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MANAGEMENT**

Exploring Formative Assessment in Public Primary School Classrooms in Baku

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STATEMENT OF AUTHENTICITY

We have read ADA's policy on plagiarism and certify that, to the best of my knowledge, the content of this paper, entitled (Exploring Formative Assessment in Public Primary School Classrooms in Baku), is all our own work and does not contain any unacknowledged work.

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Abstract

Assessment is a key to the learning process since it assists to reach the desired outcomes. Formative assessment is a type of assessment that allows teachers to monitor student learning and it is implemented in Azerbaijani schools. The aim of this project was to determine how primary school teachers employ formative assessment and the challenges that come with formative assessment in three public primary schools in Baku.

The methodology used in this study was qualitative in nature. The study included interviews, document analysis, observation models, and all were qualitative research methods. We have analyzed public documents such as FA journals and teachers' private documents like teachers' personal notes and notebooks which present formative assessment data of the students, and written feedback from teachers to students. In addition, one-on-one semi-structured interviews with teachers were conducted to learn about the formative assessment methods they use and the challenges they face in the classroom. The non-participant observation technique was also used to inspect every component of the instruction session.

The findings of the study highlight that primary school teachers use formative assessment techniques in their classes. However, they undergo some challenges while implementing formative assessment and its different techniques. Teachers do not understand the essence of formative assessment, although they use it in their classrooms. They also mix formative assessment with frequent assessment; they cannot manage time.

According to the findings of the study, participant teachers will be invited to the seminar in which they will get information about FA, and effective ways to implement its techniques and overcome the challenges. The teachers will also get a chance to share their ideas with their peers and brainstorm on the topic.

Keywords: feedback, formative assessment, learning progression, primary school, teacher's challenges, formative assessment techniques.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION.....	6
Statement of the Problem.....	6
The purpose of the Study.....	7
Research Questions.....	7
Significance of the Study.....	8
CHAPTER 2: LITERATURE REVIEW.....	10
Defining Formative Assessment.....	10
The Purpose of Formative Assessment.....	11
Key Elements of Formative Assessment.....	12
The Role of Formative Assessment.....	13
Formative Assessment Techniques.....	13
Teachers' Challenges.....	15
CHAPTER 3: RESEARCH METHODOLOGY.....	17
Methodology.....	17
Research Design.....	17
Data Collection.....	18
Data Collection Process.....	21
Study Limitations.....	23
CHAPTER 4: FINDINGS.....	24
Formative assessment techniques.....	26
Challenges faced by primary school teachers while using formative assessment.....	33
CHAPTER 5: FINAL PRODUCT.....	42
CHAPTER 6: CONCLUSION.....	44
APPENDICES	46
REFERENCES.....	49

CHAPTER 1: INTRODUCTION

Statement of the Problem

Formative assessment is one of the assessment types that is used to assess students at schools in the Republic of Azerbaijan. One of the primary benefits of formative assessment is that it enables teachers to monitor students' progress daily or weekly in class (Gratela & Ferolino, 2018). According to Frey and Fisher (2011), if a formative assessment is missing in the learning process, innovation, motivation, high-quality instruction, passion, and high expectations are not enough to ensure that students reach a high level of learning. Therefore, formative assessment techniques should be chosen correctly, and they should be aligned with standards, course and lesson objectives (Shermis & Vesta, 2011).

In Azerbaijan, there are some existing problems in the field of students' performance assessment. According to the Assessment Concept in the General Education System of the Republic of Azerbaijan approved by Decree no. 9 as of 13 January 2009 by the Ministers Cabinet, limited experience in using assessment methods and lack of training of specialists in implementing these assessment methods, and lack of experience of teachers to communicate effectively with students through assessment during teaching are the main existing problems. In addition, according to the final report of the active learning evaluation of UNICEF Azerbaijan (2013), teachers used formative assessment techniques to engage students actively in their lessons on multiple occasions. However, the evaluation found little evidence of critical thinking and problem-solving in the students. Lessons, on the other hand, tended to include a large number of techniques with few connections to the overall objectives of the lessons. Moreover, as stated in the final report of the active learning evaluation of UNICEF Azerbaijan

(2013), teachers' capacity to perform formative assessments remains in the early stages of development in Azerbaijani public schools. Although the research was conducted nine years ago, we were unable to locate more research to determine whether the situation has altered over time.

The Purpose of the Project

The purpose of this capstone project was to determine formative assessment techniques used by public primary school teachers in Baku. While UNICEF reports (2013) stated that primary school teachers use a variety of formative assessment strategies. However, they also noted that their ability to implement these strategies is in the early stages of development. Additionally, the study identified the challenges they have when implementing formative assessment since UNICEF research did not explore teacher challenges with the use of formative assessment.

According to the findings, we planned the workshop which is aimed to assist teachers to understand the real meaning of formative assessment and overcome their challenges while applying FA techniques.

Research Questions

The study is structured around the following research questions:

1. What formative assessment techniques do primary school teachers use?
2. What challenges do the teachers face while applying formative assessment?

The Significance of the Study

Teachers face difficulties implementing formative assessment and utilizing a variety of formative assessment techniques (Shermis & Vesta, 2011). Based on the recent decisions of the Ministry of Education (Assessment Concept in the General Education System, 2009), there is no numerical grading system in primary schools and teachers constantly monitor students throughout the learning process to ensure that they achieve learning outcomes and are prepared for summative assessment (Hasanov et al., 2004). Therefore, we thought that doing research and planning workshops on implementing formative assessment effectively for primary school teachers would be beneficial for our education. This research study enabled us to learn about the challenges faced by primary school teachers and the various formative assessment techniques they employ in their classrooms. We will share our study findings with administrators and teachers in general. In addition, we will develop a manual revealed by our study in which teacher challenges on formative assessment will be addressed. After all, we will conduct the workshop as the final product. The steps we consider taking could assist administrators and teachers in using and implementing formative assessment and overcoming challenges while implementing formative assessment in order to improve students' performance in primary schools. At the same time, the study findings and our workshop may encourage the teachers to work on new formative assessment techniques to make the learning process more effective.

Definition of Terms

There are some terms that are essential to this study. Thus, the terms listed below are operationally defined:

Feedback: Feedback is the information that teachers provide to students in order to make them take active steps to improve their learning (Heritage, 2007). *Constructive feedback:* Constructive feedback defines as highly effective feedback for increasing students' self-efficacy, motivation for the task, and self-regulation, all of which contribute to students achieving their learning outcomes. *Effective feedback:* Effective feedback is to “empower active learners with strategically useful information, thus supporting self-regulation” (Bangert-Drowns, Kulik, Kulik, & Morgan, 1991, p. 263).

