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The Effects of Online Formative Assessment on EFL Learners' Performance and Their Perceptions of  
Its Effectiveness

A thesis submitted in partial fulfillment of the requirements for the degree Master of Arts in  
Teaching English as a Foreign Language

By

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## **Abstract**

Assessment for learning or formative assessment is considered an inseparable part of effective teaching since it is believed to enhance students' performance. The purpose of this study is to investigate the impact of formative assessment tools on students' performance in an online environment and analyze both the students' and the teacher's perceptions of its effectiveness in the Armenian EFL context. The participants were 25 high-elementary level students from the English afterschool program in Armenia and their teacher. Within the framework of action research, a quasi-experimental study was conducted with the two groups of students: treatment and comparison groups. The treatment group was exposed to various online formative assessment techniques, while the comparison was not. Both quantitative and qualitative strands were incorporated in the research. The quantitative data were obtained through pre-and post-tests, while the qualitative data were collected through a questionnaire with students and teacher interview. The statistical analyses of quantitative data indicated a significant difference between the post-test results of treatment and comparison groups: the treatment group students revealed better results than the comparison group. The questionnaire and interview results revealed that both the students and their teacher had solely positive attitude towards the effectiveness of various formative assessment techniques.

*Keywords:* Formative assessment, Assessment for learning, Online formative assessment tools, Quizzes, Online Feedback, Self-assessment, Peer-assessment

## CHAPTER ONE: INTRODUCTION

Assessment plays a crucial role in education. Different types of assessment aim to enhance learning and ensure that students meet intended learning objectives by determining students' abilities, understandings, and knowledge (Al-Shara'h, 2013; Bachman, 2004; Brown, 2004; Coombe, 2017). Both formative (*assessment for learning*) and summative (*assessment of learning*) assessments support and improve students' learning and are tightly embedded in curriculum and instructions.

The significance of formative assessment in student learning was discussed by different scholars and was rated as one of the most effective tools to enhance student achievement (Stiggins, 2005; William, 2011; William & Black, 1996). William, Lee, Harrison, and Black (2004) also found that integrating formative assessment into teaching resulted in enhanced student performance. Moreover, assessment for learning creates opportunities for teachers to gain insight into students' knowledge and adjust the instructions to students' needs.

In Armenian ESL/EFL classrooms, assessment has been merely used for recording students' achievements (test scores) at the end of the learning process. Recently, some educational institutions and private language schools shifted from traditional grammar-translation to communicative language teaching. This transition impacted perceptions of language testing and assessment, triggering growing interest in investigating the effectiveness of formative assessment tools in the Armenian ESL/EFL context. Most of the studies focus on traditional face-to-face classes and certify the positive impact on students' achievements and motivation.

## **1.1 Statement of the Problem**

The shift to online teaching mode fostered the use of innovative learning technologies and created a need for adjustment of formative assessment strategies to online settings. Online formative assessment was an unexpected challenge that all the school teachers had to face. Though various formative assessment tools are being implemented by the Armenian instructors of language schools, and different studies have supported their effectiveness, and positive impact on learners' achievements (Balasanyan, 2011; Hovhannisyan, 2018; Hovsepyan, 2013; Torosyan, 2011), not all of those tools might be effective in an online environment and positively affect learners' performance. Taking into consideration the fact that most of the studies in the Armenian ESL/EFL context focus on traditional face-to-face classes and the fact that no research has yet explored the efficacy of formative assessment tools in online settings, the present study aims to investigate the effects of online formative assessment on ESL/EFL learners' performance and their perceptions of its effectiveness in the Armenian EFL context.

## **1.2 Significance of the Study**

Analyzing the effectiveness of formative assessment tools implemented in an online environment and the extent to which EFL learners' performance is enhanced through the use of those tools will be of great significance for the afterschool English program teachers and pre-intermediate level students. Hence, this action research aims at finding potential gaps and raising teachers' awareness of online formative assessment strategies. The teachers will be equipped with practical tools for online assessment. Moreover, the findings of the study will reveal the afterschool English program students' and the teachers' perceptions of the effectiveness of various formative assessment tools. Altogether, raising awareness of effective formative assessment techniques could eventually have a snowball effect raising

awareness among other school teachers (both language centers and public schools) in Armenia.

### **1.3 Research Questions**

This research project seeks to answer the following research questions:

1. To what extent does the implementation of formative assessment strategies improve EFL students' performance in online settings?
2. What are the students' and the teacher's perceptions of the effectiveness of online formative assessment tools?

To investigate the questions raised by this study, several tools such as observations, interviews, questionnaires, pre-test, and post-test have been implemented.

## CHAPTER TWO: REVIEW OF LITERATURE

### 2.1 Assessment

In current educational practice, the notion of assessment and testing is sometimes used undistinguishably; however, assessment is “an umbrella term encompassing measurement instruments administered on a “one-off” basis such as tests, as well as qualitative methods of monitoring and recording student learning such as observation, simulations, or project work (Coombe, 2017, p. 2)”. In other words, tests are special assessment tools that measure students’ knowledge at a particular period (Brown, 2004).

While assessment is defined as a continuous interactive process that provides information about student performance or achievement, the main goal of assessment is not merely judging students’ performance but supporting their learning (Bachman, 2004; Al-Shara’h, 2013; William & Black, 1996). Hence, assessment is a large notion that integrates everything from high-stake tests to regular classroom tests and various other procedures such as observations, self-assessment, interviews, peer assessment, reflections, and others. Teachers implement different types of language assessment strategies to gather information on students’ abilities and knowledge (Garrison & Ehringhaus, 2007; Ketabi, 2014). The valuable information about students’ understanding allows instructors to adjust the instructions to students’ needs, thus facilitating learning and teaching.

Considering all the above mentioned, it can be stated that assessment is a continuing process that aims at determining students’ understandings, identifying their strengths and weaknesses. Besides, different assessment tools provide instructors with evidence of students’ abilities, allowing them to make relevant decisions and ensure that students meet the intended results.

## 2.2 Summative vs. Formative Assessment

Generally, there are two types of classroom assessment: assessment for learning (formative assessment) and assessment of learning (summative assessment). Both of them have been honored for years. Let us start from the very beginning.

Michael Scriven (1967) was the one who articulated the terms summative and formative assessment for the first time. He highlighted their differences concerning the information-gathering procedures and their final goals (Stiggins, 2005). Later on, Benjamin Bloom (1971) identified the differences between formative and summative assessment, stating that summative assessment referred to tests conducted at the end of the learning process. The term formative assessment was used for assessment conducted during the learning process. While summative assessment focuses merely on grading students' achievements, the formative assessment's primary goal is to support and foster student learning by playing a vital role in improving a curriculum (Bloom, 1971; Stiggins, 2005).

