第 48 卷第 8 期
2021 年 8 月

湖南大学学报（自然科学版）
Journal of Hunan University（Natural Sciences）

Vol. 48. No. 8.
August 2021

Open Access Article

THE IMPLEMENTATION OF CALL-BASED INSTRUCTION AND ITS INFLUENCE ON THE LEARNERS IN AN EXAMPLE OF TSUL (TASHKENT STATE UNIVERSITY OF LAW)

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Abstract
This paper based on the research discusses the use of CALL-Computer-Assisted Language Learning, particularly during the pandemic, and its effects on the students of Tashkent state university of law. Indeed, the main purpose of the study is to compare the results of the final assessment before and during the pandemic which led to online teaching and learning, provide its holistic image, and present the overall opinion of the students on this mode of education. For this reason, it initially introduces the brief history, typology, and use of CALL in education apart from the views of different scholars. It also involves both primary and secondary data including observation and questionnaire methods. For the comparison, the researcher applied both qualitative and quantitative methods with the analysis of the results, and it was found that the integration of CALL into the ongoing education is the most preferable alternative during the pandemic owing to a safe environment, better computer awareness, and time management.
Keywords: CALL, online education, computers, apps, programs, activities, multimedia, technology-based instruction, a final assessment
抽象的

本文基于研究讨论了 CALL-Computer-Assisted Language Learning 的使用，特别是在大流行期间，及其对塔什干州立法大学学生的影响。事实上，该研究的主要目的是比较导致在线教学和学习的大流行之前和期间的最终评估结果，提供其整体形象，并呈现学生对这种教育模式

Received: June 28, 2021 / Revised: July 27, 2021 / Accepted: August 13, 2021 / Published: August 25, 2021
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的总体看法。为此，它首先在不同学者的观点之外介绍了 CALL 的简史、类型学和在教育中的使用。它还涉及主要和次要数据，包括观察和问卷调查方法。为了进行比较，研究人员应用定性和定量方法并分析结果，发现由于安全的环境、更好的计算机意识，将 CALL 融入持续教育是大流行期间最可取的选择，和时间管理。

关键词：CALL、在线教育、计算机、应用程序、程序、活动、多媒体、基于技术的教学、期末评估

Introduction

For a start, due to its accessibility, usability, convenience, efficiency, and other merits technology has become of importance in our lives and many educational settings. Various appliances provide a host of opportunities for both teachers and students via enhancing motivation, comprehension, collaboration, and connection between them. Hence, at present most educators are very willing to blend their classroom with various technologies entailing desktops, laptops, headphones, projectors, speakers, and others, and they create different interactive activities, games, and projects with the assistance of these very technologies. Besides, as we are living in a technology-based world computer literacy is a must; thus, all instructors are highly expected to have some pieces of technology in the class in a bid to meet the demands of the learners; therefore, various e-learning devices are available in many institutions. Also, in the last few months, virtual classrooms have already been widely common owing to the pandemic. With these reasons in this article we mainly focused on one of the best so-called teaching methods "CALL", its brief history, typology, and influence on learners as well as providing the comparison of final assessment results of two specific groups over the first and second semesters with the results of the questionnaire conducted on the opinions of the students regarding the online classes incorporated with interactive online platforms and activities at a specific University. Indeed, in our view, this term has to be well-defined prior to the main part of the research and we tried to state the perceptions of different scholars on this very term in the following.

