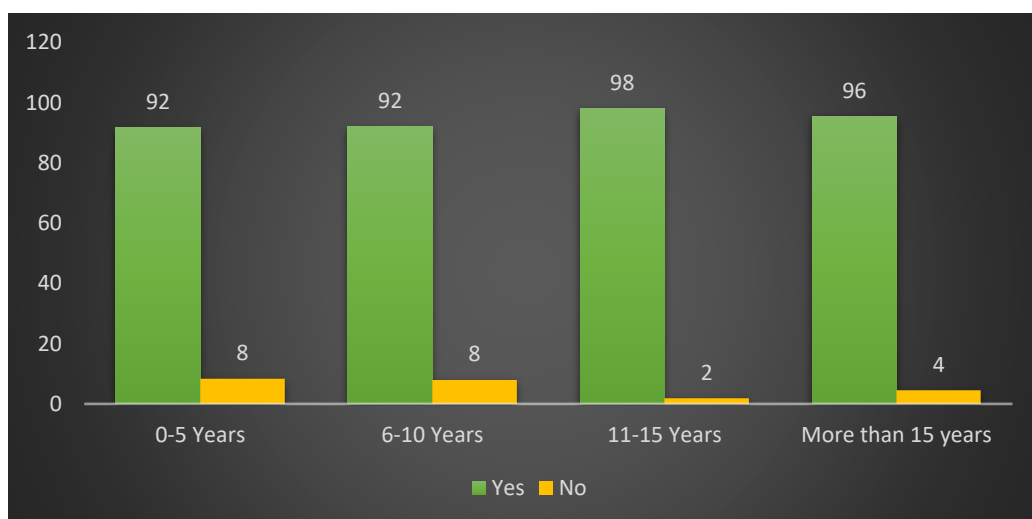


Chart 4.6.4 (i)-C – MOOC Learning Platforms – Experience

Are teachers aware of any MOOC learning platform for English language learning?	0-5 Years	6-10 Years	11-15 Years
Yes	92	92	98
No	8	8	2

Table 4.6.4 (i)-C - MOOC Learning Platforms - Experience

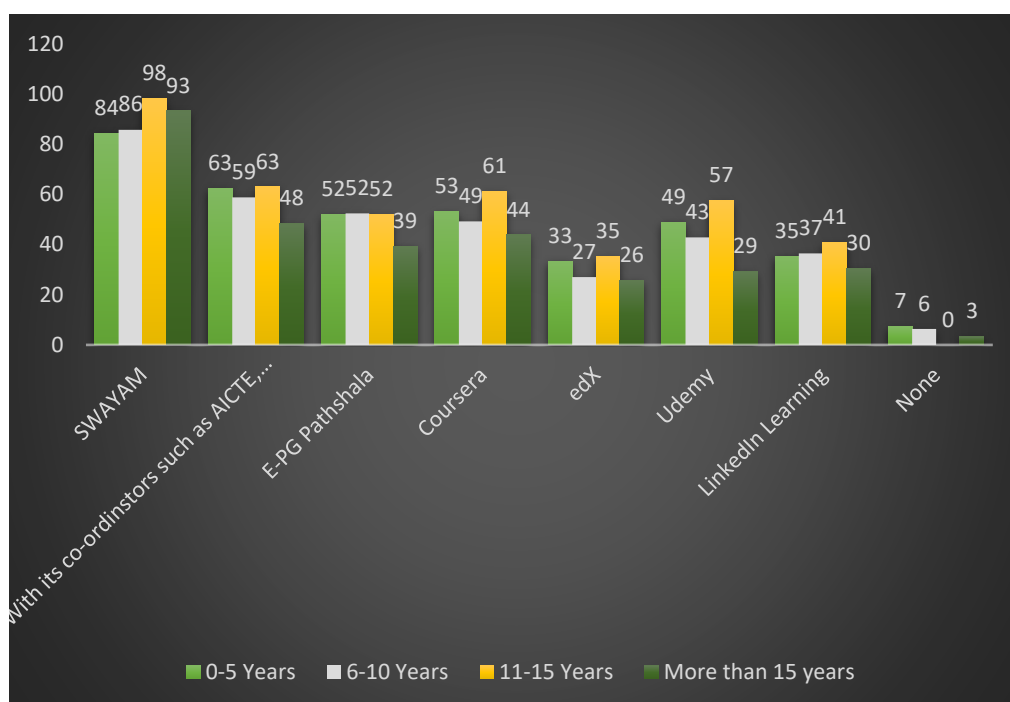


Chart 4.6.4 (ii)-C – List of MOOC Learning Platforms – Experience

List of MOOC learning platforms teachers are aware of for learning English Language.	0-5 Years	6-10 Years	11-15 Years	15 Years +
SWAYAM	84	86	98	93
With its co-Ordinator such as AICTE, NPTEL, NIOS, ARPIT, NCERT, and IGNOU	63	59	63	48
Coursera	53	49	61	44
E-PG Pathshala	52	52	52	39
Udemy	49	43	57	29
LinkedIn Learning	35	37	41	30
edX	33	27	35	26
None	7	6	0	03

Table 4.6.4 (ii)-C – List of MOOC Learning Platforms – Experience

In both urban and rural settings, a significant majority of teachers demonstrate awareness of MOOC learning. Notably, the most widely recognized MOOC platform in both urban and rural areas is SWAYAM, closely followed by its coordinators. When considering age and experience demographics, a substantial portion of teachers across different age groups and experience levels exhibit awareness of MOOC platforms. SWAYAM emerges as the predominant MOOC platform, indicating that a considerable number of teachers are well-informed about Massive Open Online Course platforms tailored for English Language Learning (ELLs).

