






The future of language education: Integrating smartphones into the curriculum

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Abstract: As digital technology increasingly integrates into learning environments, smartphones' potential to facilitate language learning has become a significant area of interest. This study explores students' perceptions of smartphone use in education, particularly in their respective languages, based on a survey of 540 participants from Azerbaijan. The research identifies how smartphones are used in language learning and students' perceptions regarding changes in engagement, accessibility, and overall effectiveness. Results indicate that most students recognize the value of smartphones in enhancing language learning, especially through resources or practice outside the classroom. However, the study also highlights issues related to distraction and technology equity, which could exacerbate educational inequalities. Furthermore, it identifies a critical gap in understanding effective smartphone integration into the curriculum, emphasizing the need for targeted training and clear usage guidelines. These findings suggest that while smartphones could revolutionize language education, their successful integration requires careful planning and institutional support. The study contributes to the broader debate on digital learning tools, stressing the importance of well-planned integration strategies to maximize the benefits of language education.

Keywords: Digital learning, Educational technology, Language education, Smartphones.

1. Introduction

1.1. Background and Significance

Digital technology has been developing very fast and considerably influencing most of the parts of our life, including education. Among digital tools that have recently come to the forefront in the educational landscape, smartphones represent the most versatile and widely spread devices. Their portability, connectivity, and functionality make them widely indispensable tools for modern learning, providing access to rich information and resources by students and educators (Bowles, 2024). In the context of language education, smartphones offer unique opportunities to learn immersively and interactively beyond the traditional classroom. However, despite these clear benefits, many people either underestimate or look away from the value of smartphones in education, especially concerning language learning. That is true, in particular, among the population in Azerbaijan, which generally considers smartphones and other digital tools as something distracting, not useful for educational purposes (Alberth et al., 2020). Certainly, both teachers and even students themselves understand that a smartphone in class is the main source of distraction from the educational process; they try either to minimize its use during the lesson or to eliminate it at all. This general mistrust of using smartphones as a means for learning underlay perhaps the most obvious reason why they could not be fully utilized in language learning.

Being an English language lecturer at Nakhchivan State University, I have definitely felt the hesitation to accept smartphones as a tool for teaching languages. This aspect holds very much right for the learners; teachers and parents, for that matter share similar perceptions and believe these devices to prove distraction rather than help in learning. This perception of smartphones in education has led to

concerns over lost avenues in enhancing language learning through digital tools. Today, digital literacy is a core element of being a person in the modern world, and the role of smartphones in the educational process needs to be reconsidered. With this in mind, I have conducted a study to investigate what perceptions exist among students, teachers, and parents regarding the use of smart devices for language learning in Azerbaijan. This study is aimed at analyzing the acceptance level, as well as potential benefits and challenges tied to the use of smartphones in language education. With a greater insight into these attitudes and experiences from the various groups, I should be in a better position to clearly identify the determinants of views towards smartphone integration so as to shed further light on future educational practice and policy. This research is especially important because it will bridge the gap in the present understanding with regard to digital tools in language education in Azerbaijan. Although there is a good level of global research with regard to the benefits that using smartphones for educational purposes might provide, the context within the country of Azerbaijan itself is quite irrelevant. The present study would enlighten local attitudes toward using smartphones in language learning but also add to the broader dialogue on digital education, thus bringing out its challenges and opportunities that are unique to the region. Therefore, the findings from this research could inform curriculum development, teacher training, and policy making about effective and equitable integrations of smartphones into language education.

1.2. Purpose and Structure

The main aim of this paper is to investigate the attitudes of students, teachers, and parents of students towards the use of smartphones in language education in Azerbaijan. At the turn of the 21st century, in a rapidly changing educational landscape, smartphones have emerged as potent tools that could redefine the learning experience through increased accessibility and interactive engagement. Their incorporation into the curriculum, however, is a debate, especially in places like Azerbaijan, where traditional education prevails and digital tools are taken with skepticism. This study, with the use of a very broad survey encompassing 540 participants of different backgrounds: students, teachers, and parents, evaluates the current level of acceptance of smartphones as a learning tool. This research is aimed at surfacing both the opportunities that smartphones offer in enriching language education and the challenges that may prevent their effective use. Thus, the study intends to shed light, through diverse perspectives of the identified key players, on what lies at the root of the attitudes toward smartphone use in the classroom and understand further implications for practices that are implemented in Azerbaijan.

The research seeks to answer several key questions:

- How are smartphones currently being used in language education? This question aims to map out the existing practices and applications of smartphones in the learning environment, providing a baseline understanding of their role in language education.
- What are the perceived benefits and drawbacks of using these devices in the classroom? By addressing this question, the study explores the dual nature of smartphone integration, weighing the advantages against potential challenges such as distractions and unequal access.
- How can educators and policymakers effectively integrate smartphones into the curriculum to enhance language learning outcomes? This question focuses on developing actionable strategies that can bridge the gap between the theoretical potential of smartphones and their practical application in the classroom.

In addition, apart from providing insight into the present state of smartphone use for language learning, another objective of this research will be to give practical advice to teachers and institutions. By delving deeply into the survey data, this article will provide insights on how smartphones could be better integrated into language education in Azerbaijan—considering the specific needs and concerns of students, teachers, and parents. These recommendations are useful to both improve language learning results and help foster digital literacy across the educational spectrum so that all students can have modern educational technologies.