Formative assessment. Formative assessment is the process of gathering and analyzing information about student learning in order to make decisions about how to advance learning (Black et al., 2003).

Primary school. Primary school is a school for children aged 6 to 10 years old in the Azerbaijan Republic (Education Law of the Republic of Azerbaijan, 2009).

Teacher's challenges on formative assessment. Challenges are the impediments and difficulties that teachers experience (Khazanchi and Khazanchi, 2021) when it comes to successfully implementing formative assessment in the classroom.

Learning progressions: Learning progressions presuppose a progression of cognitive states from simple to complex; while not linear, the succession is not random and may be sequenced and ordered as 'anticipated trends' or 'probable probabilities' (Gallacher & Johnson, 2019).

CHAPTER 2. LITERATURE REVIEW

Assessment has always been a component of educational practice. Assessment is used for different reasons, and it has different types (Black & William, 1998). Formative assessment is one of the key types of assessment (Bartlett, 2015). This research study focused on formative assessment in public primary schools.

In this section, we reviewed the work of scholars which fall under the following categories: (1) formative assessment; (2) its purpose; (3) core components and elements of formative assessment; (5) formative assessment techniques; (6) teachers' challenges on formative assessment.

Defining Formative Assessment

This section presents a review of twenty-first-century literature on defining formative assessment. Many scholars agree with the definition of formative assessment that it is the process of making decisions to improve learning based on information about students' learning during the course of instruction (Barlett, 2015; Bell & Cowie, 2001; Shepard, 2000). Black et al. (2003) define formative assessment as a process of getting and then using information about student learning in order to decide on how to make progress in learning. Formative assessment can be defined as communication between the student and the teacher that stimulates the teacher's practices to be modified to meet the student's needs. As a result, the student is able to use the information to do self-assessment and define the possible tools to improve learning (Andrade & Cizek, 2010; McMillan, 2014; Popham, 2014). Heritage (2007) states that formative assessment could give information to the teachers and students in order to make the learning process effective. Heritage (2007) also states the importance of using formative assessment in the class

and adds that during the formative assessment students participate in the lesson actively and share the learning goals and they understand the steps they need to take in the learning process.

The Purpose of Formative Assessment

When it comes to the purpose of formative assessment, how to apply it successfully and its role in academic achievement, there have been numerous studies to investigate these topics. According to Heritage (2007), formative assessment has four main components: determining the “gap”, student involvement, feedback, and progression of learning. Roskos and Neuman (2012) support Heritage (2007) and state that the purpose of formative assessment is to define the gap between where the students are and where they need to reach. The gap differs for each student, who exhibits various characteristics in his or her studies (Roskos & Neuman, 2012).

When it comes to student involvement, Heritage (2007) points out that enhancing learning by formative assessment requires students to actively participate in their assessment. Heritage (2007) proposes that students work with their teachers to create a common understanding of the existing level of learning and what they have to do to progress in their learning. They keep track of what they actually know and determine when additional instruction is required.

The next core component of formative assessment by Heritage (2007) is feedback. Hendrickson (2021) emphasizes the importance of feedback in the classroom and defines ‘feedback as teachers comment on both students’ progress throughout the course’ (2021, p. 488). Effective feedback plays a crucial role in student learning (Hattie & Timperley, 2007).

Lastly, Heritage (2007) mentions learning progression as one of the main formative assessment components. Formative assessment relies heavily on developing learning progressions toward standards. Learning progressions assist teachers in locating students' current educational level on the continuum along which students are expected to progress, as well as providing a big picture of what is to be learned. Students must also set short-term goals that are derived from the education process and defined in terms of criteria for success. The criteria for success act as a guide to learning while the student is involved in the learning tasks. The criteria for success serve as a framework for formative assessment and allow for evidence interpretation.

Key Elements of Formative Assessment

Andrade and Cizek (2010) included a list of key elements in the first edition of the Handbook of Formative Assessment (p. 8).

- Clearly communicates a specific learning goal
- Provides examples of learning objectives, as well as the unique grading standards or grading rubric that is used to assess the student's work.
- Determines students' skills and knowledge as well as the prerequisites in order to achieve the desired outcomes.
- Requires creating plans in order to achieve the desired results.
- Incorporates frequent assessments, including student self-assessment, and peer assessment.

- Includes feedback that is specific and given in time and is related to the learning objectives and provides students with recommendations on how to progress in learning.
- Makes students take responsibility for their own learning.

The Role of Formative Assessment

Regarding the role of formative assessment in students' academic performance, Hattie (2009) assessed over 800 meta-analyses on educational factors. This research included more than 50.000 studies and 146.142 effect sizes in order to investigate the impacts of educational factors on academic achievement. According to the study's findings, formative assessment was the third most important factor for students' achievement out of 138 factors. Feedback, which is one of the most important aspects of formative assessment, was eighth in the same order.

Formative Assessment Techniques

Formative assessment techniques are used to assess student understanding to make choices about ongoing and prospective instruction. The techniques should be in line with the learning goal and success factors. Formative assessment strategies document the students' various levels of knowledge and provide the teacher with data that could be used to develop the students' work (Heritage, 2010). There are several repertoires of formative assessment techniques that can be used in class, we will list some of them:

Questioning. Black et al. (2003) suggest using questioning in order to improve students' understanding and knowledge. They also mention that teachers need to be sure whether the questions are thoughtful and reflective. Simple and factual questions can be asked, although if

teachers want to design more effective question-and-answer sessions, they should require students to brainstorm their ideas (Black et al., 2003). Sometimes during the questioning, certain students may remain silent and refrain from participating (Leahy et al., 2005). Leahy et al., 2005 propose calling students' names to respond to the question rather than choosing one student among the students who raise their hands. When we discuss the "questioning" technique, we need to consider "wait time". It is critical to allow sufficient time for students to synthesize their responses (Jayne, 2015). When we say wait time, we consider both thinking and response time. If teachers do not give time to students in order to think about their responses, students get confused and rush their answers (Jayne, 2015). Students feel under duress and as a result, poor quality answers are responded to.

Group/ Pair works. Black et al. (2003) mention the importance of making students work in groups or pairs since it assists all the students to share their ideas, hear other thoughts and think deeply about the given topic, or task. However, the teacher needs to consider some factors while grouping students. Bartlett (2015) suggests different types of group/ pair activities such as jigsaw, 'think, pair, share', snowballing, and carousel. The author believes that these activities assist students to refine understanding through discussion and improve communication and collaboration skills.