Different scholars suggested various definitions of summative assessment through decades. Garrison and Ehringhaus (2007) defined summative assessment as a tool to identify what students know and do not know at a particular point in time. Moreover, Mantz Yorke (2003) states that summative assessment aims to determine whether the course objectives are met or not through administering exams at the end of the course. However, summative assessment should not be only associated with final tests. There are several types of summative assessments such as tests at the end of the unit or chapter, summative exams at the end of the term and semester, pro-term assessments, state assessments, final projects, and others (Garrison & Ehringhaus, 2007). Hence the data obtained through these tools may be helpful for educational institutions to evaluate program effectiveness and further-curricular improvements (Iliya, 2014; Stiggins, 2005).

Considering all the above mentioned, summative assessment or assessment of learning measures students' overall performance and understanding usually at the end of the year, course, program. Thus, students' strengths and weaknesses are identified after the learning has taken place by comparing them against some standards and criteria (Black & William, 1998; Bloom, 1971; Brown, 2004; Crooks, 2002). The lack of feedback limits the positive impact on learning; still, the gathered information may serve as a good platform for boosting teaching and learning.

Conversely, the concept of formative assessment or assessment for learning is defined as a process that monitors students' progress, provides appropriate feedback during the learning process, hence supporting learning and teaching (Black & William, 1998; Clark, 2012; Crooks, 2002 Garrison & Ehringhaus, 2007). Gattullo (2000) described the formative assessment as “an ongoing multi-phase process that is carried out daily through teacher-student interaction, and aims at modifying teaching activities to improve learning process and results(p. 279)”. The instructional adjustments are made to meet students' needs and support their learning. Table 1 presents the main characteristics and differences of formative and summative assessment as attested by several scholars (Black & William, 1998; Bloom, 1971; Clark, 2012; Crooks, 2002; Wiliam, 2006).

**Table 1**

*The Characteristics of formative and summative assessment*

<b>Assessment</b>	
<b>Formative</b>	<b>Summative</b>

Aims to monitor and improve student learning.	Aims to assess learning outcomes at the end of the course.
An ongoing process conducted during the learning.	Conducted at the end of the course, program, year.
Periodic, often informal reporting.	Cumulative record and assessment of what has been learned and accomplished.
Provides students with feedback.	Yields grades or scores.

### 2.3 Formative Assessment

Formative assessment, also defined as assessment for learning, has been around for many decades. Scriven (1967) was the first one who used the concept “formative evaluation” regarding curriculum improvements, while Bloom et al. (1971) were the first to expand its usage to its present meaning. Definitions of formative assessment are abundant, so let us elaborate on some of them.

The topic of formative assessment has been broadly reviewed by Black and William (1998). They describe formative assessment as ‘all those activities undertaken by teachers and by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged’ (p.10). Under the word activity, the authors mean teacher observations, tests, homework, and classroom discussions. Nevertheless, varied definitions of formative assessment are suggested by other scholars, describing formative assessment as not just an ‘activity rather than a ‘process’ applied during



instructions to provide feedback for adjusting teaching and learning to students' needs to enhance their achievements (Altman, 2010; Melmer, Burmaster, & James, 2008; Popham, 2008; Ruland, 2011; Stiggins, 2002). None of the definitions mentioned above is more precise than the other, as all the characteristics are specific for formative assessment. McManus (2006) claims, "formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes" (p.3). The main goal of assessment for learning is to identify the gaps that students have and find ways to fill in those gaps (William, 2011).

According to Stiggins (2005), formative assessment has been evolved through decades from formative assessment to assessment for learning. It is stated that "the alternative is to use many assessment methods to provide students, teachers, and parents with a continuing stream of evidence of student progress on mastering the skills and knowledge that underpin or lead up to state standards. The option has been labeled *assessment FOR learning*" (p.327)." The main characteristics of assessment for learning that differentiate it from "traditional" formative assessment were thoroughly discussed by Stiggins (2005), and his claims are represented in Table 2.

Table 2

*Differences between Assessment for Learning and "Traditional" Formative Assessment*

<b>"Traditional" Formative Assessment</b>	<b>Assessment for Learning</b>
Intends to inform only teachers about students' achievement.	Intends to inform both teachers as well as students about their own learning.

Teachers are educational decision-makers.	Students are liable for instructional decisions.
Regular assessment of student mastery of the standards.	Constant focus on students learning progress.
Teachers assess and monitor the learning process.	Students learn self-assessment techniques and set their own goals.
Students mainly learn about the standards.	Students learn about learning expectations from scratch by examining models of strong and weak work.

Considering all the above mentioned, formative assessment or assessment for learning is a complex process accomplished through teacher-student teamwork on a daily basis. The purpose of formative assessment is to identify students' learning gaps through various activities and modify teaching instructions and activities to students' needs to close the gap between where they are now and where they need to be.

#### **2.4 Formative Assessment Techniques**

According to Beebe, Vonderwell, & Boboc (2010), "Effective assessment techniques can improve an instructor's understanding of student needs and provide the development of a learner-centered classroom (p. 6)." Assessment for learning can significantly impact student achievement and knowledge; hence, formative assessment techniques and tools need to be chosen carefully to serve the intended purpose.

Formative assessment tools such as observations, reflections, quizzes, self, and peer-assessment, feedback can be implemented regularly throughout the course: after each class or each unit, weekly, and daily. Haugen (1999) states that these techniques are most effective when applied frequently, and the obtained information is used for immediate instructional adjustments (Fisher & Frey,2014). The implemented methods may vary depending on the classroom settings and instructional needs.

The following techniques are a few of the most frequently used formative assessment methods implemented during the action research. Let us elaborate on them.

#### **2.4.1 Observation**

Observations are considered one of the essential assessment techniques for learning since they help teachers gather valid evidence of students' strengths and weaknesses. Various observational techniques allow instructors to monitor students' learning process and develop effective instructional changes that aim to improve students' learning. Here are a few instruments and methods used through observations.

Field notes aim to take notes about students' interaction during the class without judging the process or expressing opinions.

Anecdotal notes aim to observe individual student behavior and skills during the lesson process and provide cumulative information about student learning. The data are concise and objective and may be shared with the student, teachers, and parents.

Observation checklists are the perfect means of gathering information about student's performance concerning the program's specific outcomes. Instructors use observation checklists for observing an individual student or a group.

### **2.4.2 Exit Tickets**

Exit ticket, also known as a one-minute paper or one-minute reflection, is another formative assessment technique used for obtaining systematic feedback from students about their understandings. Information gathered from students' responses can serve as a shred of valid evidence to identify students' strengths and weaknesses and modify instructions to their needs. Angelo & Cross (1993) suggest including two questions in the exit ticket: The first one to identify what students have learned during the lesson, and the second one aims at determining what students are still struggling with. For instance,

What is the most important thing you learned today?