4.6.5 MOOC Learning for Students

- i) Do teachers promote students to enrol in MOOC courses for learning of English language?**
- ii) How many students enrol themselves in MOOC learning programs for English language learning?**

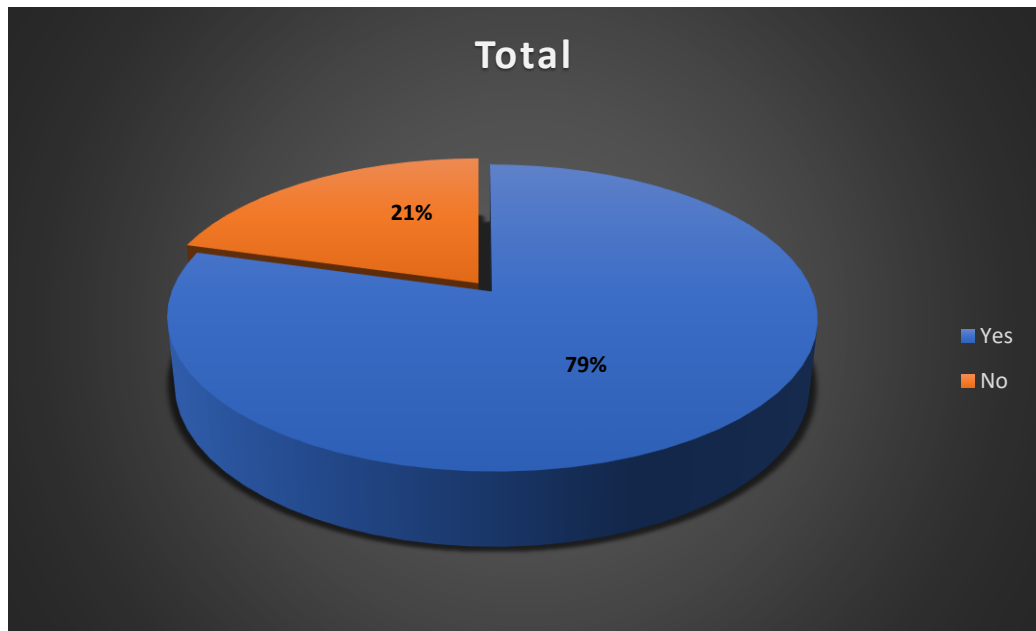


Chart 4.6.5 (i) – MOOC Learning for Students

Do teachers promote students to enrol in MOOC courses ?	Count of Responses	Percentage
Yes	239	79%
No	63	21%

Table 4.6.5 (i) – MOOC Learning for Students

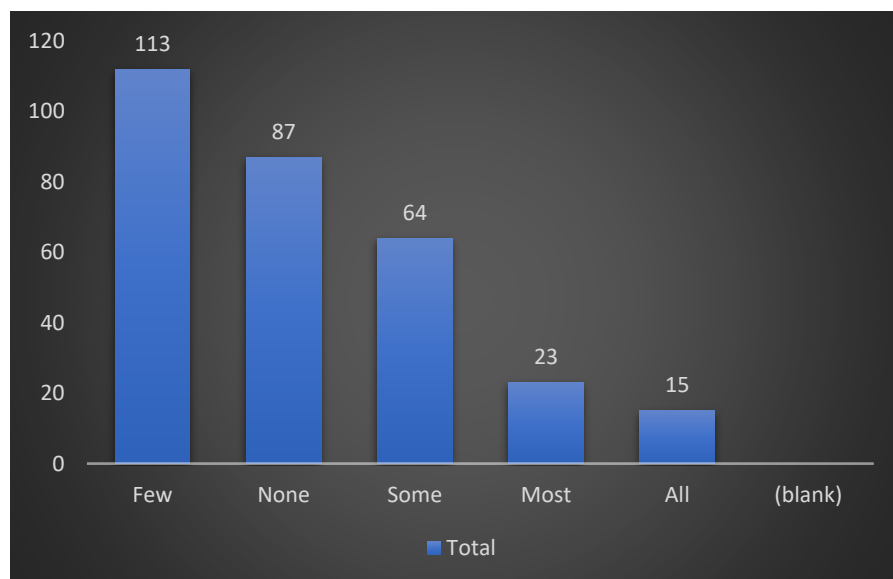


Chart 4.6.5 (ii) – MOOC Learning for Students

How many students enrol themselves in MOOC learning programs?	Count of Responses	Percentage
Few	113	37%
None	87	29%
Some	64	21%
Most	23	8%
All	15	5%

Table 4.6.5 (ii) – MOOC Learning for Students

While 79% of respondents actively encourage MOOC learning among their students, only a mere 5% of teachers report that all their students have enrolled in MOOC courses. A significant majority of respondents indicate that either none or only a few of their students have taken the initiative to enrol in MOOC learning. Consequently, the enrolment rate for Massive Open Online Courses (MOOCs) in English Language Learning (ELLS) remains notably low in Gujarat. This suggests a gap between promotion efforts and actual student participation, signalling potential challenges or barriers in the adoption of MOOCs for language education in the region.

i) Rural and Urban

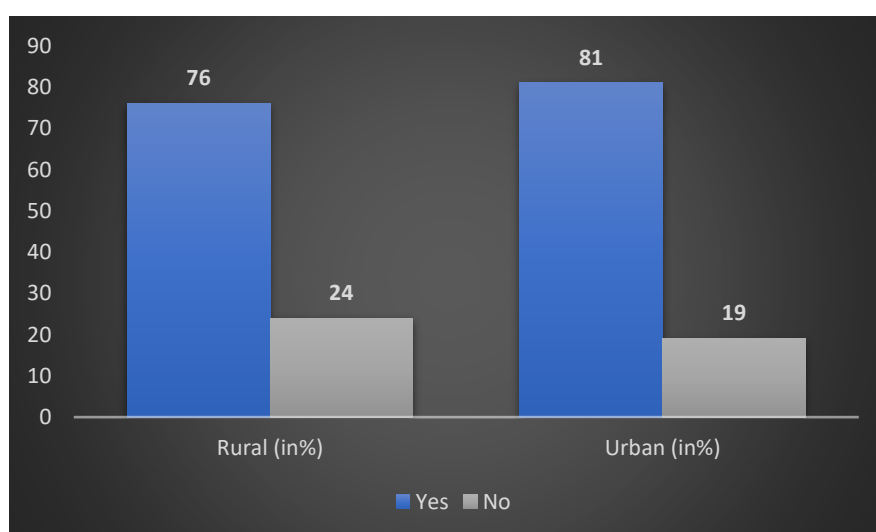


Chart 4.6.5 (i) -A – MOOC Learning for Students – Rural and Urban

Do teachers promote students to enrol in MOOC courses ?	Rural (in%)	Urban (in%)
Yes	76	81
No	24	19