Exit cards. The teacher asks students a question or poses a problem for them to solve before they leave class. This strategy is called exit cards. According to Collier (2013), exit cards are one of the greatest tools to know what each student grasped or misunderstood from the class, and it assists to get information about student progression.

Discussions. A class discussion through a course of study may provide the teacher with useful data about what students know about the course, topics and what they understand. Discussions improve students' thinking and problem-solving skills and allow students to reflect on their own learning (Regier, 2012).

Oral Feedback. According to Heritage (2010), teachers should provide oral feedback when students are ready to hear what they have to say. Oral feedback should be directly related to learning objectives and should help students self-regulate (Heritage, 2010).

Peer-Assessments. Students look at their classmates' work and provide constructive feedback to the work by assessing good and less good parts and implying how the work could be improved (McMillan, 2013).

Teachers' Challenges

As we reviewed many scholars and their ideas on formative assessment, we could sum up that formative assessment must be a part of each class in order to support student learning. However, research shows that not all teachers could use formative assessment effectively (Duy et al., 2021). They have difficulties with some aspects of formative assessment:

- Establishing high-quality learning objectives (Roth & Garnier, 2007)
- Analyzing student responses (Schueler, Stahnke & Roesken-Winter, 2016)
- Providing constructive feedback (Hattie & Timperley, 2007)
- Making instructional decisions based on the ideas of students (Heritage, Herman Kim & Vendlinski, 2009)

We, as educators, should assist to improve common understanding and practices regarding formative assessment (Sebba, 2006), we need to identify and address barriers to effective implementation of formative assessment (Baird, 2010). Without a comprehensive analysis of formative assessment, research data may only provide a limited grasp of the nature and procedure of formative assessment. From that point of view, the purpose of this study is to examine the specific ways in which primary school teachers use formative assessment and the challenges they undergo while implementing it.

CHAPTER 3. METHODOLOGY

The purpose of the project was to determine the formative assessment techniques used by primary school teachers and the challenges of implementing formative assessment in the public primary schools in Baku. This section will represent the research methodology employed in this study. Furthermore, this section consists of research design, data analysis and collection procedures, sampling strategies, ethical issues, and study limitations.

Qualitative Research

According to Merriam and Tisdell (2016), qualitative research considers closely how individuals interpret their experiences, design their worlds, and assign meaning to their experiences. In this study, we employed a qualitative method of research. Our focus is on individual (primary school teachers') decisions on applying formative assessment in lessons and the challenges they are encountering while applying formative assessment. We assumed that qualitative research would enable us to explore information about teachers' experiences and challenges in formative assessment.

Research Design

"Research design" is defined by (Creswell, 2014) as "the specific procedures involved in the research process: data collecting, data analysis, and report writing (p.375)". Descriptive research is a type of research in which researchers attempt to describe and interpret things, such as the condition of a thing or relationship, the development of opinions, the occurrence of an effect, and trends that are ongoing in the community (Creswell, 2014). We used the design to identify the challenges associated with implementing formative assessment in public primary

schools and propose solutions to those challenges by using collected data. The written documents (teachers' formative assessment journals and their notes about students' learning) and collected data through interviews with teachers and observations of those teachers' classes were investigated.

Data Collection

Qualitative data collection contains data with emergent and broad questions which allow the participants to produce answers and collect data from a few individuals or sites (Creswell, 2003). In this study, we used methods such as document analysis, interviews, and observations to collect data. Each method will be discussed in detail below, along with the rationale for selecting them for this study.

Document Analysis

According to Creswell (2003), documents have the benefit of being in the words and language of the people involved, who have typically given them careful consideration. We analyzed public and private documents. We used documents such as teachers' guidebooks, and curriculum guides connected to our study. Among the private documents were formative assessment records of the chosen teachers, and written feedback the students received from their teachers. We became acquainted with documents during our visits to the classrooms, including formative assessment journals and teachers' personal notebooks which describe the information collected during formative assessment. As formative assessment journals are not mandatory in two of the schools we visited (coded as School 2 and 3), we noticed that some teachers also use personal notebooks to keep a record of students' oral and written assessment results, their weaknesses and strengths.

Interviews

Merriam and Tisdell (2016) mention that interviews are used most for collecting data in education. Interviews are qualitative data collection methods in which researchers ask participants broad and open-ended questions and record their responses (Brinkmann, 2018).

We conducted one-on-one interviews since it was relevant to ask questions individually to the teachers about the formative assessment techniques they use and the challenges they face in the class. We conducted semi-structured interviews. These interviews will be the main source to investigate teachers' perspectives on formative assessment. In addition, regarding teachers' answers, some follow-up questions were also asked. The respondents were interviewed in Azerbaijani as the research site was recruited from Azerbaijani stream. The interviews lasted between 30 and 60 minutes. Two interviews were held in the interviewees' workplaces, while 4 interviews were conducted online due to participants' preferences.

Observations

Observation is a qualitative data collection method that aims to gather open-ended and direct information by observing places and people (Creswell, 2003). We observed the classes see how formative assessment is implemented and what factors prevent it from being implemented successfully. We were able to reach firsthand data by observing classrooms. In this case, we applied a non-participant observation type which helps the observer examine each detail. Engaging in fieldwork such as observing participants enables the researcher to explore shared beliefs, behaviors, and language that have shaped over time (Creswell, 2014). We recorded both descriptive and reflective field notes. We have piloted an observation instrument developed by

Oswalt (2013) in order to observe formative assessment in practice. The instruments aided us to make field notes structured and more comfortable to code for the next step.

Setting

The study was conducted in three public primary schools located in Baku. The schools were selected according to their performance indicators. We looked at the ranking of Baku schools for the academic year 2020-2021 provided by the State Exam Center in order to determine the schools. The ranking is based on final exam results of completing general secondary level, and student admission to universities and secondary-specialized education institutions. As a consequence of our request, The Baku City Education Department provided us with a ranking table. After choosing the schools, we contacted the Baku City Education Department to receive formal permission to conduct the study.

Target Population

The target population of the study was two primary school teachers from each school. Besides, we observed two classes from each school. While observing classes we used observation tools and took notes. Due to time limitations, we visited each class only once and attended six lessons, including different subjects such as the Azerbaijani language (two times), Maths, Technology, Science, and English. The total number of teachers we interviewed and observed in their classes was six.