What question do you still have?

Exit tickets can be a helpful tool for instructors to check students' understanding and progress in online settings (Vonderwell & Boboc, 2013). Exit tickets are implemented regularly at the end of each class. The instructional design of the exit ticket and questions included in it can be changed and modified so students do not lose their interest and motivation to participate (Vonderwell, 2004).

### **2.4.3 Frequent and Short Quizzes**

The advocates of frequent quizzes claim that they motivate students and positively affect their learning, while the opponents assert that quizzes constrain their knowledge. However, different scholars state that short and frequent quizzes (both graded and non-graded) have positive impact on learners' achievements, enhance active learning and lessen the stress they usually have during the final exam (Black & William, 1998; Cook & Babon, 2017; Ghorbani, 2017). Regular quizzes conducted weekly at the end of the specific topic or program can serve as a perfect reviewing activity as well as provide instructors with

valid evidence to make instructional changes. According to Gibbs & Simpson (2004), even the relationship between graded quizzes and effort is not straightforward, still frequent quizzes or tests may distribute their efforts weekly, fostering students' learning.

In a virtual environment, online quizzes are effective techniques for enhancing active learning and engagement, thus impacting students' final achievements. Moreover, they are time efficient from instructors' perspective (Cohen & Sasson, 2016; Cook & Babon, 2017; Nakos & Whiting, 2018).

#### **2.4.4 Self-Assessment**

Self-assessment is one of the most influential and essential formative assessment techniques to gauge students' progress. If students can identify their strong and weak points and see their progress, they will know what to concentrate on and improve their learning in the best way (Black and Wiliam, 1998b). Besides, participation in their own assessment allows students to become more autonomous learners (Harris, 1997; Oscarson, 2013). There are different techniques such as checklists, questionnaires, rating scales, journals, portfolios, and others that students can use for self-evaluation. The principles of self-assessment techniques are not changed while delivering online instructions and are of great importance for ongoing improvements. Nevertheless, students need sufficient teachers' guidance and much practice to be able to make meaningful judgments about their own learning. According to Hung (2019), regular practice, appropriate guidance provided by the teacher, and evaluation combined with reflection are factors to influence successful self-assessment accomplishment.

Table 3 presents the advantages and disadvantages of self-assessment on the basis of different studies (Black and Wiliam, 1998b; Harris, 1997; Milne, 2014; Oscarson, 2013).

**Table 3***Advantages and disadvantages of self-assessment*

<b>Advantages</b>	<b>Disadvantages</b>
Fosters student engagement in the assessment process.	Can be subjective: students may over-evaluate or under-evaluated themselves.
Promotes responsibility.	Time-consuming.
Helps students to be aware of their strengths and weaknesses.	Students might misinterpret the criteria.
Helps students to become autonomous learners.	May not be taken seriously.

**2.4.5 Peer-assessment**

Peer-assessment is one of the most frequently used techniques of formative assessment. According to Topping (1998), peer assessment aims to enhance learning while it is happening. Peer-assessment enables students to give and receive a more considerable amount of feedback, which is beneficial for students' involvement (Edwards, 2013; Miller, 2002). Peer-assessment can be used for evaluating both oral and written language skills, and tools for peer-assessment can serve the purpose of feedback and grading.

Peer-assessment has its benefits and drawbacks spotted by researchers, instructors, and students as with self-assessment. Table 4 summarizes some of the advantages and disadvantages of peer assessment based on various articles (Edwards, 2013; Hansen & Liu, 2005; Peng, 2009).

**Table 4**

*Advantages and disadvantages of Peer assessment*

<b>Advantages</b>	<b>Disadvantages</b>
Development of autonomy	It takes too much class time.
Saves teachers commenting time.	Requires time for student training and creating rubrics.
More time on evaluation, revision	Unwillingness to evaluate their peers or receive feedback from them.
Development of problem-solving, collaboration, and negotiation skills	Uncertainty in their language competence to provide meaningful feedback.
The amount of feedback	Peer-assessment may not be accepted as proper and trustworthy

Overall, there are many benefits of using peer-assessment as a tool of assessment for learning, while the drawbacks can be reduced through careful planning and student training.

Online settings and technologies can provide a better environment for peer assessment. Firstly, the online mode fosters anonymity, thus leading peers to more productive feedback. In addition, students can review their peers without time restrictions. Finally, online peer assessment and interaction can be recorded and stored for further evaluation and feedback. Hence, online environment and the use of technologies provide better opportunities for peer assessment implementation (Davies, 2000; Tsai, 2009).

#### **2.4.6 Feedback**

Effective and continuous feedback is one of the essential components of the learning process. According to Shute (2008), “formative feedback is defined as information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning” (p. 154). Feedback provided as a part of formative assessment empowers students to identify their strengths and weaknesses, thus leading students to a higher level of achievement and desired outcome (Brown, 2004; York, 2003). Besides its impact on student attainment, feedback is also considered a crucial factor to boost learning and motivation (Bandura, 1991; Shute, 2008; William, 2007).

Altogether, formative feedback aims at enhancing student knowledge, comprehension, and skills. However, a few researchers claim that feedback has no or even negative effect on learning (Baron, 1993; Butler, 1987; Craven, Harlen & Crick, 2003; Marsh & Debus, 1991). For instance, feedback that is constructed as critical and provided with grades or scores tends to hinder student learning and performance (Butler, 1987). Some researchers state that feedback facilitates student learning since it yields details of how to improve students’ responses rather than just showing whether their answers are correct or not (William, 2007; Williams, 1997). According to Shute (2008), “effective and useful feedback depends on three things: (a) motive (the student needs it), (b) opportunity (the student receives it in time to use



it), and (c) means (the student is able and willing to use it)” (p.175). Based on the results of an intensive literature review conducted by Shute (2008), the following tips for effective formative feedback should be taken into account:

Focus on a specific task, with recommendations on how to improve,

Provide detailed feedback to facilitate student learning,

Provide specific feedback,

Be precise and direct with a feedback message,

Keep feedback as simple as possible,

Give unprejudiced, objective feedback,

If students are diligently involved, do not interrupt them to give feedback,

Use immediate feedback for challenging assignments and delayed feedback for easy ones.

The primary purpose of formative feedback, whether provided in a traditional or online classroom, fosters student comprehension and knowledge. Conveying constructive feedback to students is of great importance since it boosts student motivation and engagement in the provided content. Online settings provide instructors with myriad opportunities (ranging from e-mails to more advanced tools) for productive and communicative formative feedback (Race, 2001). The examples of providing formative feedback to students are online quizzes, presentations, projects, and essays. Online quizzes allow instructors to include pre-written formative feedback seen by students at once (Hatziapostolou & Paraskakis, 2010). As student

engagement with feedback is of great significance for learning improvement, the techniques for providing online formative feedback should be considered thoroughly by instructors.