Table 4.6.5 (i) A – MOOC Learning for Students – Rural and Urban

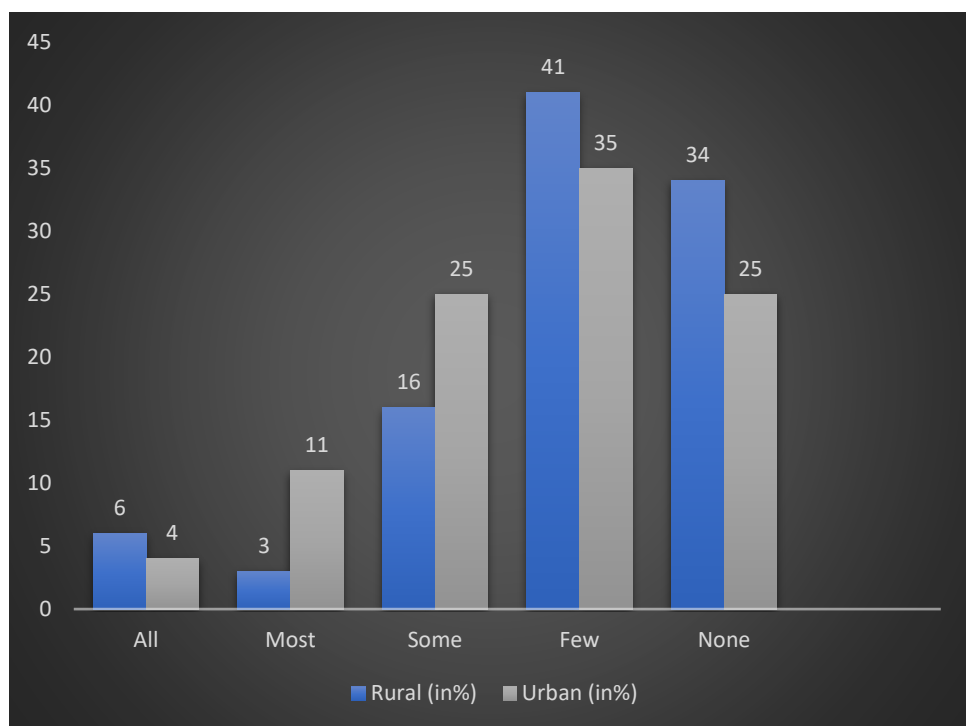


Chart 4.6.5 (ii) A – MOOC Learning for Students – Rural and Urban

How many students enrol themselves in MOOC learning programs?	Rural (in%)	Urban (in%)
All	6	4
Most	3	11
Some	16	25
Few	41	35
None	34	25

Table 4.6.5 (ii) - A – MOOC Learning for Students – Rural and Urban

ii) Age Wise Distribution

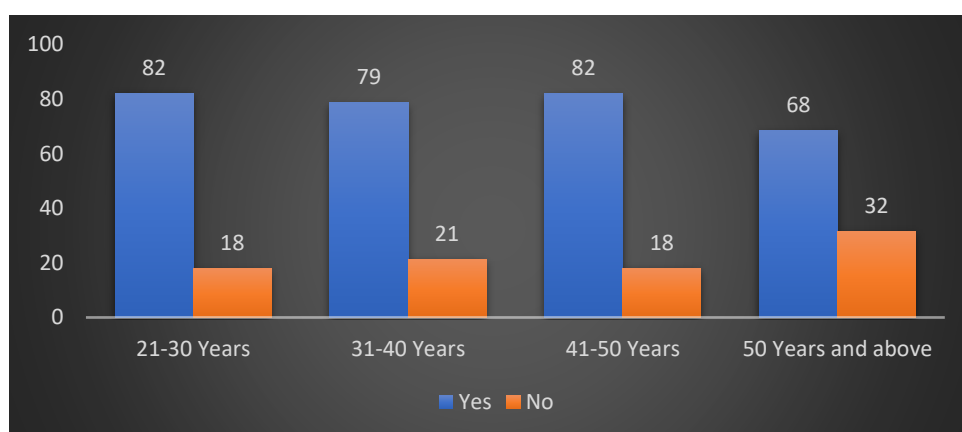


Chart 4.6.5 (i) B – MOOC Learning for Students –Age

Do teachers promote students to enrol in MOOC courses ?	21-30 Years	31-40 Years	41-50 Years	51 Years+
Yes	82	79	82	68
No	18	21	18	32