Literature Review

CALL (Computer Assisted Language Learning) within applied Linguistics has been a subject of other fields of study including computer science, psychology, cognitive science, curriculum design, and so on. It is firstly deemed as any process in which the learner utilizes the computer and enhances his/her knowledge and expertise (Beatty, 2003, p. 7). According to Levy "CALL is the search and analysis of computer apps in language education" (1997, p.1), whilst Chapelle (2001) states that it refers to both computer science and SLA (p.3). From our perspective, it is the integration of computer applications with language learning and teaching in order to achieve a certain goal. Beatty (2003) also notes that there are other several terms that could replace Computer-Assisted Language Learning, but most of them are not in use at present:

- CAI- Computer-Aided Instruction is a way of learning with a computer with no language target and it is mostly teacher-centered;

- CALI-Computer-Assisted Language Instruction refers to the instruction which holds no human instructor and the computer itself handles all forms of teaching;
- CAL-Computer-Assisted Learning is mainly related to the use of a computer to be aware of any subject & languages, and importantly it focuses on the learner and his/her learning goals;
- CALT-Computer-Assisted Language Teaching can be an alternative to CALL, but the more stress is laid on the educator;
- CAT (Computer-Assisted Teaching) involves computer-assisted learning that isn't always centered on language;
- CBT (Computer-Based Training) includes programs applied for corporate training with concrete, short-term learning objectives, but it can also be related to any form of education;
- TELL stands for Technology-Enhanced Language Learning and encompasses all types of technology utilized in the class, including recorders, videos, and even whole listening laboratories;
- WELL (Web-Enhanced Language Learning) employing the WWW as the main mode of teaching, initially belonged to CALL.

This list can be extended, but the main forms of technology-based instruction were provided with their definitions. The author also points out that unlike these terms CALL is intertwined with a variety of other fields, and technology, as a method for assisting or studying the teaching-learning process. It, for instance, is now more frequently used in the study and practice of general areas of learning apart from specific realms (p.10). Furthermore, this method might be applied within or out of the classroom in which the learners are more obliged to study independently and develop their own sense of learning. From our point of view, the history and presence of CALL still should be examined in depth in applied linguistics in order to fully understand its essence. Therefore, in this work, we also took these points into account before reaching the main part. According to Beatty (2003), the brief history of CALL is divided into four stages:

CALL in the 1950s and 1960s

Apparently, integrating technology with education is not a recent phenomenon since its history dates back to the late 1950s when the computers were initially used for only research in institutions, and the first CALL projects were developed at Stanford University, Dartmouth University, and the University of Essex, but all of them concentrated on teaching Russian before other languages were eventually added. Finally, coming to the year 1959 the University of Illinois created the PLATO (Program Logic/Learning for Automated Teaching Operation) system in partnership with a business associate, Control Data Corporation, and it was the first and most crucial application for learning and teaching language with the help of the computer (Beatty, 2003, p.20). This system could provide input in the form of an assessment centered on the wrong answers made by students. The same stages must be completed in the very same order by learners with marks and progress awarded for the right answers. However, this program mainly dealt with the translation of Russian documents applying the Grammar translation method which involves checking grammar and spelling. As Richards and Rodgers claimed this method was commonly used from the 1984s to 1940s and when it comes to SLA the GTM possibly worked

to a minor extent in early systems since the learners had to adjust to the materials provided by the instructor (1994, p.4).

CALL in the 1970s and 1980s

In this period the emphasis was mostly put on the creation of new types of programs called Eliza, Macario, Montevidisco & Interactive Digame, ALLP, No Recuerdos and, etc. It is also important to note that at that very time computers were divided into three categories: minicomputers, microcomputers, and mainframe computers. Beatty defines mainframe computers as massive machines which took up a lot of space, whereas mini-computers were akin to what we today perceive as servers, and personal or desktop computers once were referred to as microcomputers (p.25). Videodiscs were also introduced at that time and they provided high-speed and storage capacity. M.D. Bush and J. Crotty put forward the view that the practice with video-based tasks is obviously more effective as opposed to text-based activities since learners are more likely to select from a variety of problem-solving techniques thanks to the control choices incorporated into the interactive class (1991, p.87-6).

