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THE IMPACT OF PODCASTS DESIGNED THROUGH AUDACITY ON IMPROVING GRAMMAR SKILLS

Abstract. The situation with the pandemic in the world showed that education in Ukraine will never be the same. Isolation turned out to be a big challenge for both teachers and students. This is explained primarily by a lack of theoretical knowledge and practical experience in providing distance learning. According to the EU recommendations, the education institution will work effectively if it provides the best use of digital technology for teaching and learning and develops teachers' and students' digital competences and skills. Educational technology tools include content management systems, language learning apps, podcasts, and electronic discussion boards. The features of free, open-source, cross-platform audio software Audacity are described in the study. The paper analyzes how a university teacher can record, edit and export in MP3 format the language learning podcast through Audacity. To answer this question, we created 5 bilingual grammar podcasts based on the audio platform. The designed podcasts can be used as learning activities outside the class with the university students. The obtained results showed that even a beginner in the sphere of ICT can design a good-quality foreign language podcast. The difference between the scores in pre and post-test results suggest that self-designed podcasts can be used in teaching EFL to improve grammar skills. This study emphasizes the need for implementing ICT tools in the educational process to improve the quality of teaching and learning and to share the gained experience with the colleagues. Further research could determine the role of self-designed podcasts in an online language course for the students of technical universities.

Keywords: Audacity; podcasts; digital literacy; features; instructions; grammar skills

Introduction. Today's learning process depends on digital technologies. The European Commission works at ICT promotion and digitization of schools and universities. On 17 January 2018, the Communication on the digital education action plan has been adopted. This document outlines in what way the EU can help the educational institutions to work effectively in the digital era by:

- Making better use of digital technology for teaching and learning;
- Developing relevant digital competences and skills for the digital transformation;
- Improving education through better data analysis and foresight. (Digital learning and ICT in education, [online:] <https://ec.europa.eu/digital-single-market/en/policies/digital-learning-ict-education>).

Communication on improving and modernizing education was signed on 7 December 2016 in Brussels. According to this document “quality education is much more than an economic investment”. Even though “Globalisation and technological change opens up new possibilities, for education and work” and “digital technologies will also offer new ways of learning provided that there is adequate access to these technologies”, “only a quarter of the school children in Europe are taught by digitally confident teachers”. The focus of the present Communication is on stressing the quality of teaching and academic staff in Higher education as a key factor to improve quality in higher education. In what way the EU can support universities and help to improve and optimize digital learning? The EU funds or co-funds provide different programmes that support technologies for learning and teaching. One of the famous programmes is Horizon 2010 that covers the issues of digital learning and teaching.

The most progressive Ukrainian universities are being digitally transformed now. Universities provide blended learning, university students and teachers participate in online courses. According to OER (open educational resources – an online educational library that is freely available for teachers and students to use, adapt, share, and reuse), there are more than

15 online platforms such as Future learn, Academic Earth, Bridge to Success, Coursera, EdX, Learning space from Open University, OCW Utah, Miriadax, Open to study, Open courseware, Saylor. Org., Open Learning Initiative, Noba – Psychology Modules, OERu. The statistical data analysis of registered users made it possible to outline the top five MOOC platforms. They are:

- Coursera — 37 million;
- edX — 18 million;
- XuetangX — 14 million;
- Udacity — 10 million;
- FutureLearn — 8.7 million.

Most Ukraine regardless of the region and focus, actively use e-learning technologies and work to create a single internal strategy of the university. First of all, it considers creating the bank of open educational resources or, in other words, university repository. The impact of open resources on existing teaching practices is rather strong. Educational workers promote the importance of open web resources by encouraging their colleagues to use the potential of the network in their practice. As far as the students are concerned, they complained about outdated textbooks and notes, so they had to look for materials in various open sources, adapting the information to their educational needs. As a result, students started using web resources as a preparation for their core academic disciplines, and continue to use them as an auxiliary tool.

Second of all, the digital university has more chances to be successful and have more students not only within one country but at the international level as well. Consequently, the ability of a university to adopt innovations and develop ICT shows the readiness of an educational establishment to change for a better quality of education. Modern technological initiatives, as a rule, are generated by each department and the university teacher in particular. That is why strengthening teacher's digital literacy is very significant for university competitiveness.