Sampling

Using purposeful sampling, researchers aim to identify and select individuals or groups of individuals who have deep knowledge about or experience with a phenomenon (Creswell &

Plano, 2011). The purposeful sampling method was an appropriate sampling method for choosing schools since we plan to explore formative assessment in high-performing, medium and low-performing schools.

We employed a voluntary sampling method to choose the teachers for our study. Voluntary sampling is a method to select the study participants from among the potential participants who are willing to be involved in the study.

Data Collection Process

The data collection process lasted throughout March, 2022. Initially, according to the school ranking table, researchers contacted shortlisted schools and informed them about the purpose of the study. The schools that agreed to take part in the study were identified. Then a request for permission was sent to the Baku City Education Department by ADA University. The consent form was created and distributed to the participants in order to notify them of their rights and ensure that the confidentiality of the information gathered would be maintained (i.e., the confidentiality refers to the personal information received from participants and the identity of the schools). The consent form was written in Azerbaijani because it is the official language of the country and the language of instruction in the classes.

Recruitment

The recruitment process implies identifying and targeting potential populations and informing the study participants about the study (Creswell, 2003). According to the Baku City Education Department's ranking list, we began the recruitment process. We asked principals and vice-principals to set up talks with primary school teachers when we visited schools. The

teachers were told about our capstone project and the data collection method. Teachers who agreed to participate in the study were presented with a consent letter.

Trustworthiness

In qualitative studies, researchers apply some techniques to enhance the reliability of collected data. Those strategies can be defined as the trustworthiness or rigor of a study (Pilot & Beck, 2014). To evaluate trustworthiness Lincoln and Guba (1985) include the following strategies: credibility, consistency/dependability, confirmability and transferability.

Credibility. Internal validity or credibility in qualitative research explores the question of whether the research findings match the real context or not. Merriam and Tisdell (2016) define internal validity as “a definite strength of qualitative research” (p. 244). In our research, we will use triangulation and peer review to ensure credibility.

Triangulation. According to Patton (2015), triangulation “increases credibility and quality by countering the concern (or accusation) that a study’s findings are simply an artifact of a single method, a single source, or a single investigator’s blinders” (p. 674). In the study, the data collected through interviews, document analysis, and observations will be analyzed in order to triangulate findings.

Peer Review. Peer review is another method of ensuring the credibility of research findings. Each of us will analyze the research findings and provide feedback.

Study Limitations

Knowing in advance what restrictions may be placed on a study will increase its legitimacy and tell researchers that your research is reliable (Creswell, 2003). Our study also has limitations in itself.

Although we applied voluntary sampling for choosing, teachers some teachers rejected to participate in the study. As a result, we involved two teachers according to the schools' principals' recommendations.

Ethical Issues

Ethical considerations for research are a set of guidelines that guide research design and practice. According to Baez (2002), "successful research" must be properly regulated, well-planned and formulated, and organized within an ethical framework.

Before embarking on any data collection activities within a particular school, we submitted our research proposal to the school administration. Research participants and the organization had the right to confidentiality, so we protected their personal information while we stored or used it and replaced their information with conditional information.

CHAPTER 4: FINDINGS

The purpose of this capstone project was to explore formative assessment in public primary schools in Baku. We also aimed to determine the formative assessment techniques primary school teachers use and the challenges while using formative assessment.

In this chapter, we first provide an overview of the findings. Then we summarize our findings into two sections in relation to the research questions: (1) the formative assessment techniques that primary school teachers use, and (2) the challenges primary school teachers face while applying formative assessment.

Research context – Schools

Three public schools in Baku were chosen to participate in the study. Their residences are spread over three distinct areas of the city: Nasimi, Yasamal, and Khatai. To present the findings in a more logical and understandable manner, we called schools; School 1, School 2, and School 3 (order is defined according to schools' ranking- School 1 with the high ranking from the list, School 2- medium ranking and School 3- low ranking) and the participated teachers are numbered, such as Teacher S1T1 ('S1' stands for School First, T1 stands for Teacher 1 from School 1 (see Table 1). These schools are public schools with two shifts of instruction and schools with both Azerbaijani and Russian streams (except School 2). We conducted the research only among Azerbaijani stream teachers and students. According to the national curriculum (2010), primary class teachers can teach all topics other than computer science and English. However, in School 1, primary school teachers are engaged in teaching computer science themselves. Teachers who complete an ICT course and obtain the necessary knowledge and skills can teach computer science at the elementary level (MoE, 2020).

Schools/ranking	Teachers at the primary level	Students at the primary level	Coding of participant teachers
School 1/ High	10	263	T1S1 T2S1
School 2/ Medium	23	762	T1S2 T2S2
School 3/ Low	12	275	T1S3 T2S3

Table 1: Coding of schools and teachers

Overview of the Findings

The findings in this study indicate formative assessment techniques used by primary school teachers and the challenges that come with adopting formative assessment. According to our findings, primary school teachers employ a variety of formative assessment techniques (See Table 2) in order to assess students' knowledge and skills. However, they usually face different challenges while applying formative assessment techniques.

We summarized our findings into two sections in relation to the research questions: (1) the formative assessment techniques that primary school teachers use, and (2) the challenges primary school teachers face while applying formative assessment.

Theme 1: Formative assessment techniques

Based on findings through class observations and interviews we revealed that teachers use various formative assessment techniques in their classes.

According to collected data through interviews and observations, primary school teachers aim to apply the formative assessment in order to (see Figure 1):

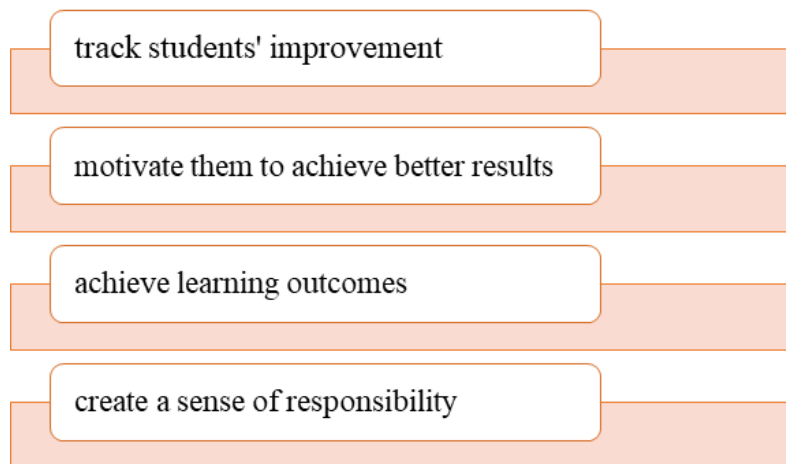


Figure 2: Aims of formative assessment

Assessment Framework (Schemes)