The structure of this paper is designed to provide a comprehensive analysis of the research findings and their implications for language education in Azerbaijan. This article then proceeds, after the introduction, with a review of the current literature and practices in the use of smartphones in education, highlighting those related to language learning. The following review lays out the contextualization of the study: it presents the gaps in the current research that this study will fill. Next, a detailed description of the research methodology, including survey design, data collection processes, and analysis methods, is provided. The next section is the results section that will outline the main findings of the study, keying on the trends and patterns brought up in the data. Based on both the literature review and what the study finds, the paper will present the challenges facing integration of smartphones in the curriculum and their solutions. Finally, the paper will conclude by discussing future directions in research and practice, making recommendations for educators, policymakers, and researchers who aspire to push the boundaries in the area of language education in the digital era.

2. Literature Review

2.1. *The Role of Smartphones in Education*

Smartphones have gained importance as educational tools. The touchingly portable and connected multi-functionality of smartphones has revolutionized accessibility to learning content, making learning more accessible and personalized for students across the globe. Core studies have also shown that the use of smartphones significantly improves learning experiences since students get immediate access to information, educational applications, and online resources that can be tailor-made to individual learning needs (Bowles, 2024).

Secondly, smartphones cater to more learning needs—be they visual, auditory, or kinesthetic modes—hence serving multiple learning styles. Smartphone use in education has found great success in areas where traditional resources are scarce, so students are allowed more freedom in terms of self-directed learning as well as peer collaboration on mobile platforms. For example, Alberth, Wiramihardja, and Uden (2020) present research on the use of WhatsApp in language classrooms as a means of communication and interaction among students and teachers that is easy and popular.

Smartphones have also been used for educational purposes, enhancing the idea of blended learning whereby students can switch from one environment to the other, either online or offline. This flexibility has proven to be very useful for remote and poorly resourced areas since they would not have access to physical educational material. Other studies point to the evidence of smartphones enhancing active learning: they make students interactive, enable discussion, and prompt immediate feedback, which can improve engagement and learning outcomes (Gudmundsen, 2024).

2.2. *Smartphones in Language Learning*

The most important recent area of study is the use of smartphones in language education, more so through mobile-assisted language learning. MALL makes use of this portability together with the technological opportunities that these gadgets come along with to make it easy for language learning. With all these different facilities available, including but not limited to language-learning apps, electronic dictionaries, pronunciation guides, and interactive language games, a smartphone provides tools for a learner to practice and enhance his or her language skills. Research by Alberth et al. (2020) has shown how WhatsApp is used in the language classroom to facilitate communication and language practice. The findings of such research revealed that WhatsApp helps to create an enabling learning community in which learners could interact, share ideas, and provide feedback for peers, all of which are instrumental in language development. Besides, the multimedia nature of WhatsApp enables students to share audio, video, and text files, which indeed would be an invaluable mode for exercising different skills. Studies have been conducted since then on how smartphones can be used as tools to impact vocabulary acquisition, pronunciation, listening, and grammar. Bowles (2024) adds that through digital, self-directed vocabulary learning with smartphones, a lot more control over the pace and manner of learning is handed to the students themselves, hence contributing significantly towards memory retention. To the same effect, Gudmundsen (2024) highly underlines the use of smartphones in mediated

video language learning environments with functions such as chat for supporting and practicing newly acquired linguistic items and thereby reinforcing comprehension.

2.3. Perceptions and Attitudes Towards Smartphone Use

International research on the attitudes towards smartphones in education is mixed. The general consensus from students, teachers, and parents alike is that smartphones have their benefits and can definitely be helpful in enhancing learning experiences, particularly in language learning. Besides, students also tend to appreciate the access that smartphones bring them because the gadgets enable these students to study at their pace, but at the same time, they are enabled to use numerous other resources far from the classroom (Alberth et al., 2020).

The access and flexibility of smartphones in learning are invaluable to many students. Teachers and parents have both expressed concerns over digital distraction, in which smartphone multifunctionality may spur off-task behavior during lessons (Bowles, 2024). Furthermore, there is fear that if people rely too much on smartphones to go about their daily activities, social interaction may be minimized or important social skills developed. These international perceptions thus can be used to provide a useful framework for understanding how smartphones might be viewed in regions like Azerbaijan, where similar research is limited. The increased penetration of smartphones and high speed of digitalization in Azerbaijan mean that students and educators may be just starting to acknowledge the potential that these devices hold for learning. However, cultural attitudes toward technology and education may also influence the acceptance and integration of smartphones in the educational environment. Thus, it is of paramount importance to explore local perceptions through studies like yours for further clarification of the given context.