CALL in the 1990s

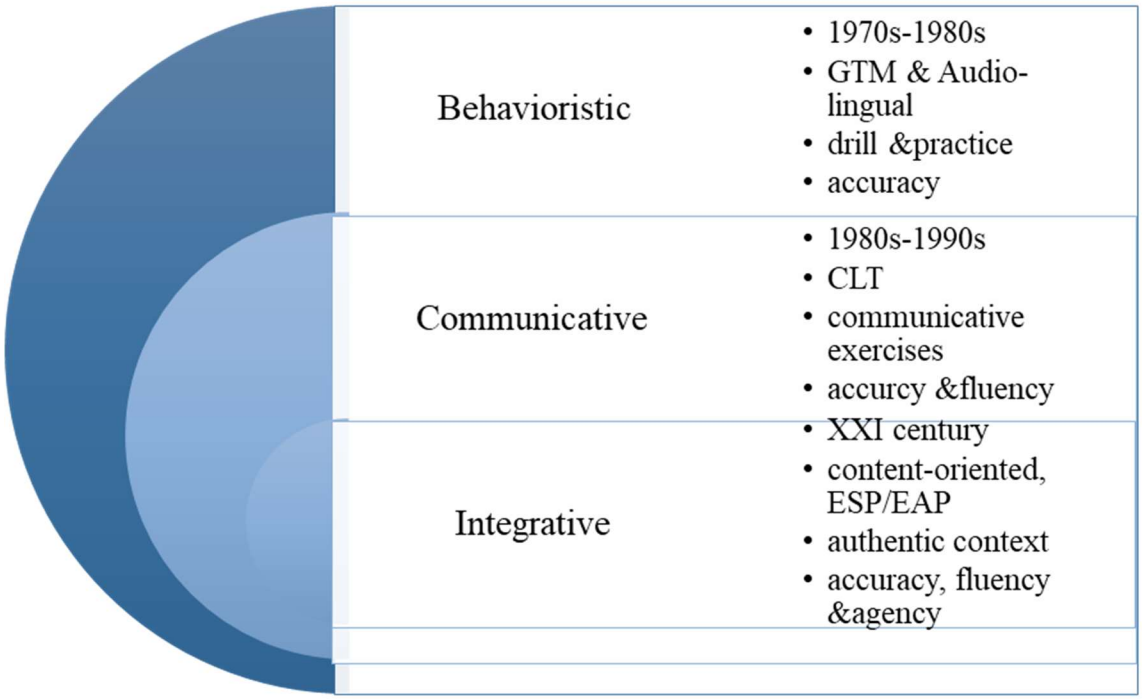
Multimedia computers and the World Wide Web (WWW) were the cornerstone of integrative CALL in the mid-1990s. Suggesting the way of assessing narrative-driven multimedia learning environments useful guidelines were also included. In addition, most of the teachers were transitioning from a cognitive to a more socio-cognitive approach of communicative instruction focusing on more authentic social settings. As a result, project-based, task-based, and content-based strategies were more used in the class and this led to integrative CALL (Warschauer, 1996).

CALL in the twenty-first century

The incorporation of computing facilities into many areas of everyday life is one of the most significant changes in this century. Many of the computational needs of the average consumer are met by mobile phones, computer-connected TVs, social networking (Facebook, MySpace, etc.), and video-sharing services (YouTube). Plus, a wide range of language programs and websites have been developed so far typified by Earworms, Wikis, Wikipedia, and so on.

Based on this categorization of the brief history of CALL M. Warschauer (1998) introduced three phases of CALL:

Figure 1



As can be seen, these three phases differ from each other according to the year of emergence & use, English teaching paradigm, the principal use of computers, the objectives, and other characteristics. For instance, in the behavioristic phase computer acted as a tutor, delivering content and providing feedback to students on an individual basis, enabling them to work at their own speed and allocating class time for other activities, whereas in the communicative phase rather than being taught directly, grammar was facilitated implicitly and computers were used to improve critical thinking, writing, and interaction. Computers were applied as tools, and the intended language was used exclusively. Lastly, incorporating multimedia and web-based CALL integrative stage focuses on the enhancement of accuracy, fluency, and agency. Besides, the integration of authentic materials to the content helps to develop all language skills and facilitates the teaching environment.