Table 4.6.5(i) B – MOOC Learning for Students – Age

iii) Experience Wise Distribution

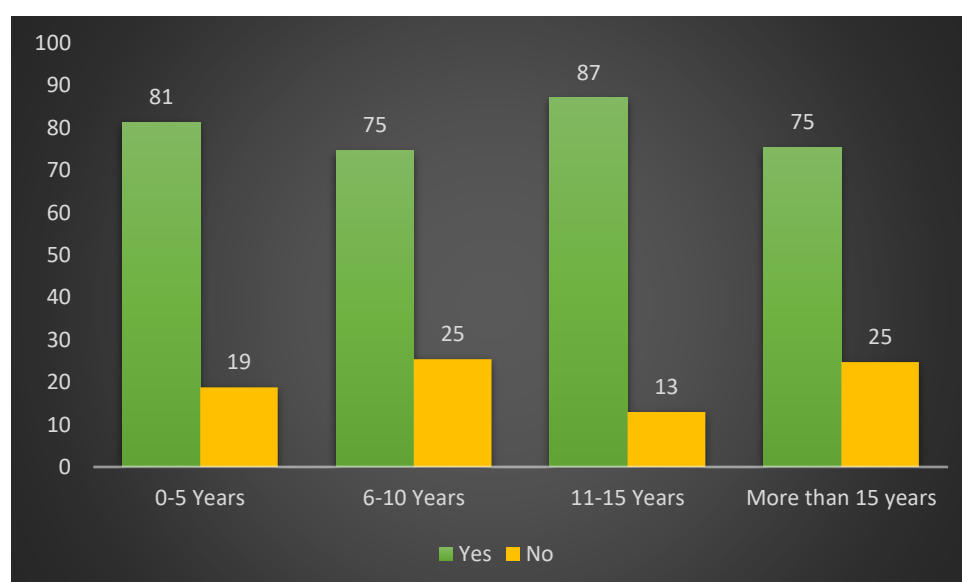


Chart 4.6.5 (i) C – MOOC Learning for Students – Experience

Do teachers promote students to enrol in MOOC courses ?	0-5 Years	6-10 Years	11-15 Years	15 years+
Yes	81	75	87	75
No	19	25	13	25

Table 4.6.5 (i) C – MOOC Learning for Students – Experience

Based on feedback from teachers across different regions and age groups, there is a consistent effort to promote Massive Open Online Course (MOOC) learning among students. Despite these efforts, only a minimal number of students, regardless of their geographical location, have enrolled in MOOC classes. According to a significant portion of respondents, none of their students have registered for MOOC learning, while a small percentage report that all of their students have done so.

The findings underscore a notable trend of low MOOC registrations for English language learning in Gujarat. This phenomenon may be attributed to several factors, including a lack of awareness among students regarding available courses and the potential benefits of engaging in MOOC learning.

4.7 Qualitative Data Analysis

To gain a deeper understanding of teachers' perceptions of mobile learning, interviews were conducted with 10 teachers from various colleges and universities in Gujarat. The interviews were open-ended and semi-structured, aiming for a comprehensive exploration of the research. The interview questions were formulated to cover key aspects:

1. What is the teachers' perception of teaching and learning the English language using digital devices, and which digital devices and mediums do they commonly employ?
2. How do teachers incorporate technology into English language teaching? Do digital libraries play a significant role in mobile learning?

3. Has the pandemic lockdown changed teachers' perception toward online teaching patterns and teaching with mobile phones? How was online teaching and learning with mobile phones different for teachers before the pandemic?
4. What is the significant difference between mobile and traditional learning for English language learning?
5. How should English language learning activities with mobile technologies be designed to support innovative educational practices, integrate with broader educational scenarios, and improve language skills?
6. What are the advantages and challenges of teaching the English language with mobile phones?
7. What is the student's behaviour towards the usage of mobile phones for learning the English language? Can mobile learning classes motivate students' engagement in class discussions?
8. Which digital libraries do teachers, and their students commonly access for English language learning?
9. What are the teachers' suggestions on mobile education for English language learning, the ongoing trends, and their impact?

The analysis of the study, based on responses from the interviewees, is presented below.

1. What is the teachers' perception of teaching and learning the English language using digital devices, and which digital devices and mediums do they commonly employ?

Effective English language education requires a thoughtful integration of various teaching methods. Research indicates that the incorporation of technology and digital devices enhances students' skills, provides learning opportunities, and fosters enthusiasm among learners. Digital tools play a pivotal role in making English language learning more accessible, diverse, and engaging.

Modern technology, particularly the internet, offers a vast array of study materials, facilitating skill development across all modules of the English

language. Devices such as mobile phones, laptops, and computers, combined with internet connectivity, empower learners of all ages to acquire language proficiency without additional expenses, allowing flexibility around their existing commitments.

The principle of equal access to education is fundamental, and digital devices, especially mobile phones, have the potential to promote educational equality by delivering quality education to all learners. However, findings suggest a prevalent preference for physical classrooms, even though technology can significantly enhance accessibility and educational quality.

While respondents express a preference for digital tools in smaller courses and language learning, mainstream education sees greater acceptance of a blended learning approach. Teachers advocate for a combination of face-to-face and technological elements, emphasizing that this approach yields superior outcomes, fosters interactive classrooms, enhances student participation, and allows for personalized attention.

Education extends beyond knowledge acquisition, aiming for holistic development. Peer interaction is deemed crucial for learners, necessitating course designs that prioritize collaborative learning. As technology advances, incorporating digital tools becomes nearly unavoidable. Still, their usage should be judicious, considering potential distractions, prompting the need for a curriculum that minimizes these distractions.

In conclusion, the findings suggest that for mainstream education, a blended approach involving both face-to-face interaction and digital tools is preferable. However, for smaller-paced courses and language learning, digital devices prove to be highly effective. The potential for English language learning with digital devices is evident, provided their use aligns with the educational goals and minimizes distractions.

Commonly Used Digital Devices by Teachers:

- **Mobile Phones:** Widely preferred for their accessibility, convenience, and portability.
- **Laptops:** Valued for wireless capabilities, storage capacity, and suitability for presentations.

- **Desktop Computers:** Some teachers prefer the comfort of using desktop computers.
- **Flash Drives:** Compact and portable, allowing access to various study materials.
- **Projectors:** Commonly used for larger screen sizes in classrooms and presentations.
- **Tablets/iPads:** Providing a middle ground between mobile phones and laptops.
- **Kindle/ e-book Reader:** Common but effective for specific teaching purposes

Commonly used digital mediums:

- WhatsApp
- YouTube
- Google Meet
- Google Classroom
- Zoom
- Google Drive

While these are just a few examples, various other digital tools and platforms contribute to the rich tapestry of teaching and learning in the realm of the English language.

2. How do teachers incorporate technology into English language teaching? Do digital libraries play a significant role in mobile learning?