## **2.5 Recent Research on Online Formative Assessment**

Recent developments in education and the unexpected shift to online teaching mode due to Covid19 require the adjustment of various formative assessment strategies to online instruction. Identifying effective assessment methods appropriate for online teaching and understanding their possible implementation in monitoring student learning becomes of great importance for instructors (Anderson, 2004; Stödberg, 2012; Vonderwell & Boboc, 2013). The online platform and use of technologies provide a number of opportunities for assessing students and support assessment for learning.

Ellis (2013) and other scholars claim that in the past, the delivery mode of face-to-face classes was one of the critical obstacles for the effective implementation of various formative assessment tools. Face-to-face classes hindered accumulating the learning interactions and outcomes into a system for further investigation and evaluation to provide constructive feedback. However, nowadays, there are myriad opportunities with technologies to record both performance and assessment data for further investigation. Therefore, instructors have a thorough understanding of how students progress with various activities and determine what adjustments might be made to improve instructions (Spector et al., 2016). Moreover, the use of free learning materials available on online platforms can be used to enhance formative assessments.

According to Beebe, Vonderwell, & Boboc (2010), while designing useful formative assessment tools for online classes, the following points need to be taken into account: time management, student responsibility, and initiative, structure for the online medium, the complexity of the concept and informal assessment. Firstly, it is essential for instructors to

identify the time devoted to the specific strategy and how regularly it is implemented.

Formative assessment techniques aim to foster student learning by providing appropriate feedback as frequently as possible. Designing proper assessment tools and implementing them gives instructors more information about students' performance and achievements, simultaneously maximizing their participation and learning (Garrison, 2011; Vonderwell & Boboc, 2013).

It is equally essential for instructors to find diverse techniques to raise student participation in the assessment process. Instructors need to use various strategies while designing assessment tools and questioning strategies since all the factors mentioned above significantly impact students' motivation and engagement. Even the most exciting activity may bore students if repeated several times (Liang & Creasy, 2004; Vonderwell & Boboc, 2013). Instructional design of assessment tools is mutually interrelated with technological considerations, meaning that online learning platforms should fit in class nature to enhance students' success. Prior to designing assessment tools, it is useful for instructors to find out what devices they use or their connectivity options to ensure that the whole class has the availability to those tools (Beebe, Vonderwell, & Boboc, 2010; Vonderwell, Liang & Alderman, 2007). Creating a lesson plan for the whole online class helps instructors outline their strategies and materials, enhance students' engagement in the class process, and maximize their participation in the assessment process.

## **2.6 The Impact of Online Formative Assessment on Student Achievement**

The effectiveness of traditional (face-to-face) formative assessment and its positive impact on student performance has been recognized by different scholars (Altman, 2010; Melmer, Burmaster, & James, 2008; Popham, 2008; Ruland, 2011; Stiggins, 2002). Though the online environment provides myriad opportunities for constructive formative assessment,

investigating its impact on student performance takes a new significance in online settings (Anderson, 2008).

Many studies suggest that online assessment for learning enhances student engagement in the evaluation process and improves student achievement (Gikandi, Morrow & Davis, 2011; Ogange, Agak, Okelo & Kiprotich, 2018). The research results revealed that during the summative exam, students who took frequent formative online quizzes outperformed those who did not take online quizzes (Cohen & Sasson, 2016; Kibble, 2007). Additionally, students who were continuously engaged in self and peer assessment have the privilege to get productive feedback and spot their strengths and weaknesses (Davies, 2000; Tsai, 2009). McCarthy (2017) supports the previous suggestions and claims that online formative assessment serves as a good platform for collaborative learning and peer-assessment.

An experimental study showed that web-based formative assessment had a remarkable impact on raising students' learning interest and attainment (Hwang & Chang, 2011). The results of another research revealed the significant influence of formative evaluation in a Web-based learning environment. Statistical analyses of pre-and post-tests proved that formative assessment significantly affected students' performance, improving their learning outcomes (Wang et al., 2006). Accordingly, the effective implementation of formative assessment tools can help build a learner-centered classroom and facilitate learning (Gikandi, Morrow & Davis, 2011). Altogether assessment for learning is a crucial factor affecting student achievement in an online environment (Lin & Lai, 2013).

## **2.7 Teachers' and Students' Perceptions about the Effectiveness of Online Formative Assessment**

The stakeholders' (teachers and students) level of understanding of formative assessment impacts the learning process and its overall effectiveness (Ogange, Agak, Okelo & Kiprotich, 2018; Sims, Dobbs, and Hand, 2002). Hence, it is equally essential to know both teachers' and students' perceptions of formative assessment and to what extent their beliefs determine learning outcomes.

Teachers' perceptions and understandings of formative assessment are of the same importance as implementing different assessment tools during their teaching (Fox, 2009). According to various researchers, the way instructors perceive assessment may impact how they teach and assess their students (Stiggins, 2007; Fennema & Romberg, 1999). Nevertheless, the findings of the research conducted by Freeman (1993) revealed that teacher education could have a significant impact on what teachers perceive about formative assessment and how they implement those techniques in the classroom. Hence, teachers need to have a thorough understanding of assessment for learning to serve its intended purpose (Stiggins, 2007).

Sometimes teachers' perceptions might not be in the same line with their practices in classroom assessment. The study results suggest that even though teachers mostly have positive formative assessment perceptions, they encounter obstacles to implement the formative assessment tools effectively in the classroom (Buyukkarci, 2014; Ndalichako, 2015). Another research revealed that although teachers have an overall positive attitude toward learning and formative feedback, this technique is still not used by instructors regularly (Danielson, 2008).

Teachers' perceptions about students and their role in the learning and teaching process are of great significance. As Black and Wiliam (1998) claim, teachers' perceptions of learning and their students' possibilities to learn can significantly affect the extent to which

they can move toward adopting more formative assessment rather than relying on summative assessment tools. The premise is that if instructors believe that learning, for the most part, takes place through knowledge transmitted by instructors, they may be more likely to use summative assessment tools to verify whether that knowledge has been acquired.

Furthermore, if instructors perceive that students' learning and comprehension can be improved, they are more likely to engage students in the formative assessment such as self-and peer assessments and provide them with feedback to enhance their learning (Lee & Wallace, 2018; Song & Koh, 2010).

Investigating students' perceptions of online formative assessment is vital for instructors, since understanding what techniques students consider the most useful and prefer to use in an online environment is a crucial factor of effective teaching and learning (Blair & Valdez Noel; 2014; Ogange et al., 2018).

