Технологии, иновации, интеракции

Taking advantage of technologies: using a multi-platform tool for formative assessment in English language classes

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Anotácia: Žijeme v období pokročilých technológií, kedy je každá stránka našich životov istým spôsobom spätá aj s vedou a technikou. Neustály rozvoj v oblasti technológii spôsobuje revolúciu aj v oblasti edukácie. Nielen nižšie stupne vzdelávania, ale aj samotné univerzity sú vďaka, v súčasnosti už bežným zručnostiam súvisiacich s využívaním služieb dostupných cez počítačové platformy, technologicky vyspelým miestom. V tejto súvislosti je možné sledovať aj posuny v metódach formatívnej evalvácie, vďaka ktorým je v súčasnosti pre učiteľov testovanie, okamžité vyhodnotenie výsledkov a analýza dosiahnutého skóre menej náročné než kedykoľvek predtým. Inovatívne prístupy vzdelávacích inštitúcii k procesu edukácie je jedným z primárnych aspektov charakteristiky moderného vzdelávacieho prostredia. Samotný hodnotiaci proces poskytuje pedagógovi informácie o tom, čomu študenti porozumeli, a čo sa naopak, javí ako problematické. Takéto hodnotenie je preto vnímané ako dôležitý zdroj informácii v pomoci študentom zlepšiť ich vlastný študijný výkon. Rovnako poskytujú učiteľom spätnú väzbu, ktorá im pomáha v rozhodovaní, či je potrebné sa k problematickým položkám opätovne vrátiť. V súčasnosti je jedným z takýchto online dostupných nástrojov Socrative – interaktívny, multiplatformový systém, pracujúci v reálnom čase a klasickom rozhraní. Ide o užívateľom jednoducho ovládateľný nástroj umožňujúci študentom odpovedať na otázky učiteľov prostredníctvom akéhokoľvek zariadenia s prístupom na internet. Hoci je zrejmé, že učitelia vnímajú používanie multiplatformových nástrojov ako vysoko efektívne, pozornosť by mala byť rovnako upriamená aj na to, ako tento nástroj vnímajú samotní študenti. Príspevok ponúka výsledky štúdie, ktorej cieľom bolo cez kvalitatívny výskum získať dáta popisujúce percepciu multiplatformného nástroja Socrative študentmi v kontexte technicky zameranej univerzity.

Kľúčové slová: technológie, formatívne hodnotenie, Socrative

Abstract: We live in an era of advanced technology, where every part of our daily lives is by some means related to science. Rapid technological advancement is also clearly revolutionizing the environment in which education takes place. Not only common educational stages as subdivisions of formal learning but also universities are considered to be technologically advanced places predominantly due to the by now common skills relevant to using services accessible via a computer. In conjunction with the rapid development of technology, the shifts in formative assessment methods are also observable. Currently, it is less challenging for teachers to administer a test, instantly evaluate the results and analyze gain scores than ever before. Innovative technology-based formative

assessment constitutes a component of what characterizes any modern classroom environment. It provides essential information about what students have understood and what they do find problematic. This means the assessments are also considered valuable guides in helping students to improve their performance. By the same token, teachers can use them to determine if any further instructions are necessary. One of the presently emerging technologies is Socrative, an interactive, real-time, multi-platform tool marketed as a free and user-friendly online system that empowers students to answer questions posed by instructors using any device connected to the Internet. Even though it is obvious that teachers recognize the use of multi-platform assessment tools as highly efficient, there is still necessary to point out that attention should similarly be directed at students' perceptions. This paper presents the results of a study the aim of which was the qualitative investigation of students' perceptions of using Socrative in a university environment.