Coming to the CALL programs it can be mentioned that the widely used programs are nowadays:

- CALL-specific software which refers to apps designed for the purpose of improving and promoting language learning such as quizzes, web-based LL exercises, CD-ROMs, and so on;
- Generic software: programs intended for multiple purposes, along with Word, PowerPoint, and Excel;
- Web-based learning apps: e-dictionaries, news/magazines, e-texts, blog, encyclopedias, and others;
- Programs for computer-mediated communication (CMC) contain online chat and email, message boards, and discussion forums.

Furthermore, there are various kinds of CALL activities as well such as multiple-choice quizzes, games, crossword puzzles, online

communication, matching, re-ordering, gap-filling tasks, close and etc.

With these statements, it can be said that CALL programs, platforms, and activities are notable contributions to the comprehension input, higher level of interaction, and meaningful classroom regardless of certain drawbacks.

Methods And Materials

The aim of the survey conducted for this research work is to compare the results of the classes conducted with and without CALL as well as analyzing the opinions of the students on online learning & teaching at Tashkent state university of law. As this very university holds ESP-based instruction, the classes are conducted twice a week for 80 minutes, and overall over the course of the semester, 112 hours are allocated for foreign languages. Besides, there are two midterms and one final work for assessment, and students are expected to gather overall 100 score: 10 points for each midterm and 50 for the final assessment. The level of students' language awareness is different ranging from elementary to intermediate; hence, various supplementary materials are utilized during the lessons particularly for those with a lower level. Importantly, each class has elements of CALL including desktops, laptops, monitors, projectors, speakers and, etc. Also, a variety of CALL activities are highly applied since they promote motivation and group collaboration. However, during the second half of the year 2020 due to the pandemic and strict quarantine, the situation changed to some extent in Uzbekistan as all institutions decided to shift to online teaching delivered by the platforms Zoom and Moodle. In the case of this very university starting from the middle of March in 2020 all the educators were required to hold online classes with their learners due to the severe outbreak of the COVID-19 and; thus, teachers started modifying their strategies, adopting the technologies, and engaging the students in distance education so as to fulfill the current educational needs. In the beginning, only the Zoom platform and telegram app were highly used for the delivery of the lessons as well as the submission of all the tasks. The theme and other main parts of the class were delivered via Zoom & Moodle and the home task part was carried out on telegram, but most of the learners were not satisfied with remote learning at that time because of the several reasons listed below:

- Technical inconveniences;
- No good interaction with teachers and peers;
- Lack of interactivity;
- Virtual learning is challenging;
- No practice and good explanation;
- Lack of preparedness;
- Lack of motivation and, etc.

For these reasons teachers had to integrate different e-materials, programs, activities, and warm-ups with the virtual classroom such as:

- Platforms: Zoom, Nearpod, Moodle;
- For quiz and activities: Kahoot, Socrative, Quizlet, Verso, Wizer and, etc;
- For collaborative and community work: Flipgrid, Padlet
- For presentation: Mentimeter and, etc.

Consequently, learners began attending online classes actively and willingly as well as showing better results in their assessment.

In this research work we attempted to compare the final grades of students during the first (physical learning-based education) and the second semester (wholly CALL-based), and for this research two 1st year groups were chosen and their final grades of both semesters were analyzed.

- **Subjects:**

Two target groups of Tashkent state university of law were engaged in the research including State Law “A 1” and “B 2”. Accordingly, group “A1” consists of 18 students (11 females &7 males), whilst there are 7 female and 16 male learners in group "B2". In fact, most of them hail from Uzbekistan and Uzbek family, and their age differs from 18 to 22. Also, their language awareness ranges from Pre-intermediate to Advanced since roughly all of them hold an IELTS certificate. The two groups were observed for three months in a bid to gather ample data for the research and their final grades were compared with those in the previous semester.