The findings of an experimental study conducted with 72 adult respondents taking an online course suggest that students perceive various types of formative assessment techniques such as online quizzes, self, and peer assessment, reflections, essays, and offline assignments as effective to be applied in online settings (Ogange et al., 2018). In addition, the results of the same study also highlighted the importance of using computer-based technologies for providing immediate and meaningful feedback after students complete the task.

According to another experimental research administrated with 160 intermediate EFL learners using an e-portfolio assessment platform, students have a merely positive attitude towards online formative assessment, as it provides students with the opportunity to engage in the learning process, collaborate, and share their ideas with peers thus fostering student performance (Namaziandost et al., 2020).

In their study, Tang & Harrison (2011) investigated 50 online EFL instructors' perceptions toward formative assessment and feedback. The study results showed that providing feedback was of great significance in online settings since there was a lack of communication between instructor and students; thus, instructor feedback might be the only reliable source for students to ensure their work quality, specifically in EFL/ESL context. According to Gikandi, Morrow & Davis (2011), students find use being provided with immediate feedback through computer-based technologies as highly effective. On the contrary, students consider the feedback received from both instructors and peers through face-to-face settings as less effective.

The effectiveness of formative assessment and its positive impact on Armenian EFL students' achievement has been examined by different authors. These studies mostly paid attention to implementing various formative assessment tools to enhance students' performance in face-to-face classrooms (Hovhannisyan, 2018; Hovsepyan, 2013; Torosyan, 2011). However, no research has been found looking at the effectiveness of formative assessment tools in online settings in the Armenian EFL context. Therefore, this study aims to fill the gap by analyzing students' and teachers' perceptions of the effectiveness of online formative assessment techniques and the extent to which the implementation of those tools enhances student performance.

## **CHAPTER THREE: METHODOLOGY**

### **3.1 Research Design**

To investigate the effects of online formative assessment on EFL learners' performance and teacher's as well as students' perceptions of its effectiveness, action research with the quasi-experimental design was applied. A quasi-experimental study was conducted with two EFL classrooms to have a clear understanding of whether online formative assessment impacts the students' performance. One of the classes was the treatment group (the group that received the treatment) and the other - comparison group (the group that did not receive the treatment). Furthermore, to reveal participants' (students and their teacher) perceptions of the effectiveness of online formative assessment, the research employed a mixed-method approach integrating both qualitative (interview) and quantitative (questionnaires) methods for data collection (QUAN+QUAL). The weight of each strand was equally significant in addressing the research questions.

### **3.2 Educational Context and Participants**

The research was carried at an after school English program in Yerevan. The after school English program classes are organized for different proficiency level students aged 6-16 and aim to provide them with the possibility to learn English through communicative teaching methods. Each class consists of students of the same level. One term of the course lasts ten weeks. Classes are conducted twice a week; the duration of each session is an hour. At the end of the term, students take a final test to substantiate their achievements.

The participants of this study were 23 high-elementary level students studying at the after school English program mentioned above and their teacher selected through a homogenous purposive sampling (members of the sample have a shared set of



characteristics). Eleven students were involved in the treatment group, and twelve students in the comparison group. The other participant of the study (the teacher) was in charge of both groups. Students' ages ranged from 13 to 17. The groups consist of both males and females. Most of the students have been exposed to English for at least five years. All of them are studying at Armenian schools, and their first language is Armenian. Due to the Covid19 pandemic, the after school English program classes were held online, two one-hour sessions each week.

The textbook used for high elementary level classes was “English in Mind Second edition” (Puchta & Stranks, 2011). The textbook covers all four language skills (reading, listening, writing, and speaking) and vocabulary and grammar. It should be noted that both treatment and comparison groups were taught by the same book.

### **3.3 Ethical Considerations**

Ethical considerations are an inseparable part of the research. The following most essential principles have been implemented before and throughout all the study process. An IRB (Institutional Review Board) certification ensured that the researcher met human subjects protection requirements and was liable to conduct research.

Before starting the research, approval was received from the director of the program. Afterward, there was a discussion between the researcher and the participants where the researcher provided detailed information about the research and obtained oral informed consent. The latter was acquired before the participants (the students and the teacher) entered the research. The voluntary participation of the participants was the primary issue. They had the right to withdraw from the research at any stage.

The identity of participants was kept confidential. The survey was anonymous, and the students were not required to write their names in the survey. Further, the teacher interview was conducted via Zoom, and the teacher agreed to be recorded. The name of the after school English program and the instructor were also kept confidential.

The data obtained during the research were analyzed and interpreted with a high level of objectivity and accuracy.

### **3.4 Instruments**

To answer the first research question, which aims to find out to what extent the implementation of formative assessment strategies improves EFL students' performance in online settings, the quantitative data were collected through pre-and post-tests. To reveal the answer to the second question, which seeks to find out the students' and the teacher's perceptions of the effectiveness of online formative assessment tools, the qualitative data were collected through the teacher interview and survey with students.

All the instruments were administered in English except the questionnaires. Considering that students might experience difficulties in comprehending some notions of specific terminology, the questionnaires were translated into Armenian. All the instruments were designed to fit in with online settings. Before the administration, the interview questions and the questionnaires were addressed, taking the context into consideration by the thesis adviser, and relevant changes were made.

#### **3.4.1 Pre-test and Post-test**

The students of both treatment and comparison groups took pre and post-study tests.

The pre-test (see Appendix A) was developed parallel to their previous level achievement test and aimed to test students reading, listening, writing skills, and grammar

and vocabulary competence. The pre-test consists of four sections: Reading Section, Listening Section, Language Use, and Writing Section. The participants had 60 minutes to complete the test. Overall there were 25 students in both treatment and comparison groups (12 and 13 students in each group, respectively); however, only 11 students from the treatment group and 12 students from the comparison group were involved in the pre-test. Though the two students, later on, took the post-study test, their responses were not considered. There was a slight attrition in the number of participants.

The decision was made to use students' final achievement test to pass to the next level as a post-test (see Appendix B). The post-test included the same sections as the pre-test and tested both receptive and productive skills as well as grammar and vocabulary mastery. All the students from the treatment and comparison groups took the post-test.

As the classes were online, both pre- and post-tests were adopted to fit with online settings. Initially, both tests were developed as a word document. Afterward, the tests were transformed into interactive worksheets via the platform named [www.liveworksheets.com](http://www.liveworksheets.com). The website allows teachers to transform their printable worksheets (doc, pdf) into online interactive ones with self-correction. The option of self-correction can be regulated by the instructor. Students do the test online and send their responses to the teacher. The platform is beneficial for both students (motivating and engaging) and teachers (time-saving). Besides, the interactive worksheets make the best use of innovative technologies applied to education, including audio, videos, various exercises, and others.

The pre-and post-tests were administrated to reveal whether the implementation of online formative assessment techniques impacted students' performance.