2.4. Challenges in Smartphone Integration

Using smartphones in curricula at all levels of learning can face a number of challenges that would have to be overcome to fully realize their potential. By far, the most important among them is digital distraction. The multifunctionality of smartphones easily shifts the minds of students from educational activities to social media, games, and much other non-educational content. As Bowles (2024) asserts, this could work to dampen the learning potential of smartphones. Another major challenge is the digital divide, where unequal access to smartphones and internet connectivity could exacerbate the existing educational inequalities. In regions with less infrastructure in place, those students left out will end up widening the achievement gap (Gudmundsen, 2024). Sometimes teachers are not trained enough to incorporate smartphones in their teaching, making underutilization or ineffective use common. This also raises pedagogical concerns in the integration of smartphones into the curriculum. A teacher must ensure that when smartphones are in use, it should not be at the expense of the educational goal or diversions from the learning process. In this respect, planning ahead and providing guidelines and strategies are expected for effective use of the smartphones in classroom processes. In Azerbaijan, these challenges may come in unique forms due to the specific cultural, economic, and educational context. For example, though smartphone penetration is relatively high, disparities in access and digital literacy make them work poorly in education. Understanding of such local challenges will help in shaping specific strategies so as to make the integration of the smartphone into language learning equitable and effective in the Azerbaijani context.

2.5. Gaps in the Literature

Although the role of smartphones in the education process and language learning in most countries around the world has been receiving increased attention in recent years, the situation in Azerbaijan is somewhat different, as few studies were conducted in this field. Thus, very little research was carried out in an understanding of how smartphones are perceived and used in terms of language education in Azerbaijan. In addition, this gap is important due to the cultural uniqueness, economic and educational environment of the region that may affect the nature and manner of use of the digital tools in classrooms. The absence of localized research does underscore the need to undertake studies on the perceptions, attitudes, and challenges associated with using smartphones in the education of the Azerbaijani language. The present study aims to address this gap and provide insights not only relevant

to educators and policymakers in Azerbaijan but also for the broader discourse of mobile-assisted language learning (MALL) in similar contexts.

3. Methodology

3.1. Research Design

This study is formulated into a carefully structured quantitative survey that aims to collect diversified data from the cohort, including students, teachers, and parents. This was done in an attempt to ensure that the study captured a broad and representative snapshot of the variance that existed within the educational community in Azerbaijan. A Google Form survey was the main instrument of data collection, which is actually suitable since now all prospective target groups have digital tools in their pockets and, in general, have access to the internet. Therefore, I chose this method not only because it was convenient but also due to the fact that the form itself made it possible to broadly distribute the survey rapidly through many points across geographical locations within Azerbaijan.

This part of the survey has been carefully designed to capture a wide array of questions that would provoke responses giving elaborate information on experiences with and attitudes toward the use of smartphones in language education. Attention was especially paid to record responses reflecting perceived challenges and benefits of using smartphones in the learning process. The decision to pursue a quantitative survey was guided by the aim to solicit data that could be subject to comprehensive statistical evaluation and provide the grounds for the identification of considerable patterns and trends in the feedback of the respondents. The structured nature of the questionnaire provided an opportunity to fetch standardized responses, which is a necessary precondition for the further comparative analysis. The use of Google Forms as the data collection instrument was beneficial in a number of practical ways. To start with, it provided an easy and effective way to collect, store, and manage huge loads of data with assurances that responses were safely stored in a central digital repository. The computerized form also allowed for easy structuring and retrieving of information for analysis, which increased efficiency and speeded up the research process. The digital nature of the Google Form survey minimized, to a very large extent, any possibility of data-entry error since responses were input directly into the system by the participants themselves, thereby safeguarding both the integrity and reliability of the information collected. All of these contributed to making the overall research design very strong and effective in investigating the complex dynamics of smartphone use in language education within the Azerbaijani context.

The research design was guided by several key objectives:

1. To assess the level of acceptance of smartphones as educational tools in language learning.
2. To identify the perceived benefits and drawbacks of smartphone use in the classroom.
3. To explore the differences in perceptions among students, teachers, and parents.

By focusing on these objectives, the survey was able to provide a comprehensive overview of the current state of smartphone use in language education in Azerbaijan.

3.2. Data Collection

Data collection was accomplished through a Google Form survey, shared online with a sample of 540 participants composed of students, teachers, and parents. The instrument designed for the survey was user-friendly, with clear instructions provided in the beginning and a very logical flow of questions that helped in understanding and responding easily. These would comprise multiple-choice questions and open-ended queries, Likert scale items, etc. Multiple-choice and Likert-scale questions were asked to get quantitative data pertaining to attitude and experience, while open-ended questions ensured qualitative input for the challenges and gains in using smartphones in language education.

The Google Form survey has been shared on several online platforms, including email, social media, and messaging applications, to reach as large of an audience as possible. In using digital distribution methods, it allowed for the survey to be completed at a time convenient to the participants and increased the likelihood of participation and diversified responses.

The online survey was left open during a period of 3 months. Respondents were invited to express their opinions and relate their experiences. In order to have a representative sample, the participants must originate from different regions and have different educational and age backgrounds.

3.3. Data Analysis

The responses to the Google Form survey were systematically gathered and analyzed for trends and patterns. Quantitative data analysis included descriptive statistics for multiple-choice and Likert scale questions, assessing their frequency and distribution of responses. This showed general attitudes and experiences of participants in using smartphones in language education.

In addition to descriptive statistics, inferential statistical methods were also adopted in order to test relationships and differences in the responses of various subgroups of participants. For example, chi-square tests were conducted to establish whether demographic variables were related to attitudes towards smartphone use held by participants.