Technology has become an integral part of education, revolutionizing traditional teaching methods, and providing innovative tools for English Language Teaching (ELT). The ubiquitous presence of mobile phones, laptops, and tablets offers educators and students unprecedented flexibility and convenience in the learning process. Recent years have witnessed a substantial transformation in education, with technology supporting teaching and learning through online materials, social media platforms, and digital tools, fostering interactive classrooms and advancing the overall learning system, also, “Digital technologies are believed to help language teachers provide timely and relevant feedback while supporting the development of all four language skills including

listening, reading, speaking and writing” (Bui 01), as these four modules play a significant role in learning of English language.

Students today are increasingly self-reliant, utilizing mobile phones for independent learning, including understanding new meanings, refining pronunciation, and grasping complex concepts. In regions like Gujarat, India, while traditional methods persist as the primary approach, teachers employ simple technologies such as PowerPoint, social media, YouTube, and interactive whiteboards as supplementary tools to make a significant impact on ELT.

Effective integration of technology and digital tools involves diverse methodologies that prioritize mobility, versatility, interactivity, and expanded learning opportunities beyond the syllabus. The findings reveal common methods employed by teachers for seamless integration:

- **WhatsApp:** WhatsApp and WhatsApp groups facilitate the sharing of PDF files, YouTube video links, podcasts, audio, and content, offering flexibility to both tutors and students. This method reinforces reading skills, phonetics, exercises, and fundamental skills beyond the classroom.
- **E-mail and Social Media Platforms:** Circulation of notes, including digital textbooks, images, PDF files, or Word files. Assignment details are posted online on platforms such as WhatsApp and social media.
- **Digital Libraries and Web Resources:** Access to digital libraries and web pages for study materials, expanding the resources available to teachers and students.
- **Cloud-Based Sharing:** Tutors upload content to cloud-based drives, sharing links that can be accessed by learners at flexible timings.
- **PowerPoint Presentations:** A common method to capture students’ attention through embedded ideas, video clips, bulleted information, and graphics, enhancing engagement and participation. Students are also encouraged to present through PowerPoint on assigned topics.
- **Mobile Phones and Other Devices:** Frequent use for learning pronunciation, finding meanings, reading blogs, and watching

educational videos. Laptops, tablets, and desktops are also utilized for similar functions.

- **E-book Readers:** Some ELT teachers use e-book readers to improve pronunciation and strengthen the listening module.
- **MOOC Learning:** Teachers engage with Massive Open Online Courses (MOOCs) for personal development and incorporate MOOC content into their lectures.
- **Online Classes:** Conducted through platforms like Zoom, Google Classroom, and Google Teams, primarily during the Covid outbreak, but now used occasionally to cover specific portions.

In the age of technology and web-embedded learning, digital libraries emerge as a significant asset for both tutors and learners. “A digital library is an organised collection of digital objects including text, images, video and audio along with associated services, where the information is stored in digital formats and accessible over a network” (Patnaik, 56), digital libraries provide access to a plethora of learning resources, including e-books, journals, articles, video and audio lectures, theses, and question papers. This convenient access to information is particularly beneficial for both teachers and students, eliminating the need to carry heavy physical books and allowing easy online access.

Digital libraries, such as the National Digital Library of India, JSTOR, Internet Archive Books, The British Library, and N-List, play a pivotal role in mobile learning. Teachers and students frequently access online books through mobile phones, laptops, and computers, leveraging the flexibility and convenience offered by digital libraries. While the tactile experience of physical books remains unparalleled, digital libraries emerge as a preferred option due to their accessibility and convenience, saving time and facilitating easy retrieval of resources.

In conclusion, the integration of technology and digital tools in English language learning has evolved into a dynamic paradigm, offering enhanced flexibility, engagement, and accessibility. As technology continues to advance, educators must judiciously utilize these tools to cultivate an enriched and interactive learning environment.

3. Has the pandemic lockdown changed teachers' perception toward online teaching patterns and teaching with mobile phones? How was online teaching and learning with mobile phones different for teachers before the pandemic?

The COVID-19 pandemic has played a pivotal role in reshaping teachers' attitudes towards mobile and online learning. Before the pandemic, many educators were unfamiliar with the benefits of digital tools and mobile learning. However, during the enforced lockdown, teachers were compelled to adopt online modes for teaching, utilizing mobile phones and laptops to explore new teaching methods, digital libraries, MOOC platforms, and other digital aids. This unexpected shift prompted many teachers to become more comfortable with digital resources and technologies.

While the pandemic highlighted the potential of mobile and online learning, it also revealed the need for a well-designed curriculum tailored to these modes of education. The abrupt school closures during the COVID-19 outbreak exposed inadequacies in the curriculum, impacting students' performance in theoretical subjects during examinations. Respondents stressed the importance of a properly designed course structure for effective online and mobile learning. Some participants suggested providing teachers with training for online learning and digital proficiency to enhance both teaching and learning experiences.

Teachers who were initially less tech-savvy had to invest considerable effort in digital teaching and learning during the pandemic. Despite the reopening of schools, a shift towards blended learning is evident. While video conferencing is used less for regular teaching, online seminars and workshops continue, demonstrating the sustained use of digital tools and online libraries.

Post-COVID-19, the potential of mobile learning is acknowledged, but educators emphasize the creation of personalized video lectures for more effective results. Sharing video links, especially with teachers' self-created content, enhances students' understanding of various topics. Some teachers contend that while mobile learning is suitable for language teaching and basic concepts, traditional face-to-face methods are indispensable for theoretical

subjects requiring in-depth knowledge, such as literature or practical aspects of any subject. The consensus is that a blend of mobile learning with traditional methods is the most effective approach for mainstream education.

Before the pandemic, teachers harboured negative perceptions about mobile learning, viewing it as potentially detrimental to education. However, the experience of using online modes and mobile phones during the lockdown altered their perceptions. Teachers discovered the advantages of Google Drive and Cloud in education, game-based learning, digital learning apps, and other innovative tools that enhance learning convenience and depth. Overall, teachers now perceive virtual teaching positively, considering it a valuable substitute for traditional learning that bridges learning gaps.