With the rapid growth of preventative responses towards the COVID-19 break, digital learning became trendy. I teach English at the Foreign languages Department of State Agrarian and Engineering university in Podillia. As a rule, each language teacher of our departments has created an online course of the discipline he/she teachers in Moodle. However, in everyday practise we use up-to-date language learning tools to increase student's performance and motivation. We have experience of using comics in the EFL classroom (Chaikovska, 2018). During 2018-2019 academic years we used podcasts in EFL learning with the engineering students (Chaikovska, Zbaravska, Bilyk, 2019). Recently, it has been experimentally proved that learning new words through Quizlet can significantly improve students' vocabulary acquisition.

Analysis of recent research and publications. The fact that foreign academics were pioneers in the implementation of innovative teaching tools and podcasts as well, is undeniable. They claim that podcasts provide positive students' attitude towards learning (Chan, Chi, Chin, 2011; Fernandez, Simo, Sallan, 2015; Golonska, Bowles, Frank, 2014), behaviour and self-efficacy (Kavaliauskienė, Anusienė, 2009), this innovative mobile technology may offer a rich input through authentic speech (Edirisingha, Salmon, 2007) and raise language awareness, allow learners to carry out homework assignments at their own pace and under non-threatening conditions (Istanto, 2011). Some scientists designed the pedagogical models for podcasts in higher education (Al-Qasim, Al-Fadda, 2013) described the procedure of implementation podcasts with the students of engineering High School and experimentally proved the efficiency of podcasts in improving listening comprehension and speaking performance (Chaikovska, 2018). Scientists suggest "that simultaneous reading and listening, repetition of words; vocabulary and grammar activities can offer numerous benefits

to learning English". They are sure that "such characteristics of podcasts as authenticity, multi-functionality, ability to motivate, flexibility and quick-absorbing of information make it a very perspective teaching strategy" (Chaikovska, 2018: 145).

Unresolved aspects of the problem. The analysis of the reviewed studies on podcasts in EFL learning with the university students showed that research papers deal, primarily, with characteristics of podcasts as a learning tool, EFL podcast instructions with the students of different majors and benefits of language teaching through podcasts. However, the research on the strategies and platforms that can be used for making own podcasts is still lacking.

The aim of our study is determining the main characteristics of free, open-source, cross-platform audio software Audacity and examining how to record, edit, and export a simple audio podcast through this platform. Evaluating the efficiency of using grammar podcasts created through Audacity in improving grammar skills also goes beyond the aim of the present paper.

Research results. There is a wide range of software that can be used to record and edit self-made podcasts. They are Audacity, Free Audio Editor, GarageBand, Adobe Audition PC, Acoustica Basic Edition, Sound Forge, Cubase. Having compared the mentioned software platforms we can conclude that only the first three programs are free. The rest of them are more like professional recording studios that have not easy to use interfaces and a lot of functions the beginners don't need. If we focus on free software platforms for creating podcasts like Audacity, Free Audio Editor, GarageBand, the last one is the application for musicians. Audacity in comparison to Free Audio Editor is a powerful and multifunctional software with the user-friendly interface (USB microphone and audio interface, for example, are located in the main box for quick access). Although it is not a platform for professional musicians, Audacity has enough instruments to remove noise and improve the sound. There is one more platform that can compete with Audacity in the context of the examined features is Reaper. However, this software has a complicated user interface and MIDI editing functions for recording high-quality tracks. It operates almost at the same level as standard digital audio stations (DAW) like Cubase, for example, and is also paid. That is why we decided to start with a high-quality application with an easy interface.

Audacity is a free software that was developed by volunteers. There is a wide range of online tutorials and frequently asked questions in Audacity forum for a beginner. As soon as a user opened Audacity site available at <https://www.audacityteam.org/download/>, he/she can download Audacity for Windows. The main features of this cross-platform are:

- Recording (can record live audio through a microphone or mixer, or digitize recordings from other media. With some sound cards, and on any recent version of Windows, Audacity can also capture streaming audio);
- Export and import (it can import and export sound files, edit them and combine them with other files or new recordings in different file formats);
- Sound quality (In Audacity tracks with different sample rates or formats are converted automatically in real-time);
- Editing (Audacity edits and mixes large numbers of tracks, multiple clips are allowed per track);
- Effects (Generates tones, silence, noise, instruments or rhythm track, Change the tempo without altering the pitch, Noise Reduction to remove static, hiss, hum or other constant background noises) (Audacity, [online:] <https://www.audacityteam.org/download/>).

To create the foreign language podcasts we had to follow the instructions. First of all, one should install the programme "Audacity" on the computer. For example, if you are a window user the Audacity for window 2.3.3 can be downloaded at <https://www.audacityteam.org/download/>. It should be mentioned that we checked the

programme for viruses and arrived at the conclusion that Audacity can be installed without any risks.