Keywords: technology, formative assessment, multi-platform tool, Socrative

Introduction

The amount of information to be circulated within the educational system is steadily increasing and the need to look into how students processes information in the course of learning activities is losing its fundamental position. The period of time during which the particular knowledge acquired is usable is, to a great extent, shortened. This reality pressures students to advance in such skills as will lead to turning the passive learner into an autonomous one. All the above mentioned facts considered, where conception of the content and design of the foreign language learning courses is concerned, modern pedagogical principles and active forms of teaching with the systematic application of modern technologies are preferred at the Institute of Lifelong Learning, University of Žilina. Modern technology in education is not only related to the subject of information transfer but it is also influenced by standardized formative assessments. In a language teaching scenario, the regular test is perceived as a tool that is to be used for the purpose of revealing the potential of a student. It is crucial to recognize, at all stages, that the intent of classroom formative assessment is to offer students insights into their successes rather than condemn them for what they have not yet grasped. Conducting assessment in a traditional oral or written manner is seen, mostly by teachers, as a time-consuming operation. This problem is principally solved by the application of ICT that has led to the automation of the assessment processes. Investigating student understanding through online formative assessment multi-platforms gives a teacher valuable data on what particular students have learned and the opportunity to use said data to modify the instructions, approach, methods, content or design of the course. When teachers are acquainted with what their students have learned and what they

have not, they should have the power to effortlessly modify the aforementioned aspects of the course to meet the needs of their students. Educational practices should be flexible and responsive to the strengths, needs and learning preferences of students. Moreover, online assessment tools are seen as aids that help students to work self-reflexively, having cognizance of which stage they are currently at and where they need to be as students attending undergraduate university courses of English.

Socrative: an instant insight into student learning

Socrative is a mechanism marketed as a classroom response system. A CRS is described as a system allowing teachers to quiz their students for the purpose of collecting responses to any questions posed. In a non-technical educational environment, to some extent it is very similar to the situation in which the teacher is expects their students to raise their hands to show knowledge of the question at hand.

It is also known that in the past, instead of computer terminals or smartphones, "transmitters", "remotes" or in other words "clickers", small, handheld units that were intended to increase student participation and engagement in class by allowing students to easily respond to an instructor's multiple-choice question, were used (Deal 2007). The most basic advantage of a CRS over traditional non-technical contraptions is the potential of the system to broaden student participation. Where a non-technical procedure aiming to gather answers to a question requires a certain amount of courage and extroversion, multi-platforms similar to Socrative play a significant role in removing such obstacles. In many cases, students also have the opportunity to discuss a question with the people sitting next to them before answering. Another benefit is the immediate feedback the mechanism provides to both students and teachers by way of colored response graphs that can be displayed overhead in order to allow the class to see their either correct or incorrect responses. The systems themselves can also store the data collected for additional or extra analysis and assessment (Cain, Black, Rohr 2009). We should not omit to mention that clickers were used in a number of ways. In terms of education, this mechanism allows the teacher to monitor student attendance and participation and to increase or measure attention during a teaching class, which means that the teacher is allowed to investigate and evaluate the extent to which assignments are completed. What is more, the teacher obtains real-time information about the perception of a concept discussed. Regardless of foregoing, clickers were rather popular in the past. However, they were replaced by computer-based educational

software and smartphone applications. Currently, there are the ways for students to access free Wi-Fi terminals so that it is comfortable for them to operate their personal devices, which are also portable, connectable and always easy to use. According to our data, that is what made the so-called clickers obsolete and why these were replaced by online formats, which are now gaining popularity (Boscardin, Penuel 2012; Caldwell 2007; Fies, Marshall 2006; MacArthur, Jones 2008). One such platform is Socrative – a free, interactive, real-time multi-platform that enables teachers to create quizzes, tests, polls and educational activities that are to be used to monitor and assess students' responses and their progress in real time by giving them immediate feedback. The teacher is able to adjust the focus and the pace of a seminar/lecture and help students to identify areas that they consider as requiring improvement. The key advantages of Socrative are its intuitiveness and its accessibility to a range of devices – computer terminals, laptops, tablets, smartphones, etc. (Tirlea, Muir, Elphinstone, Hyunh 2018). For a teacher to use the services offered by Socrative, they have to register, which can only be done online and free of charge. Once the procedure is done, access to the virtual environment, where tasks for upcoming educational activities can be prepared, is granted. Whereas it is apparent that teachers highly appreciate the services that Socrative offers, it is not possible to analyze students′ perceptions of the application of this online testing service.