Thematic analysis was conducted on the qualitative data obtained from open-ended questions. Responses were coded and subsequently categorized with respect to views expressed by participants regarding the benefits and challenges of integrating smartphones into language education. This qualitative analysis gave a deeper understanding of particular concerns and suggestions raised in these questions by participants, thus complementing the quantitative findings and offering nuanced insight. In this way, it combined quantitative and qualitative data analysis to obtain a full picture of the existing perceptions concerning smartphone use in language education settings across Azerbaijan. The findings from this analysis will be discussed at length in the section on results, with a view on how to take these insights into futures educational practices and policies.

4. Results

4.1. Roles

- Students (Tələbə): Most respondents, or 57.4%, fall under the category of student. This is the most outstanding demographic of the entire survey, which shows especially great interest in the topic area and a high level of involvement among the people actually engaged in language learning.
- Primary School Teachers (Müəllim - İbtidai sinif): A total of 12.4% of the respondents from this group provided insights from those members who are professionals in early education, often laying the foundation for the skills of students in language.
- Middle School Teachers (Müəllim - Orta məktəb): This subgroup accounted for 12% of the sample, thereby providing findings from the teachers in the critical transition years of language education.
- University Teachers (Müəllim - Universitet): They constitute 15.4% of the respondents and reflect views from higher education, where advanced language skills are quite necessary.
- Parents (Valideyn): The other 12% were parents and hugely contributed to the report through their eyes on those charged with the students' educational environments outside of school.

Table 1.
Distribution of survey respondents by role.

Role	Number of respondents	Percentage	Azerbaijani translation
Students	310	57.4%	Tələbə
Primary school teachers	15	2.8%	Müəllim - İbtidai sinif
Middle school teachers	67	12.4%	Müəllim - Orta məktəb
University teachers	65	12.0%	Müəllim - Universitet

Note: Table 1 shows the distribution of survey respondents based on their roles within the educational system, including students, primary school teachers, middle school teachers, university teachers, and parents.

- *Age Groups:*
- 18-24 years: the response in this category was 16.1%, and the majority of them were young students pursuing higher education.
- 25-34 years: This was the single largest category of respondents, at 44.6 percent. It would have consisted of younger professionals and perhaps some senior students continuing their education.
- 35-44 years: Accounting for 14.1% of the respondents, most of the teachers and parents who completed the questionnaire probably fell within this age bracket.
- 45-54 years: This group had 16.9% of the respondents and could lend some insights into more experienced educators and a larger group of parents.
- 55-64 years: 7% of the respondents belonged to this age group, with views to be expected from senior educators and parents backed by a lot of life experience.
- 65+ years: The oldest respondents were only 1.3%, therefore the smallest category of all who might bring long-term perspective information about practices in education.

These demographic details are important in the understanding of the different perspectives represented in the survey, which spans both ends of the spectrum concerning individuals who have been engaged with and impacted by the integration of smartphones into language education in Azerbaijan. The heterogeneity of the sample under investigation provides assurance that the findings will be large-ranging and representative of different stakeholders involved in language education.

Table 2.
Distribution of survey respondents by age group.

Age group	Number of respondents	Percentage	Azerbaijani translation
below 18	87	16.1%	18 yaşdan aşağı
18-24	241	44.6%	18-24
25-34	76	14.1%	25-34
35-44	91	16.9%	35-44
45-54	29	5.4%	45-54
55-64	13	2.4%	55-64
65+	3	0.6%	65+

Note: Table 2 presents the distribution of survey respondents by age group, showing the number of participants and the percentage in each category.

4.1.1. Experience with Smartphones in Education

- Related Questions:
- Q3: "Experience level with using smartphones in education."
- Q4: "Value of smartphones in supporting language learning outside the classroom."
- Analysis:
- Experience Level with Smartphones in Education (Q3): Level of experience with using smartphones in education. As can be seen, most responses to this item indicated that most of the respondents had different levels of experience using a smartphone for educational purposes. Specifically, 51.5% ranked their level of experience as "Intermediate," meaning they have only moderate familiarity and comfort with using a smartphone for some educational purposes. Meanwhile, 37.2% of the participants consider themselves at an "Advanced" level, showing a grandes skill in integrating smartphones into educational activities. Smaller percentages of the respondents identified as "Beginner" with 3.2%, "Novice" — 6.5%, and "Developed" — 1.6%.
- Value of Smartphones for Language Learning Outside the Classroom (Q4): A significant proportion of respondents recognized the value of smartphones as tools for language learning

beyond the classroom environment. The data shows that 48.1% of participants agree, and 33.1% strongly agree that smartphones provide valuable support for language learning outside of traditional classroom settings. This demonstrates a strong belief in the potential of smartphones to facilitate continuous learning and access to educational resources, even when learners are not physically present in a classroom.

- The findings indicate a generally positive attitude towards the use of smartphones in education, with a significant number of participants possessing intermediate to advanced experience levels. Additionally, there is widespread recognition of the value of smartphones in supporting language learning outside the classroom, highlighting their potential as effective tools for extending learning opportunities and enhancing language acquisition in informal settings.

Table 3.

Experience level with smartphones in education.

