Testing the Generation of Digital Natives: Implementing SRS as a Mechanism that simplifies Classroom Assessment

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Abstract.
Quick advancement of technology is noticeably transforming the educational environment, language teaching including. Universities are technologically advanced places than ever before and the majority of them have the capability to access the online platforms and services using computer terminals or other devices. Along with the technological growth the teaching and assessing approaches are also being transformed. Exempli gratia, it is now less demanding to apply a survey or a test, instantly aggregate the results and analyze them more quickly than decades ago. One of the presently emerging technologies is a web-based student response system, which is also commonly referred to as a clicker. Most SRSs allow the teacher to gain, export and save response data for further analysis and assessment. Moreover, some systems are also compatible with certain course management systems. This integration allows the teacher to track student responses over the course, which simplifies the whole classroom assessment process. Although it is obvious that teachers and instructors highly encourage the use of clickers as assessment tools, we can't turn our backs to a clear need for further study and investigation of students′ perceptions related to online testing. This study contributes to current research by providing some additional insights into the use of SRS as a mechanism that simplified classroom assessment at the University of Žilina.

Keywords: clickers, assessment, student response system, online tests

Introduction

As a supporting element of the transformation of the different phases of the educational process, elements of information and communication technologies are being nowadays implemented on a frequent basis. Apart from the other characteristics of electronic devices, in particular, the technical parameters and capabilities are those that make the digital multimedia an ideal tool for learning.

The amount of information to be disseminated is constantly growing in volume, and its absorption in the learning process is losing its central position. This dominance gradually takes up the development of the student's abilities to learn. From the point of view of usability and time the acquired knowledge is increasingly shortened. This fact forces the development of such skills of the students that enable them to change the role of a passive learner to active one. Considering this fact, in the creation of content and designing the organization of foreign language learning courses, modern pedagogical principles are currently used at the ILL, and active forms of teaching with the systematic application of modern technologies are preferred, thus changing the position of a teacher. From the traditional role to the role of the facilitator that shows the way how to gain, process and apply knowledge correctly. Information and communications technology in education does not interfere only with the transfer of information, but also it penetrates the area of standardized assessments.

Standardized assessments are considered to be an indispensable and important phase of the learning process, where comprehensive insight into the score of individual participants in the learning process is acquired. Conducting the assessment in the traditional manner – either oral or written - is viewed as a time-consuming process. This problem can be solved by the use of ICT that lead to the automation of processes. Teachers can investigate student understanding through formative assessment and get valuable data on what and how the particular student has learnt, and then use that exact data to transform the instruction. When teachers know what students know and what they did not learn, they can easily adjust to meet students' needs at their level. The best formative assessment tools also help students self-reflect, figuring out where they currently are and where they should or rather need to be as university students. There are formative assessment apps for almost everything.

SRS: a great tool for the Instructors

A classroom response system is any system used to poll students in order to collect critical feedback in response to question posed by instructors in a setting where student and instructor share the same physical space.

Comparatively, a non-technical exemplification of the system is an instructor forcing students to raise their hands in order to show their agreement or disagreement with a given question. To some extent, a bit more sophisticated method involves the use of tinted purposeful cards, where each coloration associates with a possible response. Over the past period, technologists have had the response systems allowing students to key in responses using transmitters, also called "remotes" or "clickers" (Deal, 2007). The fundamental benefit of computerized response systems over non-technical procedures for obtaining feedback are the anonymity of responses, and the capability to display the multicolored response graphs overhead for the students to see the visual representation of their responses. These response systems can also store the data for supplementary analysis and assessment (Cain, Black, & Rohr, 2009). Additionally, there are three categories of implementation of SRS: presentation and questioning, student response and display, and data management and analysis. Moreover, at the most basic level, classroom and/or student response systems provide a role of mechanism that allows the instructor to monitor the students, for instance to take attendance, to assure a certain level of participation, and to increase the attention of students during the lecture or seminar. Conjointly, the instructor might investigate the accomplishment of assignments given through posing fundamental questions to manifest whether students fulfilled the given task. Secondly, the instructor using SRS is able to gather real-time information about the apperception of a concept being discussed. According to the responses gathered, the instructor is able to decide whether any extra time explaining a subject matter is needed, or if the bulk of the students understands the content of the lecture or seminar, allowing the instructor to set the pace of instruction with apparent evidence of students' comprehension or confusion. Thirdly, the use of SRS is related to a transfiguration of teacher's approach involving the cycles of questions and responses, followed by periods of discussions and logic interpretations.

Despite of aforementioned facts, clickers were definitely popular in the past decades, but they were dimmed by the rapid improvements in computer-based educational software and applications. Presently, universities provide the free internet connection pathways so that students use their own portable, connectable and always easy to use devices. This is what has made the conventional clickers outmoded.