Methodology, measures and instruments

This piece of research itself was conducted at the Institute of Lifelong Learning, University of Žilina, Slovakia, where Socrative as a formative assessment tool was pilot-tested for the period of the 2017-2018academic year. The sample was composed of 187 undergraduate students recruited from the ESP courses in which the online formative assessment tool Socrative was implemented and tested. At the end of the summer term, participants were asked to complete an online pre-arranged survey, which was intentionally designed to gather appropriate information via three open-ended qualitative data items.

1.What did you like about using Socrative as a tool for formative assessment?

2. What did you dislike about using Socrative as a tool for formative assessment?

3. If you could change or improve anything about Socrative as a tool for formative assessment, what would it be?

Since analyzing qualitative data might be a challenging task, we have decided to apply thematic analysis as a tool that allows to get insight into the data collected. The method itself

enables researchers to conduct more a granular analysis. The method is described as a procedure consisting of six steps: data familiarization, initial code generation, theme searching, theme revision, theme definition and naming, and reporting (Braun, Clarke 2006).

The first open ended qualitative data item *„What did you like about using Socrative as a tool for formative assessment?"* is analyzed below.

The most crucial themes identified were the those of the immediate final score and the errors made. Students were no longer forced to wait for teachers to evaluate their tests manually and make the results accessible for students to see. A number of students shared this opinion, affirming that they like seeing the results once the test is finished. To illustrate this, we have cited some responses.

„There is no need for me, the student, to wait for my teacher to mark the test. I know the final score immediately after the test has finished. That is a tremendous plus."

„The teacher always allows me to view my test performance just to check the type of errors I have made."

„Showing us the incorrect answers and assessment total score is useful and really credible feedback for the whole group."

„When the test is completed, I appreciate that my teacher comment on the mistakes the group made with a view to improved language use in the future. We cannot improve if we do not these."

The second open-ended qualitative data item was *What did you dislike about using Socrative as a tool for formative assessment?*

A set of negative characteristics of online testing were mentioned by the sample of students. The first and the one that students perceived to be the most apparent was the strength of the Wi-Fi connection in the classrooms where they were supposed to take the test. Even if Socrative is accessible across a range of devices, some students do not own the type of smart device that would allow them to access it.

„Although we were told which of the university Wi-Fi connections to use so as to prevent the connection failure, we used our own mobile data."

„To be honest, the university Wi-Fi connection is not reliable at all. I was really afraid of losing the internet connection while completing the test. How about the computer labs the university has? All students could be safe then.

„I do not have a smartphone so how could I access the test without having it?"

„I am among those who, naturally, do not need a smartphone. I do not own one and I plan to keep it that way."

„Smart device? Never had and likely never will have one."

„I do have a phone but with limited functionalities."

„Socrative itself is OK but my phone's screen is really small in size. It took me ages to fill in the test in the app."

The third open-ended qualitative data item *If you could change or improve anything about Socrative as a tool for formative assessment what would it be?* is analyzed below.

Legitimately, a devoted teacher should also focus on the perception of innovations that are in the process of implementation and that may support certain positive outcomes of learning processes. The most important suggestion that emerged was to run the assessment in university computer labs that feature many personal-computing workstations with a variety of applications and a number of specialized software packages. Lab consultant staff that can assist teachers and students with computer problems is also generally available.

„We have labs that are managed by the ICT department. Why not to ask the department for the permission to run the mid-term and final tests there?"

„If labs were used, all of the students would enjoy the same performance conditions. No differences in screen sizes and operating systems. And what is more, the connection problems would be fixed. Problems with technology are likely possible but less probable."

„Using PCs would be highly appreciated."

„PCs are always an advantage for a test-taker good at typing. It is much faster to fill in an answer."

„Using a computer terminal could be more convenient for students who have to access the test."

Conclusion

It is beyond doubt that, at the tertiary level, teachers are supposed to have an ultimately strong commitment to good student results. Hence, professional teachers should also devote themselves to the approach of implementing technologically advanced solutions meant to lead to better learning outcomes. If teachers want their students, who are assuredly digital natives, to be positively inclined towards the language courses, they need to consider the option of implementing such advanced technology as would support students and their approach to studying. Overall, our research findings showed that Socrative is,

perceived as an effective tool for online testing by tertiary-level students. However, system upgrades are still needed and computer labs are to be considered.

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