WhatsApp and Zoom emerged as the most widely used platforms during the COVID-19 lockdown. While teachers experienced challenges such as network errors and technological drawbacks, they also learned about new apps, digital libraries, MOOC courses, game-based learning, and video conferencing tools that made learning more accessible and engaging. The mixed experiences underscore that mobile and virtual learning, while offering numerous advantages, also present challenges, and technological obstacles.

In conclusion, the findings reveal a significant shift in teachers' perceptions towards mobile and online learning post-COVID-19. The unexpected adoption of digital tools during the pandemic has broadened educators' understanding of the diverse benefits and challenges associated with these modes of education, paving the way for a more nuanced and informed approach to integrating technology in the classroom.

4. What is the significant difference between mobile and traditional learning for English language learning?

Learning is a crucial aspect of personal growth and development. Language learning, in particular, plays a vital role, enabling individuals to express thoughts, feelings, and emotions. Proficiency in the English language, in particular, enhances confidence and adds value when navigating job interviews. Teaching and learning methods for English vary, with traditional classroom

learning being a longstanding approach, and technology-based learning, including mobile learning, representing a more contemporary option.

Language learning through mobile phones is known as Mobile Assisted Language Learning, while traditional learning is often referred to as face-to-face learning. The traditional method, or classroom learning, has been practised for centuries. In this approach, teachers deliver the designated syllabus to students physically present in the class. However, drawbacks include missed sessions for students unable to attend, as traditional classrooms have limitations on attendance. Mobile learning, on the other hand, is web-based, allowing learners from anywhere globally to participate and enrol in courses provided by various colleges or universities.

Several differences exist between traditional teaching methods and mobile learning in English language education, influencing the outcomes for students:

- Mobile learning offers flexibility, allowing learners to study at any time and from anywhere, depending on their own pace. In contrast, traditional learning is less flexible, with classes held at fixed locations and times.
- Mobile learning is more student-centric, enabling independent learning. Traditional learning tends to be more teacher-centric, requiring students to follow a fixed pace.
- While mobile learning may have limited interaction, traditional learning fosters more social interaction.
- Network and technological errors can pose challenges in mobile learning.
- Mobile learning reaches learners, tutors, and researchers more effectively.
- Mobile learning contributes to promoting equality in education.
- Traditional learning typically adheres to a formal setting, while mobile learning may or may not adopt a formal structure.

Despite these differences, the potential benefits of both methods can complement each other and fill gaps in the learning process. Mobile learning can serve as a valuable substitute in emergencies, such as during pandemics.

Combining both traditional and mobile learning methods can enhance the learning experience, providing interactive sessions, effective instructions, flexibility, a wide array of learning resources, and increased student participation. Ultimately, a harmonious integration of traditional and mobile learning methods can lead to more efficient and comprehensive language learning outcomes.

5. How should English language learning activities with mobile technologies be designed to support innovative educational practices, integrate with broader educational scenarios, and for improve language skills?

“Learning is a process of achieving knowledge, skill, and performance” (Elkafi et al. 76). The design of a course and curriculum plays a pivotal role in the learning process, determining the methodology and overall efficiency of the educational experience. In the contemporary context, digital technologies such as laptops, desktops, tablets, and mobile phones with internet access have become ubiquitous and integral components of daily life. Mobile phones, in particular, offer a versatile tool for various aspects of learning, including delivering lectures, accessing study materials, and language learning.

In a classroom setting, integrating mobile learning as an official tool could contribute to more effective results and improved outcomes. Allowing students the flexibility to use mobile phones in classrooms can benefit both educators and learners. For instance, teachers can promptly share links, audio, videos, and images during lectures, fostering increased student participation and making learning more engaging. While the usage of social media should be monitored, incorporating online materials and multimedia links can enhance the learning experience. Post-class, sharing resources that students can access at their convenience supports a personalized and flexible learning approach, aligning with the flipped learning method for English language classrooms.

Gamification is another strategy that can be incorporated into courseware to facilitate easier and more effective learning outcomes. Numerous online applications employ gaming methods to make language learning attractive and enjoyable. Examples include games like Game Scape, Word Stacks, and Lingio,

which go beyond rote memorization and provide an interactive learning experience.

Including courseware that incorporates audio and video elements, reading online content such as blogs, forums, podcasts, vlogs, e-book readers, and visual storytelling through cameras or online diary writing can enhance language skills across all four language modules. Allowing the use of mobile devices for group activities, such as discussions related to language learning, opens up opportunities for collaborative learning. Applications that enable students to record and share speeches, arguments, and discussions contribute to vocabulary enrichment and fluency development.

Enriching classrooms with authenticated online applications, resources, and websites dedicated to English language learning can personalize the learning experience, fostering individuality among learners and encouraging lifelong language learning. The use of mobile phones enables students to engage with a broader range of learning materials, developing their skill sets with access to resources from around the world.

6. What are the advantages and challenges of teaching the English language with mobile phones?

Web-based learning using mobile phones may have significant results in English language learning. It is very prevalent for tutors and learners to learn the English language using mobile phones in the current era. There are many advantages of mobile phones for English language learning pointed out by the respondents which makes teaching and learning easier.

- a.** A wireless and portable ubiquitous device that promotes flexibility and learning can take place anytime and anywhere.
- b.** It has advanced technological features that make learning convenient, sharpens the skills of learners and is embedded with more learning features.
- c.** Teaching and learning could be done with various methodologies using mobile devices.