### **3.4.2 Survey**

At the end of the study, the treatment group students completed the Likert scale survey (see Appendix C) to reveal students' perceptions of the effectiveness of different

formative assessment techniques implemented during the treatment. The comparison group students did not complete the survey, as they were not exposed to online formative assessment tools.

The questionnaires were anonymous and developed in English and Armenian, considering that students might have difficulties related to different concepts. The survey was designed via Google Forms and administrated online. It included 12 close-ended questions in Likert scale format (from Strongly disagree to Strongly Agree).

### **3.4.3 Interview**

The aim of the interview (see Appendix D) was to determine the teacher's perceptions of the online formative assessment's effectiveness. The latter was conducted with the teacher at the end of the research via Zoom. The interview was administrated in English and audiotaped, as the teacher did not mind.

The interview was semi-structured (several questions were predetermined, while the rest of the questions were not planned beforehand): the intention was to encourage the participant to express their experience, understandings, and perceptions freely. Data triangulation was implemented to develop reliable evidence: the information on the same questions was obtained from different sources and perspectives. To be more precise, the same questions were included both in the survey and the teacher interview, and the acquired data were analyzed and compared. Besides, additional evidence was gathered through the classroom observation during the treatment procedure.

### **3.4.4 Classroom Observations**

Classroom observations are an inseparable part of the research, which provide valid information about the teaching and learning process. With the teacher's consent, both treatment and comparison groups were observed (two times each) before starting the

treatment. The observations applied prior to the treatment helped the researcher to identify what kind of formative assessment techniques were being implemented by the instructor. During the research, both the treatment and comparison groups were observed. During the observations of the treatment group (overall 15 observations), detailed notes were taken of the nature of different formative assessment tools that were being implemented. The gathered information helped to understand whether implemented techniques worked well or not. The data was collected using classroom observation forms (see Appendix E). Moreover, the observations (overall six) were conducted with the comparison group to follow the teaching process. The researcher came to an agreement with the instructor that she (the instructor) would not use the assessment techniques employed by the researcher.

### **3.5 Treatment Procedure**

Both treatment and comparison groups used the same textbook, and the course duration was the same. The research lasted for ten weeks.

Before starting the treatment, both groups were observed three times each. Afterward, the online formative assessment tools were developed to be implemented with the treatment group. Formative assessment techniques designed for online settings were applied throughout the course.

#### **3.5.1 Exit Ticket**

After each class, students had the opportunity to reflect on what they had learned during the class and what questions they still had. For that reason, interactive exit tickets (see Appendix F) were developed via Google Forms. The researcher shared the link in the Zoom chat, and students completed the exit ticket at the end of the class. The data collected from

the exit tickets were shared with the teacher and helped the teacher identify students' strengths and weaknesses. An example of an exit ticket is presented below (see Figure 1).

### Figure 1

*Exit ticket*

Things I have learned today..... <i>I have learned what teenagers are allowed to do in Armenia. Some new words and phrases that I can use later.</i>
Things I found interesting..... <i>It was interesting to know that in the UK you can give a bank account at the age of seven or that in Brazil you are allowed to vote when you are 16 years old.</i>
A question I still have..... <i>What does it mean? No wonder</i>

### 3.5.2 Short and Frequent Quizzes

As short and regular quizzes are considered effective techniques for reviewing the old content and reinforcing the new one, online quizzes were developed and implemented once a week based on the students' materials. For creating online quizzes, the platform called Quizzes ([www.quizzes.com](http://www.quizzes.com)) was chosen for several reasons. First, it was fun and engaging; second, students could join from any device, third all answers were saved and could be accessed any time by sending the results to students or their parents (see Appendix G).

### 3.5.3 Self-Assessment Checklist

Self-assessment is one of the most influential and practical formative assessment techniques that allow students to identify their strengths and areas they are struggling with.

For that purpose self-assessment checklist (see Appendix H) was developed via Google forms and implemented. The data from the self-assessment checklists were collected and provided to the teacher.

### 3.5.4 Peer-Assessment Slips

As could be concluded from the literature review, online environment and technologies provide better opportunities for practical peer assessment. Hence, peer-assessment slips (see Appendix I) were designed via Google Forms that were applied to give peer feedback after students' presentations. The peer-assessment slips were anonymous, which allowed students to give productive feedback. The feedback was later shared with the teacher and the students individually. An example of peer feedback is represented in Figure 2.

**Figure 2**

*Peer-Assessment Slips*

Feedback for..... . <i>Aram's presentation</i>
I like how you ..... . how you were explaining every new word you said. Very informative and nice presentation.
Next time try to ..... . In general it was good. Try to be free and share your own thoughts too.

None of those mentioned above techniques were implemented in the comparison group. All the techniques used during the research were applied considering both the teacher's and students' workload not to overwhelm them with extra assignments.

### 3.6 Data Collection

The data collection lasted about two months. Prior to the research, both treatment and comparison groups were observed several times. These observations aimed at identifying what the teacher implemented techniques and methods during the classes.

The process of quantitative data collection started with the pre-test during their second class. The test was developed based on the materials covered by the students during their previous course and adopted to online settings. The same test was administrated to both groups (treatment and comparison) via Zoom.

The post-test was administrated at the end of the course. Both treatment and comparison group students took the test. As a post-test, it was decided to use students' final achievement test. However, the format of the test was changed to an online interactive worksheet as with the pre-test.

In the study's follow-up phase, the qualitative data was collected through the teacher interview and student survey, which were administrated at the end of the research. The semi-structured interview was employed to investigate the teacher's perceptions of the effectiveness of the online formative assessment. Finally, the student survey was conducted with treatment group students to reveal their online formative assessment efficacy perceptions.

### **3.7 Data Analyses**

As it was already mentioned, this was action research with a quasi-experimental design. The researcher employed a mixed-method approach incorporating both qualitative and quantitative research components. Data triangulation (the data collected from different sources) was applied to ensure the research results' validity and reliability.



The quantitative data obtained from both treatment and comparison groups through pre-test and post-test were analyzed and summarized via a graphical statistical software package named JASP( Jefferies's Amazing Statistics Program). The t-test analyses were conducted to determine whether there was a significant difference in the results to state that implemented online assessment tools positively affected students' performance.

The qualitative data obtained through the students' survey included twelve Likert scale items aiming to determine the level of respondents' agreement with the statement. The data obtained from the Google form were converted into an Excel sheet for further analyses. The results were calculated and analyzed descriptively to provide the percentage of the participants who responded to the questions.

The qualitative data gathered through the teacher interview were analyzed inductively: the teacher interview were transcribed, coded, and categorized into themes. Furthermore, the data was presented cohesively. The interview was semi-structured and included mainly open-ended questions.