- **Materials and equipment**

As the mode of education is online the content delivery was wholly carried out via Zoom & Moodle and partly Nearpod. All the essential materials were uploaded into these platforms as well as the supplementary handouts. Besides, in order to promote learners’ encouragement to the class and review the materials taught various types of online quizzes, tests and activities were added with the help of programs called Kahoot, Socrative, Quizlet, and Verso. Since handling the pair and group work through online education is somehow challenging we included Flipgrid and Padlet programs as well. It is evident that these programs are genuinely helpful for collaborative involvement because Flipgrid is an effective and accessible video discussion tool that significantly assists the teachers' assessment and learners’ self-evaluation, while the Padlet is deemed to be very handy for both instructors and learners to share the posts and provide feedback. Moreover, to improve their presentation skills we highly tried to utilize Mentimeter which is a brand-new tool to have interactive presentations. All the lesson plans were formed with the inclusion of all of these online materials and tools.

For equipment mostly desktop &laptop, videos, headphones, and online coursebooks were employed.

- **Variables**

For the implementation of the current research, the following was involved:

- The dependent variable- CALL-based classroom. It is the central focus of the research.
- The independent variable- online quizzes, tests, and activities which influences the dependent variable.
- The moderator variable- age, gender, and level of the learners and they have an impact on the content awareness.
- The extraneous variable- is the design and preparedness of the online classroom and they influence the students’ overall attitude to the learning environment.
- Stages

The following stages were done in a bid to reach the final results:

- Observation;
- Inclusion of a variety of online programs and tools into the virtual classroom;

- Comparison of students' final grades of the first and second semesters;
- The questionnaire to know the overall opinion and reaction of learners to the CALL-based education.

Results And Discussion

Over the three months starting from mid-March to the end of May students of these very groups were observed to find out whether they comprehended the topics well via e-learning and during each lesson, various online programs and tools were applied as well. In the end, they took their final test via the Zoom platform and having the results we compared them with those gathered in the offline mode of education.

Results of the final done in the first semester (Overall 50):

Group "A 1"

The mean was determined by adding all the grades of the final we divided them into the total number of the subjects of the group "A 1" in order to gain the standard deviation.

$$\frac{40+37+45+28+33+30+41+40+29+35+37+38+40+41+25+39+40}{18} = 36.4$$

$$SD = \sqrt{\frac{16+1+81+64+9+36+25+16+49+1+1+4+16+25+121+9+16+4}{18}} = \sqrt{27.4} = 5.2$$

The standard deviation was achieved by adding all the "difference squared" numbers and dividing them into the number of learners. Finally, the overall results of the first final of the group "A 1" can be seen below:

Table 1

Central Tendency			**Dispersion**		
Mean	Mode	Median	Low	High	SD
36	40	36	25	45	5

Group "B 2"

The mean was

$$\frac{36+40+41+28+35+28+33+40+41+43+35+29+31+45+32+37+43+28+30+37+28}{23} = 36$$

$$SD = \sqrt{\frac{0+16+25+64+1+64+9+16+25+49+1+49+25+81+16+1+49+64+36+1+64+9+16}{23}} = \sqrt{29.6} = 5.4$$

The overall outcome was

Table 2

Central Tendency			**Dispersion**		
Mean	Mode	Median	Low	High	SD
36	28	36	28	45	5

Gathering the data of the final in the first semester we focused on the grades of the final of these groups in the second semester which was wholly based on CALL.

