

## FORMATIVE ASSESSMENT TOOLS FOR HIGHER EDUCATION LEARNING ENVIRONMENT

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**Abstract.** Though many scholars and teachers point out the significance and benefits of formative assessment it is not a widely adopted practice in the higher education learning environment. Higher education institutions need to support enhancing of teaching and learning process by implementing formative assessment tools in the academic courses. The paper emphasizes the importance of formative assessment and introduces innovative tools: *Open Digital Badges, Group Reflective Diary and Critical Friend Approach*. Sokhumi State University, Georgia started piloting of these tools in the academic year of 2019-2020. Piloting has been carried out in the Bachelor programs of the faculty of Education Sciences, one of the 5 faculties of the university. It is planned to implement the tools in the educational programs of all the five faculties of the University, at Bachelor, Master and PhD levels. The lecturers show great interest in the innovation and agree on the fact that application of these tools can improve teaching and learning process, increase student motivation and enhance their achievement.

**Keywords:** formative assessment, tool, teaching and learning process

## ИНСТРУМЕНТЫ ФОРМАТИВНОЙ ОЦЕНКИ ДЛЯ СРЕДЫ ОБУЧЕНИЯ В ВЫСШЕМ ОБРАЗОВАНИИ

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**Аннотация.** Несмотря на то, что многие ученые и преподаватели отмечают важность и пользу формативной оценки, она не является широко распространенной практикой в сфере высшего образования. Высшим учебным заведениям необходимо содействовать совершенствованию учебно-педагогического процесса путем внедрения инструментов формативной оценки в учебные курсы. В документе подчеркивается важность формативной оценки и вводятся инновационные инструменты: *Открытые цифровые значки (Open Digital Badges)*, *групповой рефлексивный дневник (Group Reflective Diary)* и *подход "критического друга" (Critical Friend Approach)*. Сухумский государственный университет, Джорджия начал апробацию этих инструментов в 2019-2020 учебном году. Пилотирование было осуществлено в бакалаврских программах факультета педагогических наук, одного из 5-ти факультетов университета. Планируется внедрить эти инструменты в образовательные программы всех пяти факультетов университета, на уровне бакалавра, магистра и доктора наук. Преподаватели проявляют большой интерес к нововведениям и согласны с тем, что применение этих инструментов может улучшить процесс преподавания и обучения, повысить мотивацию студентов и улучшить их успеваемость.

**Ключевые слова:** формативная оценка, инструмент, процесс преподавания и обучения

## INTRODUCTION

Implementing formative assessment in higher education system is critically important. Higher education students need be more independent and self-directed learners: students need to set learning goals, get engaged in the learning process and evaluate their own learning. Formative assessment helps to shape learning, achieve learning objectives and finally positively affects the summative assessment results.

Sometimes teaching process requires to be modified based on students' needs or students need to adjust their own learning based on the evidence of their progress and formative assessment is a good opportunity for both the teachers and the students to make changes in their teaching and learning process. Formative assessment allows teachers to monitor the progress of students, helps them identify learning needs and problems and they plan the next steps and adjust their teaching strategies according to the needs of students. Formative assessment is essential for students as well, it promotes student learning in three ways: motivation to study, awareness of their own learning and the effects on learning. Formative assessments require students to continually reflect on their learning and when they know what they are doing well and what they need to work harder on, it helps them manage their own learning and move forward to the desired goal. Wiliam and Thompson (2007) discuss three processes of formative assessment: establishing where the learners

are in their learning, establishing where they are going and establishing what needs to be done to get them there (Wiliam & Thompson 2007, 63).

Formative assessment refers to a broad variety of methods used by teachers to perform in-process assessments of student comprehension, learning needs and academic achievements. It can also be used by students to become aware of their progress. According to Black and Wiliam (1998) formative assessment consists of “all those activities undertaken by teachers and/or by their students, that provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (Black & Wiliam 1998, 7). This detailed information helps teachers to improve their instruction as well as student learning. Teachers identify learning needs and problems and students develop an understanding of their strengths and weaknesses. According to Popham (2008) “Formative assessment represents evidence-based instructional decision making. If you want to become more instructionally effective, and if you want your students to achieve more, then formative assessment should be for you” (Popham 2008, 15).