Experience level	Number of respondents	Percentage	Azerbaijani translation
Beginner	35	6.5%	Aşağı səviyyə
Novice	25	4.6%	Təcrübəsiz
Intermediate	278	51.5%	Orta səviyyə
Advanced	201	37.2%	Yüksək səviyyə
Developed	1	0.2%	İnkişaf etmiş

Note: Table 3 details respondents' self-assessed experience levels with using smartphones in educational contexts, highlighting a significant proportion at the "Intermediate" and "Advanced" levels.

4.1.2. Perceived Benefits of Smartphone Use

- Related Questions:
- Q5: "Smartphones' role in increasing student engagement in language classes."
- Q7: "Effectiveness of smartphone applications in learning foreign languages."
- Q16: "Smartphones supporting collaborative learning in language education."
- Q18: "Access to learning resources through smartphones."
- *Analysis:*
- Student Engagement: 52% of the respondents agreed that using smartphones during language classes could increase student engagement. Another 31.3% strongly agreed to the statement, which shows that on the whole, smartphones are considered to be of use in keeping students interested in learning languages.
- Effectiveness of Applications: A high 55% of responses found smartphone applications to be effective tools in learning foreign languages; 30.9% strongly agreed with this opinion. This demonstrates rather solid trust in the formative capacity of mobile applications for language learning.
- Collaborative Learning: A majority of respondents (52.4%) agreed that smartphones could strengthen collaborative learning in language education, while 27% strongly agreed. This indicates a recognition of the role smartphones play in fostering teamwork and group learning activities.
- Access to Resources: The survey showed that 85.7% of respondents agreed that smartphones make language learning resources more accessible, with 43.3% strongly agreeing. This underscores the perceived utility of smartphones in providing students with easy access to learning materials, such as audio and video resources, outside traditional classroom settings.

Table 4.
Experience level with smartphones in education.

Benefit	Agree	Strongly agree	Total agreement (Agree + strongly agree)	Azerbaijani translation
Increased student engagement (Q5)	52.0%	31.3%	83.3%	Tələbə iştirakını artırmaq
Effectiveness of applications (Q7)	55.0%	30.9%	85.9%	Tətbiqlərin effektivliyi
Collaborative learning (Q16)	52.4%	27.0%	79.4%	Birgə öyrənməni dəstəkləmək
Access to learning resources (Q18)	42.4%	43.3%	85.7%	Öyrənmə resurslarına çıxış

Note: Table 4 summarizes how the main perceived benefits of using a smartphone in language education were viewed by the respondents from the survey. The table shows what the statements agree on with respect to student engagement, effectiveness of application, collaborative learning, and access to resources.

4.1.3. Challenges and Concerns

- **Related Questions:**
- Q6: "Potential of smartphones to distract rather than facilitate learning."
- Q10: "Regulations to prevent smartphone misuse in language education."
- Q11: "Comparison of benefits and drawbacks of using smartphones in language education."
- Q12: "Concern about screen time due to smartphone usage in education."
- Q17: "Smartphones creating inequality among students due to access issues."
- **Analysis:**
- **Distractions:** The survey results highlight a significant concern regarding the potential for smartphones to serve as distractions in the classroom rather than as learning tools. A notable 32.4% of respondents agreed that smartphones can distract students more than they facilitate learning, with an additional 26.9% strongly agreeing. This indicates that while smartphones offer educational benefits, their misuse or overuse could negatively impact the learning environment.
- **Need for Regulations:** The majority of respondents (46.7%) agreed that there should be regulations in place to prevent the misuse of smartphones in language education, with 32.2% strongly supporting this notion. This would mean that while the participants identify high value for smartphones in education, they also realize that clear rules and guidelines related to the prevention of possible problems like distractions and misuse are very important in this context.
- **Benefits vs. Drawbacks:** When comparing the benefits and drawbacks of smartphone use in language education, 44.6% of participants felt that the benefits outweigh the negatives, while 17.6% strongly agreed. Nevertheless, since a large proportion of respondents remained concerned about those drawbacks, there was relative balance in the approach to integrating smartphones into educational settings.
- **Screen Time Concerns:** A significant concern among participants is the amount of screen time associated with smartphone use in education. About 33.7% of respondents agreed that excessive screen time is a worry, with 25.6% strongly agreeing. This highlights the importance of finding ways to use smartphones effectively while minimizing the risk of excessive screen exposure, which could have negative health and attention-related impacts on students.
- **Inequality Issues:** The potential for smartphones to create inequality among students is another major concern. A combined 52.6% of respondents (28.5% agreed, 24.1% strongly agreed) expressed that smartphones might exacerbate existing inequalities, particularly for students who do not have access to these devices. This underlines the importance of addressing accessibility issues to ensure that all students have equal opportunities to benefit from technology in education.

Briefly speaking, while a smartphone is highly valued as one of the ways of learning, its potential to distract students from what is necessary for their education, create unequal opportunities for learning, and boost the time spent in front of the display raise very important issues. In these conditions, there is an essential need for this object regarding clear regulations in use, a balanced way of usage, and some measures aimed at safeguarding equal access.

Table 5.

Summary of challenges and concerns regarding smartphone use in education.