Assessment Concept in the General Education System for the Republic of Azerbaijan (2009) defined standards based on an assessment framework including 4 levels: 1st level presents the lowest and 4th level presents the highest performance indicators. A framework defines specific goals and requirements (criteria) by informing students about the criteria used in performance appraisal, how their work will be assessed, and what is required of them. These schemes provide a framework for assessing progress in the learning process, better assessing the quality of student work, and providing feedback to others on the quality of work. The elements

of assessment schemes include (Assessment Concept in the General Education System for the Republic of Azerbaijan, 2009):

1. areas to be assessed
2. assessment scale to assess different levels of achievement,
3. word or number describing the level of achievement (level label),
4. word or phrase (level descriptor) describing the level of achievement in more detail,
5. specific examples which focus on each achievement level (level indicators) related to the tasks performed,
6. the expected result (standards).

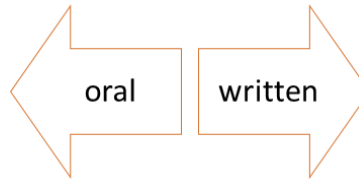
Teachers who participated in interviews mentioned that formative assessment assists them to measure to what extent their students gained certain knowledge and skills in the learning process. Teacher T2S3 stated:

“...to track my students` improvement and define to what extent they acquired the transmitted knowledge”.

At the same time, teachers consider formative assessment as an influential factor in making students feel responsible for their education. Teacher T1S1 pointed out:

“Using formative assessment, I aim to make students feel responsible for the classes”.

Based on the data collected through the observation of classes and interviews we revealed that formative assessment is provided in two different forms:



Teachers mainly used oral assessment throughout the lessons we observed. This technique makes teachers assess all students due to participation in class discussions, question-answer parts and presentation of group work. Although they did not tend to assess students with the written tasks, three of the teachers used them in School 1 and School 3 (see Table 2).

Oral	Written
Questioning	Tests
Discussion	Home tasks
Presentation <ul style="list-style-type: none"> • Individual • Group 	Exercises
Practical Activities	Dictation
Games	Short essays
Role-playing	

Table 2: Oral and written assessment techniques used by the participant teachers

Questioning. This technique was the most frequently used by the participating teachers. They believe that questioning saves time and enables the entire class to be assessed. Based on our

observations, the teachers mostly do not give “wait time” to the students in order to think and respond to the questions. When students remain silent and do not respond to the question, the teacher moves on to the other students and asks the same question. One of the teachers we observed was using Popsicle sticks to call the student in order to respond to the question. As Clarke (2005) mentioned, it helps to involve all the students in the questioning. We concur with the author, as all the students in the class were attentively listening to the teacher and waiting their turn. Teacher T1S2 mentioned the importance of inquiry-based questions:

“...In oral assessment, I prefer research-based questions. What I value most is that the child answers the question logically and with prior knowledge...”

However, not all the time they were using thought-provoking questions. They sometimes used “yes/no” questions that do not have a positive effect on student learning (Black & William, 1998).

Self-Assessment

As mentioned by interviewed teachers, students are involved in self-assessment to evaluate how well he/she answers questions or participate in class discussion. Self-assessment plays an important role in students` grades when teachers make students realize what are their strengths and weaknesses. Andrade and Valtcheva (2009) added that this formative assessment process involves students judging the quality of their own learning.

In some cases, teachers use self-assessment when they do not have an intention to evaluate students` performance directly. As Teacher T2S3 mentioned, self-assessment is a tool

for a teacher if she is not satisfied with the student's answer and intends to make the student analyze his/her own learning:

“I use self-assessment when I do not like a student's answer and I add “Imagine that I am not here, evaluate yourself how you answered the question, how you did this exercise”

Besides, students who are involved in evaluating their own learning take on a responsibility and feel themselves at the centre of the teaching and learning process. This assessment strategy changes students' attitudes toward the grading process and encourages students to focus on what knowledge they achieved rather than what grade the teacher assigned for them.

“To create a sense of responsibility in my students I ask them to evaluate themselves. I say “Do you like your answer? If yes, please give your reason”. If my student does not approve, his/her performance states that, “Yes, teacher, I would be better, but I could not...”. In this way, I try to make my students realize their weaknesses in the third person. It really works. (Teacher T2S3)

According to research findings, we can differentiate two distinct beliefs of teachers about self-assessment. Firstly, as Harris and Brown (2013) defined, teachers do not rely on the accuracy of students' evaluations in comparison with teachers' evaluations. For this reason, some teachers do not take self-assessment results into consideration and the results have little impact on students' final grades. Teacher T1S3 stated:

“I ask my student if you were a teacher how would you evaluate yourself? Mostly, they choose the highest grade (5) as he/she does not want to see weaknesses”

On the other hand, some teachers (Teacher T2S1 and Teacher T1S3) appreciate the positive role of self-assessment on students. Teachers stated that when they create a chance for students to evaluate themselves, they try to participate in class discussions actively and do exercises better to evaluate themselves with higher grades. While observing the 1st-grade students (in School 1), we noticed that at the end of the class the teacher asked the students to make a reflection to remind them of what they learned in the class. All students started with one expression or sentence about what they learned and how they performed in the question-answer part or specific activity.

Peer-assessment

Teachers also use peer-assessment for evaluating group and pair activities as well as individual presentations. According to Topping's definition (2017) "the peer assessment can be quantitative (assigning a number with respect to a grade) or qualitative (giving rich verbal feedback on positive and negative aspects and possibilities for improvement) (p.4)". According to research findings, students are suggested to evaluate the peer's activity orally expressing how he/she succeeds in a certain task. While evaluating group works students are also assigned to use a quantitative form of peer assessment by using points or marks.

Interviewed teacher (Teacher T2S2) emphasized that students' evaluation sometimes is biased as they compete with each other:

"They sometimes assess their peers subjectively... for competition. Sometimes the feeling of jealousy influences their decision. But in general, they are unbiased."

Besides, according to Teacher T2S2's experience, peer assessment strengthens students' listening and analytical thinking skills. In other words, when students know they will

assess his/her classmates for certain tasks or activities they are more involved in the learning process. On the other hand, peer assessment practice improves students' critical thinking skills.