As Brown (2004) stated there are different reasons that will impact on teachers’ choice of assessment instruments: to motivate students, to encourage activity, to provide guidance and feedback for remediation, grading and selection and these instruments may include the wide diversity of under-used methods that are suitable in different contexts (Brown 2004, 82). Sokhumi State University of Tbilisi, Georgia started piloting some tools of formative assessment - Open Digital Badges, Group Reflective Diary and Critical Friend Approach in the framework of EU *Erasmus+* project ASSET (Assessment Tools for Higher Education Learning Environment) in the academic year of 2019-2020. Piloting has been carried out in the Bachelor programs of faculty of Education Sciences, one of the 5 faculties of Sokhumi State University. We consider that implementation of the tools should involve all the five faculties and at all - Bachelor, Master and PhD levels.

## **OPEN DIGITAL BADGES**

Open Digital Badges is emerging trend in educational technology and present a new means of assessment. They are extensively used in Tallinn University. Open badges, digital badges and educational badges are used as synonyms. They are open and visible to everybody and they are shared in the digital environments. Open Digital Badges “acknowledge and make visible skills and competencies needed for the workplace but which are neither “taught” nor assessed in formal environments” (ASSET 2018a, 4). Open Badges can be used in distance learning as well as in face-to-face learning formats. The Open Badges system helps to get individual profile of each student at the end of the course by collecting digital badges reflecting all specific skills and knowledge based on instructional content. Students are rewarded with specific badges upon completion of particular learning topic or task. At the end of the course digital badges can be shared on a special online platform, e.g. social media or electronic portfolio. The accumulation of the badges has an impact on the student’s final grade. As indicated in Open Digital Badges there are different types of badges: outcome-based badges, multiple level of badges (regular, golden, silver or bronze badges), multiple learning pathways (researcher, practitioner, wikipedist), broken badges (to point out unwanted behavior, for example, being late with assignments), etc. (ASSET 2018a, 9).

## **GROUP REFLECTIVE DIARY**

Reflective diaries are also referred to as learning diaries/journals, or learning/response logs. As stated in Group Reflective Diary “applying reflective diary in pedagogical practice in Higher Education Institutions helps students to analyze their own learning process, identify gaps, and plan for improvement” (ASSET, 2018b, p. 3). The goal is to encourage students to explore their thoughts. Minot (2008) expresses that Reflective Diaries allow students to reflect on their beliefs, values, experiences, and assumptions that influence their learning, as well as their development and progress over time (Minot 2008, 56).

In Reflective diary prompting question taxonomy is shown that reflective journal writing covers different dimensions: cognitive, behavior and emotions. Some questions of the diaries are: what have I learned? Why should I learn this? What else do I need to learn? What can I do in order to gain a better understanding? What experiences can I gain from this activity to improve my learning skills? What strategy have I used in learning this topic? How have we worked as a group? How can I make this strategy more effective? How did I feel during the activity? What did I like or dislike? How can I improve my feelings towards the activities? The questions are also organized in a) academic development, b) professional development and c) personal/group development categories (ASSET 2018b, 9-11). Students are learning how to reflect upon their learning. These reflections allow teachers to get to know their students better, understand their strengths and weaknesses and improve the teaching/learning process.

## **CRITICAL FRIEND APPROACH**

As cited in Critical Friend Approach “the idea of a ‘critical friend’ or ‘critical colleague’ was first recommended by Stenhouse (1975) as a ‘partner’ who can give advice and is working with the teacher–researcher in the action research on face-to-face basis” (Stenhouse, 1975 cited in ASSET 2018c, 4). Critical friends act as professional friends. It is indicated that the “critical” aspect relates to the task and the “friend” aspects relates to you as a person (ASSET 2018c, 6). A critical friendship requires trust and building a safe environment for its participants. Types of Critical Friend Approach are: individual (between 2 students) and group (4-6 students). Critical Friend approach gives students an opportunity to develop reflective, analytical, critical, metacognitive and collaborative skills. Critical Friend approach ensures delegating responsibility for students, respect for different opinions and build trust-based relationships. Students learn how to provide effective feedback. They give both warm (positive) and cool (critical) feedback. It is given in a supportive tone and practical suggestions are provided. Students understand positive effects of formative feedback and collaboration, it increases their readiness to study novelty, increases readiness to criticism and the atmosphere of mutual trust and mutual assistance occur in the group.