Challenge/concern	Agree	Strongly agree	Total Agreement (Agree + strongly agree)	Azerbaijani translation
Distractions (Q6)	32.4%	26.9%	59.3%	Diqqəti yayındırma
Need for Regulations (Q10)	46.7%	32.2%	78.9%	Tənzimləməyə ehtiyac
Benefits vs. Drawbacks (Q11)	44.6%	17.6%	62.2%	Faydalar və mənfi cəhətlər arasındakı balans
Screen Time Concerns (Q12)	33.7%	25.6%	59.3%	Ekran qarşısında keçilən vaxtla bağlı narahatlıq

Note: Table 5 identifies a range of key challenges and concerns related to the issue of using smartphones in language education, as drawn from the survey respondents. This table expresses levels of agreement with statements on issues like distraction, regulations, benefits versus drawbacks, screen time, and equality issues.

4.1.4. Challenges and Concerns

- Related Questions:
- Q6: "Potential of smartphones to distract rather than facilitate learning."
- Q10: "Regulations to prevent smartphone misuse in language education."
- Q11: "Comparison of benefits and drawbacks of using smartphones in language education."
- Q12: "Concern about screen time due to smartphone usage in education."
- Q17: "Smartphones creating inequality among students due to access issues."
- *Analysis:*
- Main Concerns: This raised a consideration for some key questions about the potential distractions that the smartphone may be causing during the learning activity. The survey results depicted a remarkable percentage of respondents holding the perception that smartphones are more likely to divert students' attention rather than aiding them in their learning activity. This question is related to Q6, which asked people whether or not they feel that smartphones have the potential to distract students.
- Regulation and Misuse: In response to Q10, many participants emphasized the need for clear regulations to prevent the misuse of smartphones in educational settings. In absence of the same, the comprehensive learning environment would either get entirely distracted or mislead along harmful pathways. The participants further need the fact that technology demands a structure on the usage of Smartphones within the classrooms so that maximum advantages out of it with minimum applicable negative sides could be derived.
- Comparison of Benefits and Drawbacks: Question 11 asked the respondents to compare the advantages and disadvantages of using a smartphone in language learning. The results came with a mixed response where some acknowledged the strength of using a smartphone as a resource tool where a lot of resources are accessed with ease, hence more engagement; others pointed out the possible disadvantages, misuse, and hence potential distractions.

- **Screen Time Concerns:** Q12 raised concerns about the level of screen exposure students are exposed to through the use of smartphones in education. Of the respondents, a large proportion were concerned that there might be negative implications for sustained screen exposure on the health and well-being of students.
- **Inequality and Access Issues:** Q17 tackled this very issue of inequity in the student population with respect to access to a smartphone. In that case, those participating accepted that there was a risk that smartphones would further the gap between students, like those coming from weaker socio-economic backgrounds who might not have access to such gadgets. The point being raised here is that equality in access to technology within the learning environment is a prerequisite if all students are to reap benefits from learning through the use of smartphones.

Thus, the participants noted that it is in the area of addressing the most cardinal challenges associated with the use of smartphones in language education. In this way, the indicated drawbacks can be avoided with proper regulations, teacher training, and equal access to technology, which will further increase the general output of technological integration in the educational settings.

Table 6.
Summary of challenges and concerns regarding smartphone use in education.

Challenge	Percentage of respondents	Description
Distractions	59.3% (32.4% agree, 26.9% strongly agree)	Smartphones are seen as more likely to distract students rather than facilitate learning.
Need for Regulations	78.9% (46.7% agree, 32.2% strongly agree)	Respondents emphasize the importance of implementing regulations to prevent misuse.
Benefits vs. Drawbacks	62.2% (44.6% agree, 17.6% strongly agree)	Mixed responses on whether the benefits of smartphones outweigh the drawbacks.
Screen Time Concerns	59.3% (33.7% agree, 25.6% strongly agree)	Concerns about the impact of excessive screen time on student health and well-being.
Inequality and Access Issues	52.6% (28.5% agree, 24.1% strongly agree)	Potential for smartphones to exacerbate inequalities among students, part

Note: Major challenges faced by the students and issues considered in using smartphones for education, reported by the respondents, are summarized in Table 6. Percentages are out of total levels of agreement and strong agreement.

4.1.5. Challenges and Concerns

- *Related Questions*
- Q6: "Potential of smartphones to distract rather than facilitate learning."
- Q10: "Regulations to prevent smartphone misuse in language education."
- Q11: "Comparison of benefits and drawbacks of using smartphones in language education."
- Q12: "Concern about screen time due to smartphone usage in education."
- Q17: "Smartphones creating inequality among students due to access issues."

- *Analysis:*

The survey results highlight several challenges and concerns associated with the use of smartphones in education. A significant number of participants expressed worries that smartphones could serve as a distraction rather than a learning aid (Q6). Many respondents were concerned that smartphones can take on a role more as a distractor than as a learning aid. The percentage of students who agreed with this statement was very high, at 32.4%.

Moreover, on the issue of possible misuse, the respondents mentioned in Q10 that there are supposed to be rules set in order to prevent the misuse of smartphones in an educational institutional setting, where the very strong majority of 46.7% accepted the view. The result indicates a need for structured guidelines so that smartphones can be effectively operated for educational purposes.

When asked to compare the benefits and drawbacks of smartphone usage in education (Q11), respondents were somewhat divided. Still, the largest group of 44.6% tended to think that the sum of the benefits was taking over the negatives, though a large group stayed neutral and did not know.