Teacher T2S1 highlighted the significance of the peer assessment as the following:

“Groups investigate and evaluate each other’s participation. They state positive and negative aspects as to which group performed well. Peer assessment requires them to concentrate on the lesson... as a result, their concentration skills improve”

Group Assessment

Class observation and interview findings indicated that group activities are widely used in the practice. During the group activities, the groups are evaluated for the following criteria defined (see Figure 1):



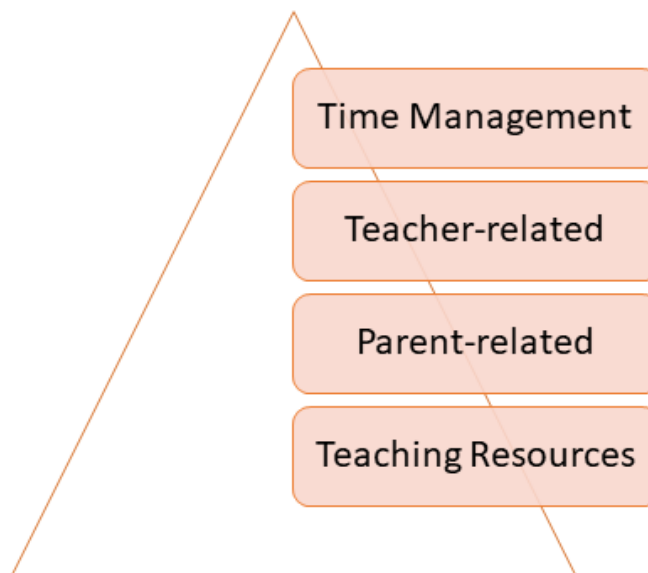
Figure 1: Criteria for assessing group activities in the classroom

Each group gains separate points on a scale of 1 to 10 for each criterion and total points determine each group's final grade. The final assessment can be given orally by the teacher or in a form of a written assessment reflected in the students' planners (diaries). Along with the

teacher's assessment, each group assesses other groups with points (1-10) and the results affect the final grade assigned by the teacher.

Theme 2: Challenges faced by primary school teachers while using formative assessment. We have interviewed six primary school teachers and observed their different lessons in order to determine the challenges they experience when they use formative assessment. They honestly shared their challenges with formative assessment and its usage. We will discuss our findings on teachers' challenges in four subgroups. The following chart demonstrates these 4 subgroups (see Figure 2):

Figure 2: Teachers' challenges while applying formative assessment



Time Management Challenges. As we mentioned before, we have interviewed six teachers and four of them mentioned managing time while implementing formative assessment as one of the main challenges. Time to assess and give feedback to all the students orally and written are not easy to do in 45 minutes. According to Teacher T1S1), if there are more students in the class, a

teacher cannot assess all the students. She has 35 students in the class, so it is difficult to assess all the students and give feedback as she pointed out. As the teacher shared:

“It is not possible to assess the students if there are too many students in the class... Sometimes I am not able to assess them; the topic is over; it is break time, and it's time for the kids to eat... I use that 5-10 minute break to make a formative assessment. I personally call the students and tell them my opinion during the break. Either in writing or orally. However, break time is also not sufficient to talk with all the students. I can only give feedback to four or five students during the break”.

One of the teachers who participated in our study also mentioned that she could not find enough time to write feedback to each student. Teachers write feedback on the students' notebooks and students' diaries. She pointed out that written feedback was mainly for parents since students in primary school were not more likely to read and improve their weaknesses (reflect on their learning). She stated that even students did not understand as well. However, parents were getting informed about how her/his student was doing by reading that feedback, as she mentioned. Parents assist teachers to improve their children by taking feedback into consideration.

Teacher T2S1 thought that the textbooks did not contain enough activities that assist teachers to assess students. Therefore, teachers are supposed to create additional activities, and tasks themselves in order to evaluate students' knowledge on topics, as she noted. She mentioned that it took a lot of time and they could not manage to do all these things at the same time since they had more responsibilities.

“...There is a scarcity of educational materials. The teacher is overworked. The teachers are frequently supposed that they must compile and write everything on their own. They should have their own creativity, I do not object to that. However, the teacher's daily workload is substantial. We do not have sufficient time to do all these. Checking formative assessments and summative assessments takes time. We don't have ready-made activities for implementing formative assessments on hand. It is not included in the given textbooks. There isn't much to work with”.

Teaching-related challenges. Teachers may face challenges in terms of formative assessment as a result of their teaching styles and strategies, according to our observations and interviews. The main challenges we observed, and teachers mentioned are:

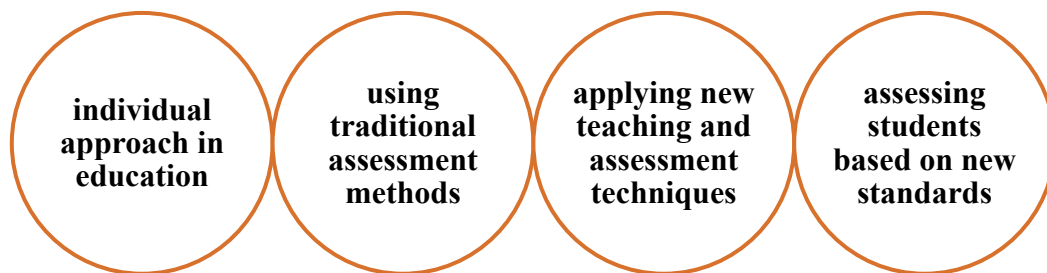


Figure 3: Challenges in Formative assessment related to teaching strategies

When we asked teachers about challenges, they are facing in terms of applying formative assessment, they were not more likely to share with us at first. Most of them mentioned that everything was on track although we observed they had difficulties. Therefore, we asked them whether their colleagues shared their challenges with the teachers or not. At this point, some teachers mentioned that they regularly observed their peers' lessons and they realized that they used traditional assessment techniques such as learning the text by heart. They also pointed out that teachers did not tend to use thought-provoking and creative class activities and questioning in order to assess students' skills and knowledge. Teacher T1S1 states:

“Teachers are inextricably linked to traditional education. Some teachers' lessons are not based on the curriculum. They then request that the student memorize the lesson, tell it by heart and assign a grade. Is it feasible to proceed with this?...”