## **CONDUCTED SURVEY**

Sokhumi State University has conducted trainings for its academic staff to increase awareness of formative assessment and the above-mentioned tools. 40 lecturers participated in the training sessions in total. Before the trainings we carried out a survey to get information how aware the lecturers were of formative assessment and if they used any tools of formative assessment in their practice. There were 3 questions in the questionnaire. A little survey was also carried out after the trainings. It informed us how the lecturers perceived the assessment tools of formative assessment delivered at the training sessions. The questionnaire included 3 questions in the questionnaire.

**RESEARCH FINDINGS**

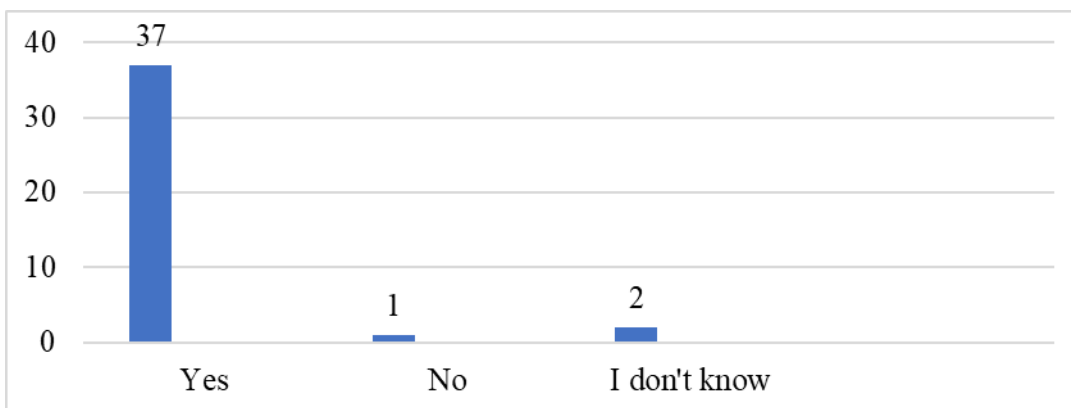
In the survey conducted before the trainings, to the question “Do you use formative assessment in your teaching in higher education environment? If yes, what tools do you use?” majority of the lecturers answered that they don’t use formative assessment tools in their teaching.

To the second question “Have you heard about Open Digital Badges, Group Reflective Diary or Critical Friend Approach? If yes, which one are you aware of?” only 15% of the lecturers (6 lectures) answered that they have heard about any of the above-mentioned tools.

To the third question “Tick the formative assessment tools you use in your teaching in higher education environment? Open Digital Badges, Group Reflective Diary, Critical Friend Approach or none of them” all the participants of the trainings ticked the answer “None of them”.

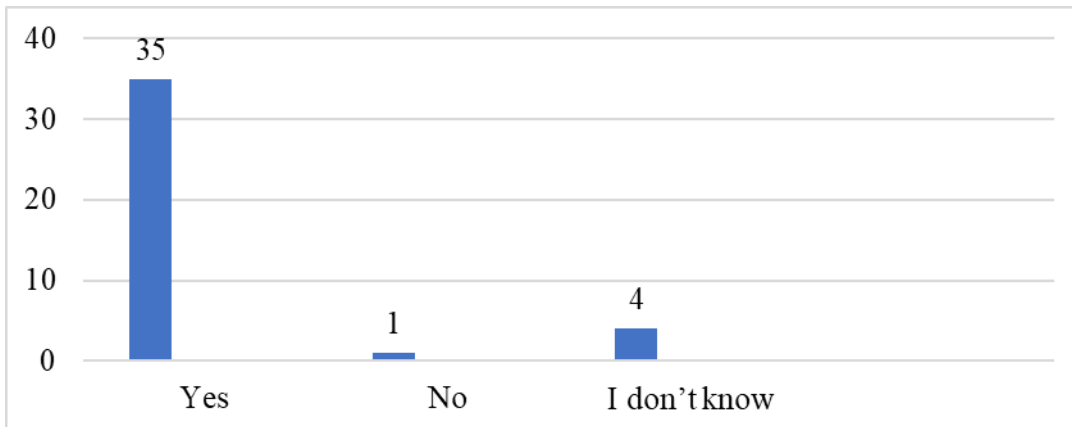
In the survey conducted after the trainings, to the question “Do you think formative assessment tools - Open Digital Badges, Group Reflective Diary or Critical Friend Approach - can improve teaching and learning process?” the answers were distributed this way: 37 lecturers -Yes, 1 lecturer - No, 2 lecturers - I don’t know