- d.** A wide variety of study materials can be accessed with few clicks, availability of digital libraries makes learning easier and more convenient.
- e.** Audio-video functions catch the attention of learners and have more retention power.
- f.** Teacher shares MOOC content and MOOC videos with students, YouTube videos, and other learning resources are available online hence, students have many sources of learning, and they have a choice to learn from any source which makes learning easier and more impactful for them. They always have access to study materials.
- g.** Mobile phones can be used as an aid that could be used with traditional classroom methods.
- h.** Many educational applications and game-based learning are available online that can be accessed through mobile phones and are beneficial.
- i.** Promotes equality in education.
- j.** Videos and audio can be played and paused several times.
- k.** No age and distance bars.
- l.** It promotes collaborative as well as independent learning.
- m.** English language could be learnt with jobs and other educational qualifications.

Every coin has two sides, and every learning method has pros and cons. With advantages, many disadvantages have also been pointed out as per the findings. The disadvantages of using mobile phones for language learning are as follows:

- a.** The small screen size is a major issue with mobile phone learning.
- b.** There is limited storage, and sometimes audios and videos must be recycled due to the space limit.
- c.** Network issue, as the internet works on a network, it might hamper anytime.
- d.** More focus should be given to the designing of the curriculum as it may distract learners very easily with other features and functions.
- e.** It might be difficult to keep students attentive throughout the lecture, though if a mobile phone is used as a learning aid with the traditional method, it keeps students more attentive.

- f. Physical presence and face-to-face lectures are important for better delivery and a better understanding of the lecture and to bring out more positive outcomes.
- g. Technological adeptness and tech-savvy skills are important for learning with a mobile phone.
- h. It might make learners lazy.
- i. Using mobile phones for long hours harms the eyes.
- j. Peer interaction is an important aspect of growth and development, in mobile learning it is not much encouraged. Hence peer interaction should be encouraged for mobile learning as well.

Hence, to get more positive outcomes and results with mobile learning, the design of the coursework should be taken care of. There might be network and technological problems which could also be solved with proper designing of applications and curriculum as one can download a video several times and can recycle it when not needed can overcome the problems related to the network and storage. The proper design can serve the better purpose of learning a language with mobile phones and enhance learning.

7. What is the student's behaviour towards the usage of mobile phones for learning the English language? Can mobile learning classes motivate students' engagement in class discussions?

Mobile devices with smart functions and internet facilities are available to a large section of young learners in higher education. Nowadays, people are frequently seen checking their phones. Mobile phones play a crucial role and have the potential to conduct language teaching classes. Students spontaneously use mobile phones for learning meanings, synonyms, pronunciation, or accessing learning materials. Young learners prefer accessing digital libraries over going to the physical library. Learners of this generation keep more PDF files than books, as it is convenient and lightweight, allowing them to carry their study materials wherever they go. Instead of taking notes, learners prefer to take pictures in class, appreciating the idea of mobile learning.

Tech-savvy learners keep themselves updated about new functions and available applications. With mobile phones and applications, learners plan and save their learning schedules on online applications, finding learning more productive and enhancing. Mobile phones contribute to enriching their vocabulary acquisition, with always-available dictionaries, search engines, and libraries. Students are comfortable using mobile phones for language learning, typing a word on a search engine and getting millions of options with just one click. They can choose their preferred learning source, be it subtitles, audio, or videos, which they keep downloaded on their mobile phones.

Learners gather ideas about the topic from online sources and actively participate in class. During classroom exercises and activities, they utilize their mobile phones to understand the topic and fulfil exercise requirements. Mobile phones keep students engaged in classroom exercises, increasing their participation. For classroom discussions, they delve into details from online study materials and libraries, participating enthusiastically. In group activities, assignments, and exercises, they find information through their mobile phones and online libraries, enhancing their classroom participation, peer interaction, and interaction with teachers. This, in turn, boosts their confidence and motivation.

8. Which digital libraries do teachers, and their students commonly access for English language learning?

The respondents were asked about the digital libraries that are being accessed by either them or their students. According to the findings, the following is the list of the digital libraries commonly accessed by English teachers and students in Gujarat state.

- **Anna's Archive:** It is a search engine for shadow libraries.
- **Bookfi.org:** It is a website that provides access to a large collection of books, particularly in electronic format.
- **British Council:** It offers a variety of resources, including digital content related to English language learning and cultural exchange.
- **Directory of Open Access Books (DOAB):** It provides access to a wide range of academic books that are available in open access.

- **EBSCO:** It is a provider of research databases, e-journals, and other digital resources for academic and research purposes.
- **Internet Archive:** It is a non-profit digital library offering free universal access to a vast collection of digital content, including books, websites, and multimedia.
- **Journal Storage (JSTOR):** JSTOR is a digital library that provides access to academic journals, books, and primary source materials.
- **Library Genesis (Libgen):** Libgen is a website that provides free access to a vast collection of books, especially in the scientific and technical fields.
- **National Digital Library of India:** A platform providing access to a wide variety of digital educational resources.
- **N-LIST (National Library and Information Services Infrastructure for Scholarly Content):** N-LIST provides access to e-resources to colleges and other educational institutions.
- **Open Library:** It is an initiative that aims to make all published works of humankind accessible to everyone.
- **Project Gutenberg:** It offers over 60,000 free eBooks, including many classic literary works.
- **ProQuest:** ProQuest provides access to a variety of databases, archives, and collections for research and educational purposes.
- **Universal Digital Library:** A digital library initiative to make cultural and historical works available to the public.
- **Wiley Online Library:** It is a collection of online resources covering life, health, and physical sciences, as well as social science and the humanities.
- **World Digital Library:** A project by UNESCO and the Library of Congress that provides access to significant primary materials from countries and cultures around the world.
- **Z-Library:** Z-Library is an online platform that provides access to a vast collection of e-books.
- **Zendy:** It provides easy access to over 39 million scientific journals, e-books, and magazines with no download limits.

Several other platforms share reading materials, such as books and journals. While these platforms may not be called exactly libraries, they have similar functions. A few examples of such platforms are as follows:

- Academia.edu
- PDF Drive
- Project Muse
- Shodhganga

These platforms collectively offer a rich array of resources for both English teachers and students, covering various subjects and disciplines.