Q12 also indicated that the screen time is a problem; from this question, 33.7% agreed that the time spent on screens, as a result of using smartphones in education, presents a problem. This figure indicates some sort of awareness of the probable health effect of screen exposure.

Lastly, Q17 highlighted the issue of inequality, with 28.5% of respondents agreeing that smartphone use in foreign language education could create problems related to equity among students, especially those who may not have equal access to these devices. This underscores the importance of addressing accessibility issues to prevent furthering educational disparities.

These concerns indicate that even though there are potentials for enhancing learning with the adoption of smartphones, their integration within the learning environment cannot be fully independent of increased challenges to be coped with. Structured policies, equity of access, and clear guidance as to what constitutes appropriate use will be paramount in maximizing the benefits while maintaining the drawbacks to a minimum.

Table 7.
Summary of challenges and concerns regarding smartphone use in education.

Challenge/Concern	Percentage of respondents	Analysis summary
Distractions (Q6)	32.4%	Significant concern that smartphones may distract students more than they aid in learning.
Need for regulations (Q10)	46.7%	Strong majority support for implementing regulations to prevent smartphone misuse in educational settings.
Benefits vs. drawbacks (Q11)	44.6%	Majority believe benefits outweigh drawbacks, but a significant portion remains neutral or unsure.
Screen time concerns (Q12)	33.7%	Concerns about prolonged screen exposure and its potential negative health effects.
Inequality and access issues (Q17)	28.5%	Worry that smartphone use may exacerbate inequality among students, particularly those without access.

Note: Table 7 summarizes the key challenges and concerns raised by respondents regarding the use of smartphones in education, highlighting the need for structured policies and equitable access to technology.

4.2. Summary of Key Findings

Survey results give a complete, well-rounded view of the current perspectives and experiences relevant to smartphone use in education, especially in a language-learning context.

4.2.1. Positive Impacts

- **Engagement and Learning Enhancement:** A big percentage of the respondents believe that smartphones can increase the student's engagement in language classes (Q5) and are effective in learning foreign languages through various applications (Q7). The support of collaborative learning (Q16) and access to diverse learning resources (Q18) were also in a brighter position due to the substantial advantage of the smartphones.

- Curriculum Integration: Most students concurred that smartphones could be well integrated with the curriculum (Q19) and are able to make applications digital—comprising various learning methods (Q13)—depicts more on detailed results, reflecting that students feel their learning would be greatly enhanced with the use of smartphones in an appropriate manner.

4.2.2. Challenges and Concerns:

- Distractions and Misuse: Great as these overtones the flip side of the issue involves a tendency to adopt smartphones for use in distractions as opposed to being potential tools of learning (Q6). In connection with this, there is, it is observed, a dominant call to implement regulations that can curb the misuse of smartphones in an educational scenario (Q10).
- Screen Time and Inequality: A worry opposite inequality that did emerge is if more screen time is creating more negative health and well-being outcomes for learners (Q12). Further, inequality and regional disparity in access to smartphones among learners were highlighted as a challenge in the findings-oriented questionnaires (Q17).

4.2.3. Stakeholder Engagement and Training

- Teacher Training and Parental Awareness: There is a clear demand for teacher training on the effective use of smartphones in education (Q8), as well as for increasing parental awareness regarding their role in language learning (Q9). Establishing clear guidelines on when and how smartphones should be used in the classroom (Q14) is also considered crucial to maximizing their benefits while minimizing potential risks.

4.2.4. Recommendations

Based on the findings, several key recommendations can be made:

- Policy Development: Develop and implement clear policies and guidelines for smartphone use in education to ensure they are used as effective learning tools rather than sources of distraction.
- Teacher Training: Invest in comprehensive training programs for educators to help them integrate smartphones effectively into their teaching practices.
- Addressing Inequality: Ensure that all students have equitable access to the necessary technology to prevent disparities in educational outcomes.
- Health Considerations: Monitor and manage screen time to safeguard students' physical and mental well-being.
- Parental Involvement: Engage parents by increasing their awareness and understanding of how smartphones can be used constructively for language learning.

These steps will be vital in harnessing the full potential of smartphones in education while addressing the challenges and concerns identified in the survey.

5. Conclusion

5.1. Summary of Key Points

The present article focuses on the multi-dimensional role of smartphones in language education within the Azerbaijani curriculum and various relevant stakeholder perceptions. In this comprehensive survey, which includes students, teachers, and parents, a variety of opinions have surfaced regarding the benefits and challenges posed by using a smartphone as an educational tool. The key findings that crop up first are that smartphones are high in leveraging possibilities to improve language learning. Discussion This section presents some of the critical points from this research. First of all, it is recognizable that huge potential exists for enhancing smartphone teaching and learning languages with increased engagement through use, access to rich and varied resources, and facilitation of collaborative learning. For most interviewees, smartphones were invaluable in extending the learning space beyond the classroom and making language education more accessible and flexible.