**Figure 01**



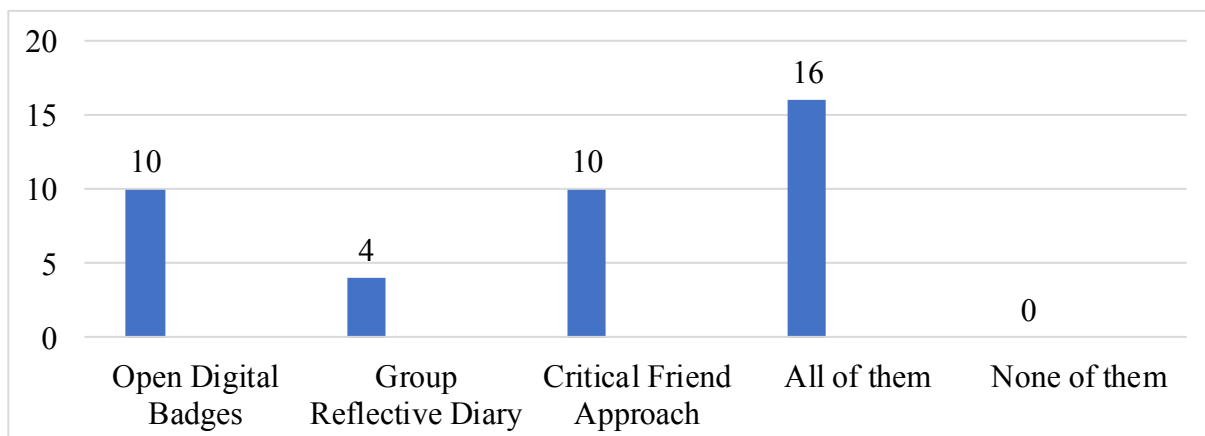
To the second question “Are you willing to use formative assessment tool - Open Digital Badges, Group Reflective Diary or Critical Friend Approach - in your teaching?” 36 lecturers answered – Yes, 4 of the lecturers – I don’t know, None of the lecturers - No.

Figure 02



To the third question “Which of the formative assessment tools attracted your attention most of all?” the percentage of the answers looks like this: Open Digital Badges – 10 lecturers, Group Reflective Diary - 4, Critical Friend Approach – 10 lecturers, All of them – 16 lecturers, None of them – 0.

Figure 03



**CONCLUSION**

In conclusion, the survey conducted by Sokhumi State University showed that the academic staff of the university has little knowledge about formative assessment and for big majority of them tools such as Open Digital Badges, Group Reflective Diary and Critical Friend Approach is a novelty in the education sphere. The tools have arose a big interest in the participants of the trainings, they all agreed on the fact that the discussed tools in the trainings can contribute to the teaching and learning process, make it more effective and the majority of the lecturers expressed their desire to get more information about the application of the tools and implement them in their teaching courses.

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### For citation:

**Tsulaia, N. & Adamia, Z.** (2020) Formative assessment tools for higher education learning environment. International Scientific-Pedagogical Organization of Philologists “ WEST-EAST ” (ISPOP). Scientific Journal “WEST-EAST”. Vol. 3, N1 (March, 2020). pp. 86-93. doi: <https://doi.org/10.33739/2587-5434-2020-3-1-86-93>

### Для цитирования:

**Цулаиа, Н., Адамия, З. К.** (2020) Инструменты формативной оценки для среды обучения в высшем образовании // International Scientific-Pedagogical Organization of Philologists “ WEST-EAST ” (ISPOP). Scientific Journal “WEST-EAST”. Vol. 3, N1 (March, 2020). С. 86-93. doi: <https://doi.org/10.33739/2587-5434-2020-3-1-86-93>

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Manuscript received: 12/12/2019

Accepted for publication: 01 /17/2020

Рукопись получена: 12/12/2019

Принята к печати: 01/17/2020