Online forms of "clickers" are now gathering the popularity (Boscardin & Penuel, 2012; Caldwell, 2007; Fies & Marshall, 2006; MacArthur & Jones, 2008). Socrative – a cloud-based student response system is considered to be one of such multi-platform apps. One of the key attributes here is that Socrative dispose of such user interface that allows users to interact with electronic devices in a smooth and easy-to-use way. Likewise, the multi-platform is accessible across a spectrum of apparatus. To provide the instructor with the services of the platform, the instructor is called to undertake the registration procedure, which takes place exclusively online on the website and is free of charge. The process by which an individual gains access to the Socrative account by identifying and authenticating himself via entering user credentials is done here in the form of the username and a matching password. Then, the instructor is given the access to the virtual room where the educational tasks for upcoming seminars, lectures or tests are being prepared.

Socrative is viewed as a digital tool with a unique potential. Per contra, there is limited research that has been conducted focusing on the investigation the benefits of Socrative as a tool for formative assessment. Although it is obvious that teachers and instructors highly encourage the use of clickers as assessment tools, we can't turn our backs to a clear need for further study and investigation of students′ perceptions related to online testing.

Methodology

The investigation itself was conducted at the University of Žilina, Slovakia, where Socrative was implemented and pilot-tested for the period of the academic year 2017-2018. Specifically, Socrative was fully utilized as the computerized response systems for formative assessment and obtaining feedback in courses of English language for specific purposes. The courses were attended by students who are currently studying at the Faculty of Mechanical Engineering and Faculty of Electrical Engineering.

Since the online questionnaire is a conventional tool for acquiring data related to attitudes of participants and their beliefs with respect to the topic investigated, we considered it as an essential apparatus for gathering information on perception of a cloud-based student response system (Laktišová & Sršníková, 2017).
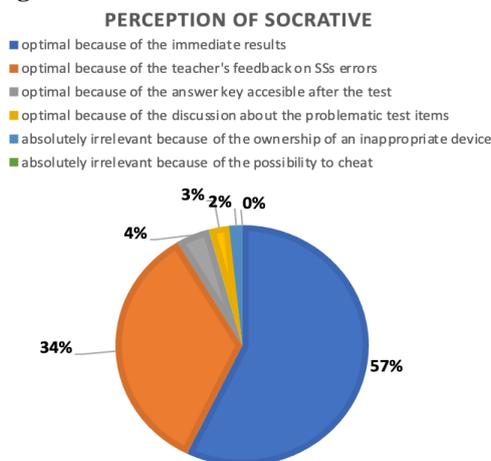
In total, the responses of the sample of 187 undergraduate participants ranged of age from 20 to 24 were collected and examined and as it is shown in Figure 1., 149 male and 38 female representatives drew an attendance in the study.

Figure 1. Participants of the study according to their gender

GENDER

■ Male ■ Female

20%

80%
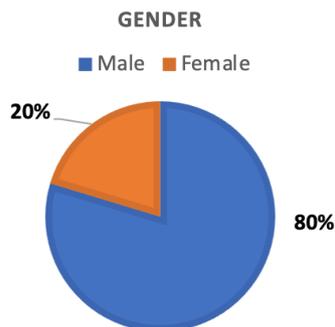
In case of respondents' gender, it is necessary to point out that the phenomenon of the predominancy of the male representatives is presumably caused by the selection of the faculties with a highly technical focus.

Figure 2. Students attitudes towards Socrative

PERCEPTION OF SOCRATIVE

■ optimal because of the immediate results
■ optimal because of the teacher's feedback on SSs errors
■ optimal because of the answer key accesible after the test
■ optimal because of the discussion about the problematic test items
■ absolutely irrelevant because of the ownership of an inappropriate device
■ absolutely irrelevant because of the possibility to cheat

3% 2% 0%

4%

34%

57%

The graphical representation of students' attitudes towards Socrative clearly points to the fact that students are satisfied with the assessments that are delivered online, considering them to be optimal for many reasons. The most critical interpretation, that is considered to be beneficial, is the immediate result. Students do not have to wait several days for the teachers to correct the test manually and publish the results in LMS MOODLE or send them via email. The individual student gets an immediate feedback not only about the final score but also about the errors committed in the test, which subsequently promotes discussion and further cooperation between the teacher and the student. We also took into consideration a number of negative factors that could influence the pilot version of online testing. The first aspect we perceived to be the most striking is the WIFI connection and its stability in the classrooms in which the seminars and also tests took place. The students were thoroughly briefed on which of the university WIFI pathways offered should be used in order to avoid failure of the connection while undertaking the test. Many of the students, instead of the university WIFI connection pathway, used their own unlimited mobile operator data program. Although Socrative as the multi-platform app is accessible across a spectrum of apparatus, some students do not possess the necessary type of the handheld device needed. For such students, the school ICT equipment was available. In order to ensure a level playing field for all students, the university authorized the ILL to use the computer laboratories. For abovementioned findings, the implementation of the testing platform may be regarded as successful.

Conclusions

There should be no question that the university teachers feel the responsibility for the students' outcomes. Yet, a committed teacher should also be concerned about the perception of the innovations that are implemented in order to support the learning results. If instructors want their students-digital natives to be positive toward the course itself, then they need to consider carefully the implementation of technology that could advocate the positive approach to studying. Socrative is viewed as the tool that has been described as effective in online testing, positively impacting not only the teachers of ESL course but also the students attending it.

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