One of the issues teachers stated in terms of performing the formative assessment is properly utilizing the teacher guidebook. Teachers do not use the guidebooks assigned to them. Some teachers believe that is due to teachers' reluctance to spend additional time reading the teacher guidebook before planning the lesson, while others believe that teacher guidebooks are not written clearly and well-organized. Teacher T1S1 mentions:

“The textbook is extremely well-organized. Teachers can accomplish a great deal if they follow the guidebook's instructions step by step. Teachers do not read or take advantage of it. They believe that I taught the lesson, left the class, and returned home, concluding my duties. Teachers must concentrate on their own development. I ask teachers during the training to assign supporting and in-depth activities to pupils. A generic task cannot be used to assess the entire class”

However, Teacher T1S2 believes:

“Textbooks are not always easy to follow, and the activities provided are not always aligned with the lesson objectives. In this step, we need to use teachers' guidebook. However, I think it is not well-organized to assist teachers”.

Our observations indicate that some teachers cannot involve all the students in the lessons. They work with a select group of pupils who are eager to answer all of the questions. Those teachers do not pay attention to the students who do not raise their hands in order to

answer the teacher's questions. In addition, in one of the classes we attended, the class read the story and the teacher was asking questions about what they were reading. If the student did not know the answer, she was not waiting for the student to think (wait time). During the individual activity, some students were puzzled due to their lack of comprehension of the story. Therefore, they could not write the given task which was based on the story. Some mentioned that they could not find the answers. The teacher said that they might open the story and discover the solution. Although this was the control practice used to determine whether students grasped the story, the teacher advised students to glance at the story during the task.

One of the challenges mentioned by the teachers is to assess students based on new standards presented in Assessment Concept (2009). Before the curriculum began to be implemented in Azerbaijan, students were graded with a 2-5 grading scale. For instance, the teacher might give the student five minus (5-), if she thought the student deserved neither five nor 4. However numerical grading for formative assessment is not defined in Assessment Concept in the General Education System of the Republic of Azerbaijan (2009). Teachers should assess the students with some descriptive words or expressions and with levels (such as the acquisition of knowledge and skills low, medium or high, the highest level. As a result, Teacher T1S3 stated how she experienced difficulties evaluating students' performance properly:

“...We assess the student individually, and once again, you can see that the student wrote in such a way that he did not receive a perfect 5, or a perfect 4. You cannot decide how to assess. You recall how teachers used to write grades in the past; 4- or 5-. That is no longer conceivable. As you can see, the child has worked in such a way that his performance cannot be properly evaluated. However, I could not find a word to evaluate it properly. That is the problem...”

Parent-related challenges: Teachers are concerned that parents are mainly interested in the summative assessment outcomes. They are unconcerned with daily grades, which are determined by ongoing frequent assessment, *they are more concerned with summative assessment. Why? Because the final grade is given on a summative test. Our formative diary, as well as students' diaries, are used to record formative assessments. At the end of the first and second semesters, students are not evaluated on the basis of formative evaluation...The parent is concerned because the final grade is based on it; it is the result of a summative assessment; it is recorded in the journal, and it is the basis upon which my child will be an excellent student, or not. Therefore, summative assessment is more important to the parent.*"

Parents, on the other hand, have a tendency to misinterpret the results of daily formative assessments. If the students' performance is evaluated at the 1st level (lowest performance in-class activities or encountering difficulties while completing tasks), parents may conclude that the students are unable to learn anything or that the teacher is not paying attention to the students' advancement. Teacher T2S1 mentioned that parents have difficulty comprehending what the goal of formative assessment is, as well as the requirements of it, which include:

"But the parent does not understand what the requirement was and at what level the child responded to it...., what was the requirement and in what part of the demand the student was able to show himself/herself".

Occasionally parents express skepticism about oral assessment and request that teachers record daily or weekly class evaluation results in the students' planners or their copybooks, as Teacher T1S1 stated:

“In September, at the beginning of the academic year, I explain to all my parents how I will assess students and emphasize the possibility of not assessing students in oral or written form every lesson due to time limitation, lesson planning and other factors they want to see daily assessment results in student diaries”. (Teacher T1S1)

Additionally, teachers say that parents do not assist them in enhancing their children's academic performance. Teachers believe that students are educated in school, but they rely on parental assistance at home. However, some parents are uneducated, some are irresponsible, and do not help their children. Teacher T2S3 pointed out:

“...I am deeply disturbed by my parents' attitude. I don't assign much homework because I'm aware that parents are uninvolved and unaware. As soon as my parents see me, they immediately inquire as to how to do it, how to write it... I inform them that I have covered everything in class and that I would assign solely creative assignments. For instance, today I taught a three-colored flag and I assigned homework to the students. I give them to describe our flag and supply pertinent facts about it. However, I'm confident three to four parents will return to learn how to perform this work...”

Teaching Resources Challenges. Three of the six teachers we interviewed had concerns about the teaching resources. We mean assessment materials, updated textbooks, and didactic materials by teaching resources.

Almost all the primary school teachers who participated in our study mentioned the shortage of ready-made formative assessment tools. They pointed out that teachers were not provided with teaching supplies and additional materials as well. As the teacher shared, activities

in the student's book and workbook are not sufficient to assess what the student has learnt on that day.

"They do not contain enough activities. Therefore, it is difficult to find the ways to assess students' knowledge about the topic", Teacher T1S3 mentioned.

Document Analysis

As our teachers mentioned, using formative assessment journals is not required under the law (Rules for Attestation (in-school assessment) of Students in the General Education System, 2018)

However, two of our participants (Teachers T1S1 and T2S1) regularly use these journals and we analyzed their formative assessment journals since School 1 requires teachers to use them daily. The other two of our participants teach in the 1st grade (T1S2 and T2S3) and as they stated, in the 1st-grade teachers only record students' attendance in the journals. Teacher T1S2 and Teacher T2S2 have personal notebooks in which they write about the students, their weaknesses, and the topic that they need more help with. As they pointed out, it helps to track the students. Teacher T1S2 mentioned:

"Writing formative assessment journal requires additional time. There are a lot of details in it that I need to complete. However, I do not have more time to write it daily. In this step, my personal notebook helps me a lot. I keep track of everything that happens with my students' learning; what they don't understand; what topics they excel in; what areas I need to improve on with them, and so on. My class has 35 students. If I do not use it, I may quickly forget what to do."

As we analysed, the next table shows how they record information in their personal notebooks (see Table 3):

Table 3: Formative assessment in teacher`s notebook

The date of the day/ The day`s topic	
Students` names	Teacher`s note about each student
1.	
2.	

We have also analysed formative assessment journals provided by two of our participants. In formative assessment journals, each lesson is represented by a separate page in the formative journal. Teachers should prepare a lesson plan that includes standards, objectives, assessment criteria, and a list of students who will be evaluated during the lesson. When we looked at the assessment records for Azerbaijani language and math lessons, we discovered that teachers create different assessment criteria for each topic that they teach.