Group "A1"

The **mean** was

$$\frac{30+41+42+29+28+43+41+33+35+35+40+28+37+28+46+39+29+45}{18} = 36$$

$$SD = \sqrt{\frac{36+25+36+49+64+49+25+9+1+1+16+64+1+64+100+9+4}{18}} = \sqrt{37.7} = 6$$

Table 3

Central Tendency			**Dispersion**		
Mean	Mode	Median	Low	High	SD
36	28	36	28	46	6

Group "B 2"

The **mean** was

$$\frac{29+41+40+28+33+29+39+43+44+38+33+29+30+28+31+}{23} = 35.3$$

$$SD = \sqrt{\frac{36+36+25+49+4+36+16+64+81+9+4+36+25+49+16+9+81+25+0+16+1+16+4}{23}} = \sqrt{27.7} = 5.2$$

Table 4

Central Tendency			**Dispersion**		
Mean	Mode	Median	Low	High	SD
35	29	35	28	44	5

As can be seen, both test results were gained for further comparison; therefore, the outcome is more likely to be compared in Tables 5 and 6.

Group "A 1"- results of both finals

Table 5

Central Tendency				**Dispersion**		
Tests	Mean	Mode	Median	Low	High	SD
Final 1	36	40	36	25	45	5
Final 2	36	28	36	28	46	6

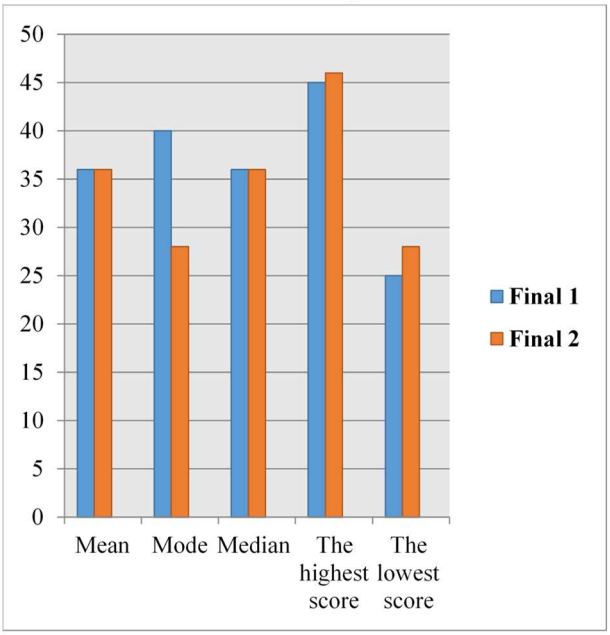
Group "B 2" -results of both final 1 & final 2

Table 6

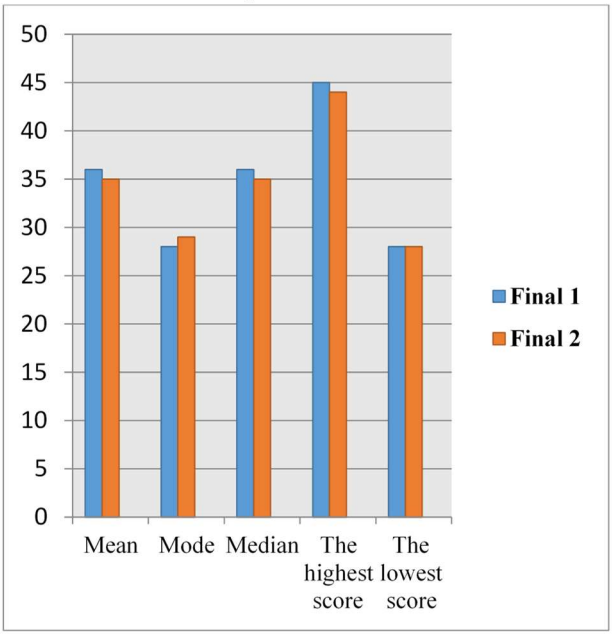
Central Tendency				Dispersion		
Tests	Mean	Mode	Median	Low	High	SD
Final 1	36	28	36	28	45	5
Final 2	35	29	35	28	44	5

Figure 2 &3. Overall results

Group "**A 1**"