As soon as you have the programme on your computer a new empty audio project is ready for work. Figure 1 illustrates the screenshot of audacity interface with a chosen name for the podcast.

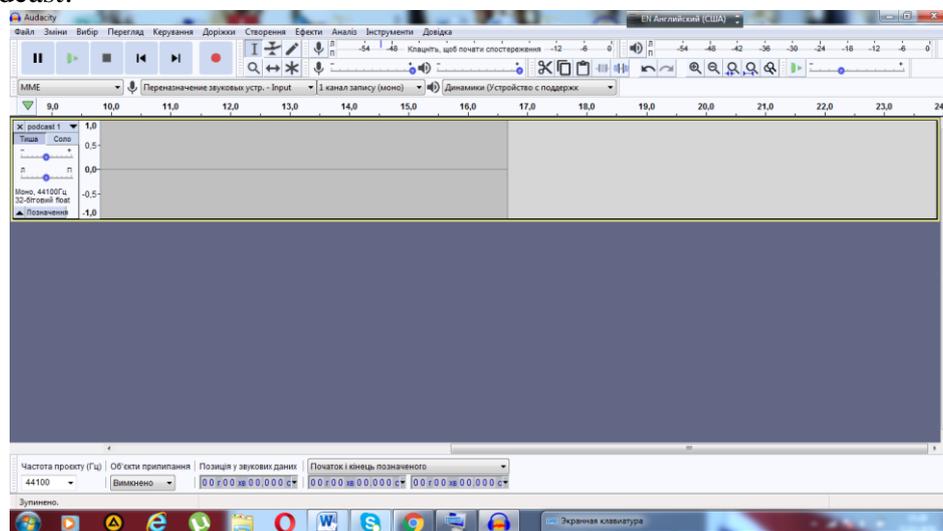


Fig. 1. Audacity interface

Before starting recording the podcast we advise to choose the input device area and make sure the microphone is plugged-in. The desirable format for audacity is 16-bit 44Hz. We recommend recording the podcasts with mono and in mono, it means that the voice will be heard from left-hand and right-hand sides.

The process of recording the podcast is rather simple. Audacity starts recording the information in the waveform after pressing the button "record". Figure 2 shows how the recorded podcast looks like.

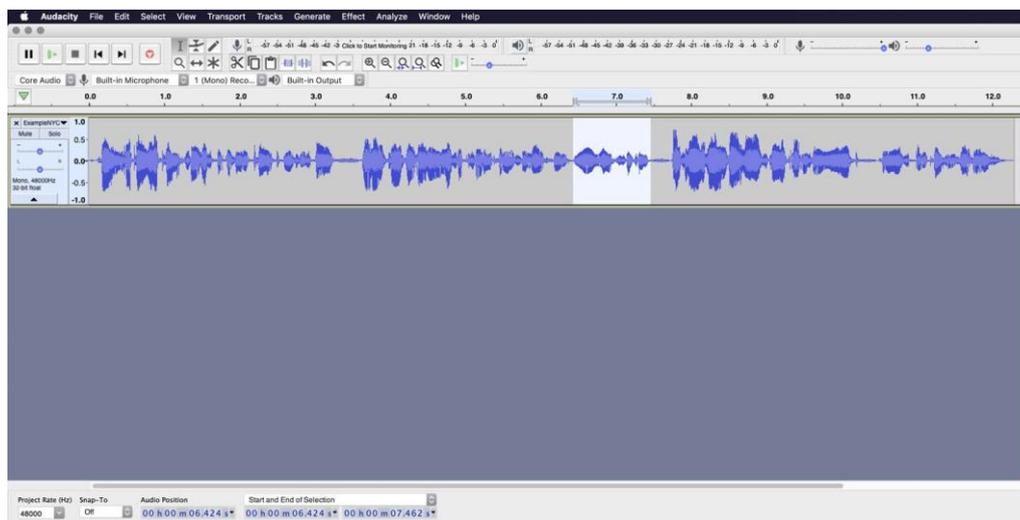


Fig. 2. Podcast recording in the waveform

Before editing the created podcast we may clear up the audio fragment with "Noise reduction", cut out the unnecessary object selecting and deleting it.