CHAPTER 5. FINAL PRODUCT

The purpose of the workshop is to introduce formative assessment and its essence; propose solutions to the teachers' challenges on formative assessment; and teachers will be involved in discussion, and they will brainstorm on formative assessment.

The objectives: By the end of the workshop teachers will be able to:

- explore a variety of formative assessment techniques.
- find solutions to the challenges when they apply formative assessment.
- identify the essence of formative assessment.
- differentiate formative assessment and frequent assessment.

Duration: 2 hours long

The number of participants: Six teachers who participated in our project and primary school teachers from the chosen school who want to take participation in the workshop.

Place: ADA University

Our study results informed us that the teachers know the role of formative assessment in the learning process (to monitor students' learning). However, they are not aware of its essence. According to the conducted interviews, we may say that teachers define formative assessment as the assessment carried out frequently by the teacher. They mentioned the feedback they gave each lesson like "Excellent", "Great", "Try harder", "You can do better", and the daily grade they assigned to the students. However, formative assessment is not about grades (Hasanov et al., 2020). Therefore, we will devote the first part of the workshop to the formative assessment and how teachers need to understand and apply it. Our workshop will begin with a brainstorming activity in which teachers will share their thoughts on the question "What is formative assessment?" Overall, the workshop will cover the following topics:

- The main features and purpose of formative assessment; its difference from frequent assessment.
- How formative assessment is incorporated into classrooms abroad.
- Our research results
- How to overcome the teachers' challenges in terms of formative assessment.

Then, participant teachers will be given an activity during the training in which the participants individually will be required to prepare a sample formative assessment activity to present to the audience. All the participants will get feedback from other participants, and we will share what we think about their assessment activity.

At the end of the workshop, teachers will be involved in a question-and-answer session in order to clarify certain points for themselves.

CHAPTER 6: CONCLUSION

In general, when the effect of formative assessment on students' learning attitudes toward the course was evaluated, as well as when the results of the research and the literature were taken into consideration, it was determined that formative assessment significantly increased students' learning attitudes toward the course (Wininger & Norman, 2005).

Overall, according to our findings, the teachers use formative assessment. However, they do not understand the essence of it, and they undergo some challenges while applying different formative assessment techniques such as managing time effectively, using teaching resources effectively and challenges related to parents.

Based on our research, the major evaluation strategy in the schools where the research was conducted is the formative assessment approach. Formative Assessment is employed so teachers may adjust their instruction to promote better learning which will lead to better future assessment results (Trumbull and Lash, 2013). The results of the student's formative assessment are not recorded in the student's assessment transcript and are not combined with the summative result. A summative assessment grade is used as an important and final result and recorded in the student's assessment transcript. According to our observations in the classroom and our interviews with the same teachers, this results in student dissatisfaction and variability in outcomes.

Although the Institute of Education under the Ministry of Education involves teachers in various workshop programs, and teachers who successfully complete the programs receive certificates, some teachers are unable to transfer new knowledge and skills gained through workshop programs to their classrooms. The most significant influencing factor is that if teachers

participate in workshop programs once or twice, they are considered to have received sufficient professional development.

Although the Ministry of Education involves teachers in formative assessment training programs in the Institute of Professional Development of Educators the study findings indicated that training programs should be ongoing to overcome the difficulties and misunderstandings of teachers in formative assessment. In addition, training can be set up to benefit from the experience and methods of instructors with experience in private schools. Simultaneously, the research proposes increasing curriculum-based formative assessment materials in order to minimize teacher workload. The Ministry of Education may design curriculum-based new test banks, open-ended questions on each topic, or websites that feature interactive and lesson-appropriate questions and test samples for elementary school. Teachers, on the other hand, can use the time they spend developing formative assessment materials to develop themselves and enhance their practice.

APPENDIX A

CONSENT TO PARTICIPATE IN A CAPSTONE PROJECT

Capstone Project Title: Exploring Formative Assessment in Public Primary School Classrooms in Baku

Researchers: Elana Israfilova, Gozal Safarova, Sevinj Ismayilli

Purpose of the Capstone Project: The purpose of this study is to investigate the techniques of formative assessment in public primary schools in Baku, what formative assessment techniques teachers use and what challenges they encounter while applying formative assessment in the classroom.

Participants' responsibilities: The participants will be asked to participate in a semi-structured interview, which will last 45-60 minutes, and answer the questions given by the researchers. The interview will be held in a format that the participant prefer, either face-to-face or via Zoom or Microsoft Teams. The interview will take place at a time and location that is convenient for you.

Research Benefits: Researchers believe that if formative assessment research is conducted in public schools' primary grades, the results will help to improve formative assessment in the primary grades.

Withdrawal from the Study: At any moment and for any reason, you have the right to withdraw from the study. If you want to withdraw from the study or do not respond to a specific question, your relationship with the researcher will not be affected, and all data will be eliminated.

Confidentiality: The researchers will record the interviews with your consent only. Your personal information will be kept private, and all responses will remain anonymous. The research data will be accessible only to the researchers.

If you have any questions about the research, please feel free to contact us by e-mail:

eisrafilova13188@ada.edu.az, gsafarova13231@ada.edu.az, sismayilli@ada.edu.az

If needed, you can also contact our supervisor Dr. Ulviyya Mikayilova

Address: Ahmadbey Aghaoglu str. 61 Baku, 1008

Tel: +99412 437 32 35 ext. 144

E-mail: umikailova@ada.edu.az

Thank you for agreeing to be interviewed as part of the above-mentioned Capstone Project.

This consent form is necessary for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation.

I have read and understood this consent form and I agree to participate in the study.

Signature : _____

Date : _____

Participant : _____

Signature : _____

Date : _____

Researchers : _____

APPENDIX B

INTERVIEW QUESTIONS

1. If you do not mind, introduce yourself, your educational background, years of experience, the grade you are teaching, subjects you are teaching.
2. Do you use formative assessment, if yes how long have you used?
3. What is your purpose to apply formative assessment in the classroom? How it helps you in teaching process?
4. What formative assessment techniques do you use? Can you give examples of those techniques?
5. Do you use peer and self-assessment techniques?
6. How do use formative assessment results to improve student learning?
7. What challenges do you encounter while applying formative assessment?
8. Do your colleagues ask for help to overcome their challenges on formative assessment? What problems do they mention?
9. Do you plan formative assessment prior to class? Or how do you plan it?
10. How much time it takes to assess students? (oral and written)

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