Group **"B 2"**



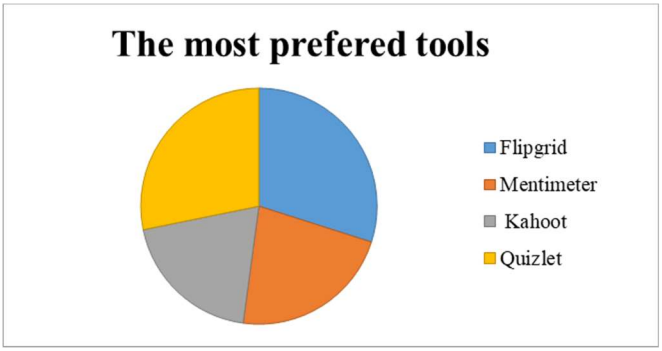
Taking all the statistics into account, it could be concluded that the disparity between both final results of the groups was not so noticeable since the mean remained almost at the same level in both figures at over 35 scores, whereas there was a substantial difference in the mode of the first group indicating 40 and 28 respectively. Likewise, being over 35, 45, and 25 accordingly roughly the same numbers were shown in the media as well as the highest and lowest scores of both groups. In sum, it is apparent that the inclusion of various online programs, apps, and activities significantly helped to overcome the difficulties that emerged during the pandemic and create interactive teaching and learning environment.

Having analyzed the outcome of the final grades the second step was devoted to the online questionnaire conducted among two groups (41 students) at the end of the study year so as to know their perceptions on online learning. More precisely, the questionnaire was designed on Google forms and contained 30 various questions ranging from open-ended, rank order scaling, multiple-choice to dichotomous questions. The questions like "Are you satisfied with online learning?", "What programs and platforms did you like more during online education?", "Do you think that distant contact with the teacher

was a major disadvantage of the remote learning?", "Has online education affected your way of learning?", "What activities conducted via online tools did you favor more?" were asked.

In the analysis, we focused on more central questions in a bid to present the final results. Looking at the responses, it can be stated that as most of them came from remote areas they underwent some challenges during online education such as unstable internet connection, no real talk with teachers and friends, and so on. However, starting from the second month of this very education nearly 50 % showed an ardent interest in using those online platforms and programs due to safety reasons, additional time for revision, and better computer literacy. Besides, they learned different online activities and games through various programs and apps which might help in their future studies and a third found the videos uploaded by the educators very beneficial and effective as they could learn at any time apart from the class and take notes for further assignments. When it comes to programs/ platforms and tools they liked more during the remote learning almost half preferred studying via Zoom and telegram rather than Moodle. From this point, we opined that the integration of several platforms probably seemed the burden for them. However, Flipgrid, Mentimeter, Kahoot, and Quizlet were favored by the many (35, 26, 23,33 respectively). The following figure portrays the number of responses for the preferred tools during distance learning:

Figure 4



Admittedly, although the validity and reliability were partly achieved due to the minority of all the university students attended in the research, the data gathered would be applicable for further analysis.

Conclusion

It is undeniable that entirely CALL-based education is a new experience for both learners and teachers due to the abovementioned reasons. Although most students and teachers were confronted by many challenges during the pandemic in terms of education, work, and other realms they attempted to adapt to the current situation and changes. In the case of Tashkent state university of law, to accept the education wholly relied on CALL was a moot question at first; however, the authority decided to shift to the online mode of education in order to avoid the adverse results of the pandemic. Hence, all the teachers were specially trained to teach online employing various innovative methods with the involvement of new appliances. Indeed, it influenced the way of learning of all the students both positively and somehow negatively. To learn the effect of CALL-based learning-teaching this very research was implemented with the help of the observation and the questionnaire. As a result, it was found that no significant difference was witnessed between the online and offline mode of teaching and most

learners embraced remote education thanks to the engagement of a wide range of online programs, tools, and activities. Lastly, the findings of this current study can be regarded as a significant motivator for academic stakeholders to apply more brand-new CALL programs and appliances in all institutions.

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