The survey also raised some concerns that need to be taken into consideration. One major issue is related to possible distractions: a considerable number of participants were concerned that the use of smartphones would impede the learning process rather than facilitate it. Clear regulations and guidelines were also strongly called for, along with the issue of screen time and its possible health effects on students. The issue of inequality also came up, as access to smartphones could be unequal between students, leading to further educational disparities. These findings suggest that while a smartphone may provide serious potential benefits for language education, the integration should be done with caution and strategic planning. It is evident that there is huge potential for enhancement of learning by using smartphones, but this potential will only materialize if the challenges identified in this study are addressed.

5.2. Final Thoughts

The place of smartphones in language education is a turning point in our approach to teaching and learning in the digital age. This study has demonstrated that, with a smartphone at their disposal, a language learner is bound to have a revolutionized language education setting in which increased access to learning resources will occur, more student engagement will ensue, and collaboration in learning will be possible. These advantages make smartphones an indispensable tool in the modern educational landscape. Successful integration of smartphones into language education, however, is much more about more than just making the technology available. That means a careful, well-balanced approach to meeting diverse needs for students, teachers, and parents alike. Clear guidelines and directives will help avoid abuses, and on the educators' part, an effort to ensure equal access to them by all students. Moreover, educators have to be trained enough in using smartphones and involving parents in the educational process to be aware of the pros and cons of using a smartphone in education.

Looking further into the future, the impact that smartphones could have on language learning is colossal. They can offer flexibility and interactivity with individualistic learning experiences that could make the acquisition of a language and the development of proficiency in it far more achievable. However, it would need proactive measures taken by educational institutions in order to alleviate these mounting challenges of smartphone use. In this way, they will ensure that a smartphone is not just an example of technological novelty but a very powerful tool in itself for the enhancement of language learning experience and the preparation of students to function in the demands of the modern world. It is careful planning, strategic implementation, and further evaluation that can truly tap into the full potentials of smartphones in language education. While considering all the issues raised in this research, educators and policymakers will be able to create a learning environment wherein not only phones are used as accessories but will be an integral part of educational experience to drive student success and educational innovation.

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Appendix

Survey on Digital Classrooms in Azerbaijan

Integration of Smartphones and Tablets into Foreign Language Lessons

This survey was designed to explore the opinions of teachers, parents, and students regarding the integration of smartphones and tablets into language education in Azerbaijani English language classrooms.

Contact Information:

- Email: alisoy1408@gmail.com

Survey Questions:

1. Select your role:

- Tələbə (Student)
- Müəllim - İbtidai sinif (Primary School Teacher)
- Müəllim - Orta məktəb (Middle School Teacher)
- Müəllim - Universitet (University Teacher)
- Valideyn (Parent)

2. Select your age group:

- 18 yaşdan aşağı (Under 18)
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

3. Select the option that best describes your experience level with using smartphones in education:

- Aşağı səviyyə (Beginner)
- Orta səviyyə (Intermediate)
- Yüksək səviyyə (Advanced)

- Təcrübəsiz (Novice)
4. Smartphones provide valuable support for learning languages outside the classroom.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 5. The use of smartphones in language classes can increase student engagement.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 6. Smartphones distract students more than they facilitate learning.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 7. I believe that smartphone applications are effective tools for learning foreign languages.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 8. Teachers should receive training on how to effectively use smartphones in language teaching.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 9. Parents should be informed about how smartphones are used for language learning.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
 10. Smartphone use in language education should be regulated to prevent misuse.
 - 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərsızam (Neutral)
 - 4 = Razıyam (Agree)

- 5 = Tamamilə razıyam (Strongly Agree)
11. The benefits of using smartphones in language education outweigh the drawbacks.
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
12. I am concerned about the amount of screen time due to smartphone use in the educational process.
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
13. Various learning methods can be implemented in foreign language education through smartphones.
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
14. There should be clear rules on when and how smartphones should be used during foreign language lessons.
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
15. I am confident in using smartphones responsibly for educational purposes (or I am confident that my child uses them responsibly).
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
16. Collaborative learning in foreign language education can be enhanced through the use of smartphones.
- 1 = Tamamilə razı deyiləm (Strongly Disagree)
 - 2 = Razı deyiləm (Disagree)
 - 3 = Qərarlıyam (Neutral)
 - 4 = Razıyam (Agree)
 - 5 = Tamamilə razıyam (Strongly Agree)
17. Using smartphones in foreign language education creates inequality among students. This implies that differences in students' access to resources may leave those without smartphones at a disadvantage.

- 1 = Tamamilə razı deyiləm (Strongly Disagree)
- 2 = Razı deyiləm (Disagree)
- 3 = Qərarsızam (Neutral)
- 4 = Razıyam (Agree)
- 5 = Tamamilə razıyam (Strongly Agree)

18. Smartphones make language learning resources more accessible (e.g., English language audio and video materials).

- 1 = Tamamilə razı deyiləm (Strongly Disagree)
- 2 = Razı deyiləm (Disagree)
- 3 = Qərarsızam (Neutral)
- 4 = Razıyam (Agree)
- 5 = Tamamilə razıyam (Strongly Agree)

19. The systematic use of smartphones for language learning should be integrated into the curriculum.

- 1 = Tamamilə razı deyiləm (Strongly Disagree)
- 2 = Razı deyiləm (Disagree)
- 3 = Qərarsızam (Neutral)
- 4 = Razıyam (Agree)
- 5 = Tamamilə razıyam (Strongly Agree)