If you want to save the podcast, the programme will ask you whether you are going to save the project. If so you'll have to export the file to your computer in MP3 format. The instructions for creating podcasts through Audacity are rather simple and can be used by

beginners. The question is in what way making foreign language podcasts can benefit language learning. It's undeniable that one of the main characteristics of educational language learning podcasts is authenticity. However, creating EFL podcasts through Audacity is supposed to be done by Ukrainian university teachers. Consequently, such podcast feature as authenticity loses its relevance. Let us consider the advantages of EFL podcasts created by Ukrainian teachers via Audacity for the foreign language classroom. We created 5 podcasts and they concerned such grammar topics as Irregular nouns, Irregular verbs, Irregular adjectives, Phrasal verb look and Phrasal verb get. We took advantage of the possibility to edit multilingual podcasts. The digital format of podcasts that attracts most students, the ability to hear the translation and explanation remarks in the native language and the possibility to listen to this audio tool in suitable for students time can certainly benefit EFL learning. These podcasts were used with the third-year students majoring in Electrical engineering (n=14). They had to revise for the state English exam to participate in the Master program. Considering that the students were busy with the final exams and short of time such podcasting format was helpful. Thus, they were asked to listen to appropriate grammar podcast not less than 5 times at home. To test the efficacy of using podcasts designed through Audacity "gain in scores" method was applied. Both tests were focused on grammar and contained 25 multiple-choice questions. The pre-test was completed by the students at the beginning of the autumn semester and, consequently, the posttest was given at the beginning of the spring semester. Each correct answer was awarded one mark.

Tab. 1

The difference in scores in grammar pre- and post-tests

A subgroup of third-year students	Pre-test	Post-test
(n=14)	8.21	11.85
Difference	+3.64	

First of all, we calculated the average mean scores for the subgroup in pre and posttest. Second of all, to detect the differences between treatment effects we used the following equation: $Difference = (Posttest - Pretest)$. There was a small but significant difference in students' achievement in pre- and post-tests on grammar learnt through podcasts. Improving students' score from 8.21 to 11.85 demonstrates a gain in grammar skills. Therefore, the implementation of the podcasts recorded through Audacity in EFL classroom assists in improving students grammar skills.

Concluding remarks and future work. E-learning and implementation of ICT tools in the university classroom are becoming more and more popular with universities all over the world. Moreover, the risk of severe disease associated with COVID-19 infection for people showed the urgent necessity to raise awareness of technology among the population. First of all, it concerns the educational sphere. This seems to confirm the idea that visibility and competitiveness of the university depend, among other factors, on teacher digital literacy. University teacher should easily switch from face-to-face learning to online classes and develop online courses. For optimal learning educators should experimentally prove the effectiveness of ICT learning tools. Moreover, best teaching practices should be discussed and implemented in the educational process. Designing language educational podcasts through Audacity makes it possible to present learning material in a new digital format. Further research will concern the experimental design of creating podcasts through Audacity for extra curriculum language classes.

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ВПЛИВ ПОДКАСТІВ, СТВОРЕНИХ ЗА ДОПОМОГОЮ AUDACITY, НА ВДОСКОНАЛЕННЯ ГРАМАТИЧНИХ НАВИЧОК

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Анотація. Ситуація з пандемією грипу показала, що освіта в Європі, зокрема в Україні, зазнає змін найближчим часом. Ізоляція, а разом з нею і перехід на дистанційне викладання та навчання виявилися великим випробуванням для викладачів і студентів. Це пояснюється, у першу чергу, нестачею теоретичних знань і практичного досвіду у сфері дистанційного навчання. Згідно рекомендацій ЄС, ЗВО буде ефективно працювати лише тоді, коли

цифрові технології активно використовуватимуться у навчанні і викладанні, а також увага приділятиметься розвитку цифрових компетенцій викладачів і студентів. Освітні технології це – веб-системи управління контентом, додатки для вивчення мов, подкасти, електронні дискусійні панелі. У статі розглянуто характеристики крос-платформного аудіо забезпечення відкритого доступу під назвою «Audacity». У дослідженні проаналізовано етапи створення мовного подкасту: запис, редагування та експорт у форматі MP3 подкаст на платформі «Audacity». З метою перевірки процедури запису подкастів, ми створили 5 граматичних додатків на основі аудіо-платформи, які можна використовувати як на практичних заняттях з іноземної мови, так і під час самостійної роботи студентів. Одержані результати показали, що початківець у сфері ІКТ може створити подкаст гарної якості. Результати дослідження вказують на те, що вивчення граматики на основі створених подкастів сприяє розвитку граматичних навичок. Це дослідження підкреслює потребу застосування ІКТ-інструментів у навчальному процесі з метою підвищення якості викладання і навчання, а також активного розповсюдження набутого досвіду. Подальше дослідження могло б визначити роль мовних подкастів в он-лайн курсі «Іноземна мова» для студентів технічних університетів.

Ключові слова: Audacity; подкасти; цифрова грамотність; особливості; інструкції