## CHAPTER FOUR: RESULTS

This study was accomplished to determine the extent to which online formative assessment techniques improve EFL students' performance. Of the same importance for the study was identifying both the students' and their instructor's perspectives on the online formative assessment's effectiveness. The study employed a mixed-method approach: both quantitative and qualitative data were collected and analyzed. For quantitative data collection, pre-and post-tests were applied with treatment and comparison groups. The qualitative data were collected through a questionnaire and teacher interview. The chapter presents the results of the data analyzed both quantitatively and qualitatively and sought to answer the following questions:

To what extent does the implementation of formative assessment strategies improve

EFL students' performance in an online setting?

What are the students' and the teacher's perceptions of the effectiveness of online formative assessment tools?

### **4.1 Research Question 1: To what extent does the implementation of formative assessment strategies improve EFL students' performance in an online setting?**

To answer the first research question, the pre-and post-tests with the treatment and comparison groups were conducted. The purpose was to determine which group performed better. The paired sample *t*-test was applied to compare the pre- and post-tests results within the same group; additionally, the independent sample *t*-test was employed to make a comparison between the treatment and comparison groups.

#### **4.1.1 Within Group Comparison**

With the purpose to compare the pre-test results with the post-test scores in comparison and treatment groups, a parametric paired *t*-test was employed. The latter aimed

at determining whether there had been any significant differences in the performances of each group. According to Table 5, the mean of the pre-test scores of the treatment group is 31.72, while that of post-test scores is 36.27, which means that the students had higher scores during the post-test than they did during the pre-test. Moreover, it can be implied from the standard deviations (SD) that the scores are similarly dispersed in both conditions.

**Table 5**

*Descriptive Statistics*

	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>
Pre-TS	11	33.727	3.771	1.137
Post-TS	11	36.273	3.690	1.113

**Table 6**

*Paired Sample T-Test for within Group Comparison for the Treatment Group*

<b>Measure 1</b>	<b>Measure 2</b>	<b>t</b>	<b>df</b>	<b>p</b>	<b>Cohen's d</b>
Pre-TS	- Post-TS	2.276	10	0.036	0.686

Table 6 represents the results of the paired sample *t*-test applied within the treatment group. The results acquired from the paired sample *t*-test showed a statistically significant difference between the pre-test (M=33.72, SD=3.77) and post-test (M=35.27, SD=3.69) scores of the treatment group;  $t(10) = 2.27, p = .036$ . To be more precise, the *t*-value is the *t*-test statistic which indicates the differences between the scores of two experimental conditions. The larger the *t*-value, the more noticeable is the difference between the two

conditions. In this case, the  $t$ -value is 2.27, so it can be implied that there is a slight chance that these results occurred by chance. Another critical value directly influencing the  $t$ -value is degrees of freedom (df). In paired sample  $t$ -test, df is usually one less than the number of participants (in this case,  $df=10$ , as the number of participants is 11). Finally, to state that there is a significant difference between the pre-and post-test results of the treatment group, the  $p$ -value should be smaller or equal to .05. As Table 6 shows, the  $p$ -value is .036, which is smaller than the specified  $p$ -value. Consequently, there is a significant difference between the pre-and post-test results of the treatment group.

The statistical significance ( $p$ -value) examines whether the probability of the experimental findings is essential to be reported in the research; however, they will not reveal the magnitude of the experimental treatment (Rhea, 2004). Calculating the effect size allows the researcher to determine the magnitude of differences that occurred, rather than just reporting that the effect exists (Sullivan & Feinn, 2012). According to Thalheimer & Cook (2002), Cohen's  $d$  has the advantage over the other effect-size measurements, as it provides the researcher the opportunity to compare the effect size of an experiment with the investigated standards of effect size (small effect-  $\leq 0.2$ , medium effect-  $\leq 0.5$ , large effect-  $> 0.5$  (Cohen's (1988)).

For the results to be more valid, the effect size for the treatment group was calculated. According to Table 6, the effect size for paired sample  $t$ -test for the treatment group is equal to 0.686 (Cohen's  $d= 0.686$ ). Considering the effect size suggested by Cohen (1988), it can be implied that there is a large effect between the pre-and post-test results of the treatment group.

The same statistical analyses were taken to compare the pre-and post-test scores of the comparison group. As reported in Table 7, there was no improvement in the means of pre ( $M=33.91$ ) and post-test scores ( $M=33.25$ ) within the comparison group.

**Table 7***Descriptives Statistics*

	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>
Pre-TS	12	33.917	4.641	1.340
Post-TS	12	33.250	5.029	1.452

Furthermore, the results of the paired sample t-test revealed that there is no statistically significant difference between the pre and post-test results of the comparison group;  $t(11)=0.79$ ,  $p=.44$ . According to Table 8, the t-value is equal to 0.79 ( $t=0.79$ ), which lessens the level of probability that the results occurred by chance. Moreover, the  $p$ -value ( $p=.44$ ) is not less than 0.05 ( $p$ -value should be  $\leq .05$  to claim that there is a statistical difference), so it can be stated that there is no significant difference between the pre-and post-test results of the comparison group.

Table 8

*Paired Sample t-test for within-group comparison for the comparison group*

<b>Measure 1</b>	<b>Measure 2</b>	<b>t</b>	<b>df</b>	<b>p</b>	<b>Cohen's d</b>
Pre-TS	- Post-TS	0.796	11	0.443	0.2

As with the treatment group, the effect size of the comparison group has also been calculated. Cohen's  $d$  (the effect size) for the comparison group is equal to 0.23( $d=0.23$ ), which according to Cohen's (1998) guideline size (small effect-  $<0.2$ , medium effect-  $<0.5$ ,

large effect- >0.5) can be interpreted as there is a small effect size between the pre-and post-test of the comparison group.

To conclude, the paired sample t-test analyses revealed that as a result of treatment, the experimental group showed better results during the post-test than they did during the pre-test. Simultaneously, the same analyses with the comparison group revealed no significant difference between the pre-and post-test scores.

#### 4.1.2 Between Group Comparison

To find out whether the implementation of online formative assessment techniques affects students' performance, the independent sample t-test was employed. An independent sample t-test was used to compare both treatment and comparison groups' performance during the pre and post-tests. To determine the difference between the treatment and comparison groups, the means of pre-test of both groups were estimated. In the descriptive statistics illustrated in Table 9, the comparison group's mean is 33.81, while that of the treatment group is 33.72. Furthermore, the results obtained from the independent sample t-test did not show a statistically significant difference ( $p=.961$ ) between the pre-tests of both groups, as shown in Table 10.