9. What are the teachers' suggestions on mobile education for English language learning, the ongoing trends and impact?

Mobile learning is both a novel and common digital method for teaching and learning the English language. There is a vast scope for learning English with mobile phones and designing a curriculum for English Language Teaching (ELT). In a world becoming more technologically advanced, especially after the COVID-19 pandemic, Tech-Ed has gained popularity, introduced new content and provided online education. The use of mobile phones for English language learning is indispensable. Moreover, the specific use of digital technologies, especially mobile phones, can be more helpful in advancing vocabulary, fluency, and content in the English language. Respondents, including those who frequently use mobile phones for English Language Learning (ELL), offer diverse opinions and suggestions.

Learning through digital tools like phones and tablets helps students understand concepts more clearly. Many educators and parents may not be aware of the wide variety of options available for learning English with mobile phones, such as AI chatbots, Android language apps, phone recordings, Google Translations, and Google Readings for listening modules. Teachers can share content using audio-visual methods, MOOC language learning content, YouTube channels, and game-based learning. YouTube channels with video-based content increase retention span, and game-based learning captures learners' attention, providing a wide variety of learning material and yielding productive results. The use of Massive Open Online Courses (MOOCs) could be encouraged among learners

for extra knowledge. If used wisely, all these options can fulfil language learning objectives.

Training programs for teachers and students are necessary for teaching and learning the English language with digital devices, such as mobile phones. Significant and judicious usage of mobile phones requires training for both teachers and students. The development of mobile technology is still young, so educators and learners face challenges while integrating it into the classroom. With Artificial Intelligence (AI), teachers can receive training in using digital tools and operating technologies for teaching and learning the English language. Teacher training programs should be introduced to spread awareness, set the curriculum, design courses for effective results, minimize student distraction, and encourage judicious use of mobile learning. These programs help in the effective use of mobile phones, supporting language learning and aiding students to become active learners, making learning more interactive, collaborative, and introducing soft skill programs, training, placement, and related subjects.

According to respondents, mobile learning has the potential for language learning, especially for small-paced programs, certification courses, and language learning. Mobile applications for English language learning should be designed to be easily accessible, especially for differently abled learners, and should be user-friendly. Since many rural areas face network issues, applications should be designed for downloading when in the network and revisiting them several times. Mobile learning should be integrated into mainstream platforms as a learning aid for effective results.

Language learning becomes easier with learning apps that provide more accessibility and flexibility to learners. Despite challenges in remote and rural areas, students manage to use mobile learning and prefer it. Mobile learning encourages self-paced and self-dependent learning, making classrooms more student centric. Though mobile learning for English language learning is a growing trend, it needs more awareness among parents and educators. It has the potential to improve all four modules of language learners. The primary goal of mobile learning is to make learning more convenient and accessible, bridging gaps for those facing geographical, financial, or time constraints. Knowledge

of MOOCs should be widely spread, and courses should be designed for rural students.

The Government tablet scheme should be promoted to spread awareness among learners. Students should have access to more digital tablets/mobile phones at a minimal cost, with restrictions on social media platforms to minimize distractions.

Blending mobile and traditional learning produces more positive outcomes, as classroom learning increases peer interaction and teacher-student interaction. Embedding classroom learning with technical assistance makes learning interesting, effective, and convenient. Study materials should be shared with students for downloading before class, eliminating the need for internet access during learning. While mobile education for English language learning has the potential to make language learning more accessible and affordable, a blend of traditional and digital methods may yield the best outcome for all learners.

Many institutes prohibit learners from using mobile phones. Instead of banning them, institutes should teach the judicious use of mobile learning for language learning. Learners use mobile phones, but they lack guidance and awareness to use them wisely. Despite having facilities, many learners lag due to a lack of guidance. Learners should be encouraged to watch programs and use platforms that help sharpen language learning skills, such as Ted Talks. Mobile education has introduced the concept of microlearning, delivering bite-sized lessons and activities that can be completed in short periods, catering to busy learners who can fit language learning into their daily routines.

English language learning with a mobile phone should be encouraged to provide equal opportunities for students from all backgrounds. While network and financial issues persist in many rural areas of India, mobile phones still offer advantages to a large section of society. Mobile phones provide a wide variety of learning methods and materials, benefiting students and making them self-dependent, with learning becoming student centric. Numerous websites can improve students' English learning efficiency using mobile phones.

Although mobile learning is a good option for flexible learning, offering opportunities for learners from all economic and geographic sections, better use of mobile phones for English language learning requires a well-designed

curriculum, teacher training, and learner encouragement. Findings show that there are multiple ways of teaching and learning the English language with mobile phones. While online learning through mobile phones can yield fruitful results, the blended mode of learning is the most effective. Learners who cannot attend physical classrooms due to constraints can benefit from online mediums. Teachers should promote mobile learning for English language learning as a digital aid, guide students on its responsible usage, and recommend language learning platforms.

Mobile learning has the potential to revolutionize language learning, and its integration into the education system requires careful planning, awareness, and proper training for both educators and learners.

4.8 Conclusion

The majority of respondents utilize mobile phones for the teaching and learning of the English language. In rural areas, 92% of respondents primarily use mobile phones as their digital device of choice. In urban areas, laptops take the lead as the most used digital device, with 92% of respondents, while mobile phones closely follow as the second most used device, chosen by 90% of respondents. Mobile phones emerge as the top preference among teachers of all age groups, regardless of their years of experience. According to the findings, a significant number of students use mobile phones with internet connectivity, preferring to browse the web for any language-related doubts.

Various methods exist for integrating mobile technology into education and language learning, including using mobile phones as digital aids, leveraging digital media platforms, and engaging in online teaching and learning through video conferencing. According to the findings, the majority of respondents believe that combining mobile phones as a teaching aid with traditional learning methods yields the best outcomes. However, teaching and learning solely through mobile phones are seen as a more accessible option, especially beneficial for small-paced courses like language learning. This approach can particularly assist learners who may lack the resources for traditional physical classes.

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