**Table 9**

*Group Descriptives*

	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>
Scores	Comparison Group	12	33.818	4.834	1.457
	Treatment group	11	33.727	3.771	1.137

**Table 10**

*Independent Samples T-Test for the Between Group Comparison for the Pre-test*

	<b>95% CI for Cohen's d</b>

	<b>t</b>	<b>df</b>	<b>p</b>	<b>Cohen's d</b>	<b>Lower</b>	<b>Upper</b>
Scores	0.049	20	0.961	0.021	-0.815	0.856

The results provided by the statistical analyses were quite natural since both the treatment and comparison groups were of the same level and followed the same curriculum. Consequently, it can be stated that there is no significant difference between the averages of scores of pre-tests of both groups by value which falls between -0.815 and 0.856 with a 95% confidence interval for Cohen's d.

The same procedure was applied for the post-test of the treatment and comparison groups. Table 11 demonstrates the descriptive statistics of the comparison and treatment groups. The average score of the post-test of the comparison group is 33.25, while that of the treatment group is 36.27.

**Table 11**

*Group Descriptives*

	<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>SE</b>
Scores	Comparison Group	12	33.250	5.096	1.471
	Treatment group	11	36.273	2.284	0.689

**Table 12**

*Independent Samples T-Test for the between Group Comparison for the Post-test*

	<b>t</b>	<b>df</b>	<b>p</b>	<b>Cohen's d</b>	<b>95% CI for Cohen's d</b>	
					<b>Lower</b>	<b>Upper</b>
Scores	-2.452	21	0.023	-1.024	-1.887	-0.139

The statistical comparison of the post-test scores of the treatment and comparison groups illustrated in Table 12 revealed that the p-value is .023( $p=.023$ ). In order to state that there is a statistically significant difference between the post-test scores, the p-value should be  $\leq .05$ . Consequently, it can be stated that the difference between the post-test results of both groups was statistically significant ( $p \leq .05$ ). The results indicated that the treatment group students improved their performance due to the exposure to various formative assessment strategies.

#### **4.2 Research Question 2: What are the students' and the teacher's perceptions of the effectiveness of online formative assessment tools?**

To determine the students' and their teacher's perceptions of online formative assessment tools' effectiveness, the questionnaire with students and teacher interview were employed.

##### **4.2.1 Students' Questionnaire**

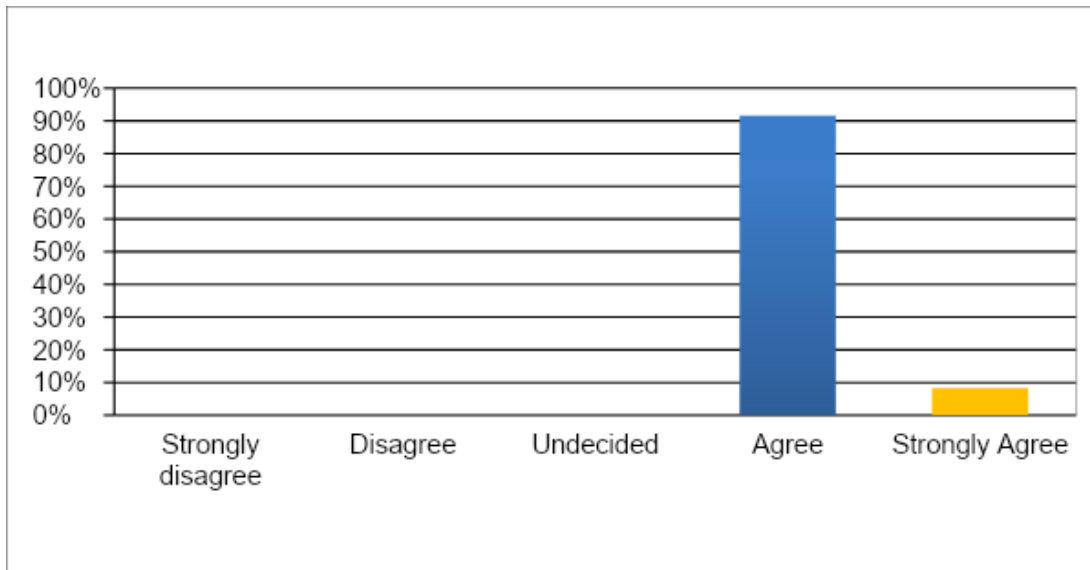
The qualitative data were obtained through a student questionnaire administered with the treatment group after the post-test. The questionnaire aimed to determine students' perceptions of the effectiveness of online formative assessment techniques.

As it was mentioned, the survey was designed both in Armenian and in English to ensure that students did not have any difficulties with understanding the questions and provided reliable answers. The 12 students out of 12 filled out the survey; thus response rate was 100 percent. Figure 3 represents the students' responses to online formative assessment tools (Appendix C, question 3).

#### **Figure 3**

*Students' Responses about the Effectiveness of Online Formative Assessment Techniques*



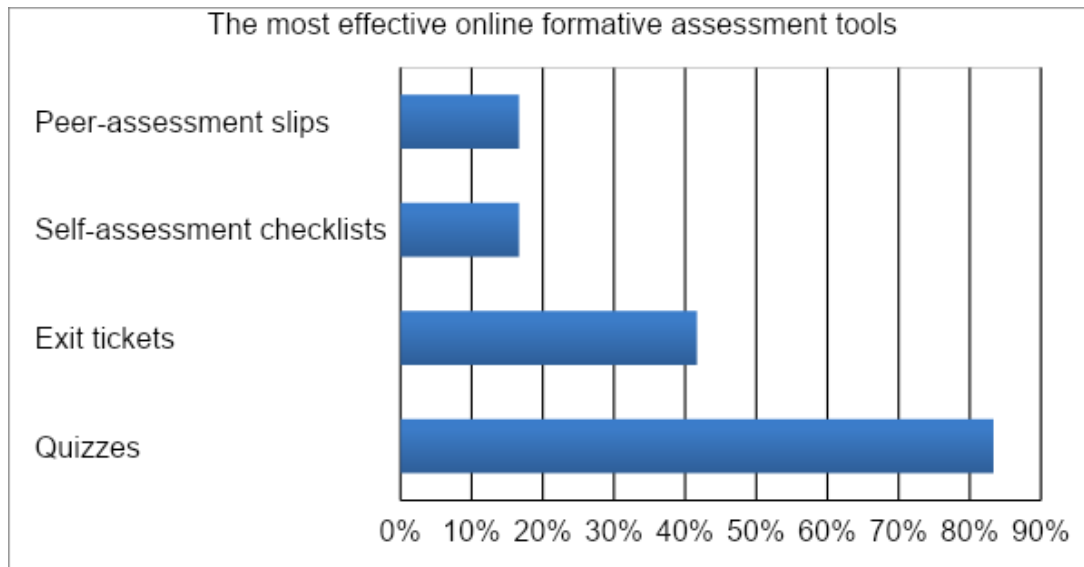


Based on the findings, it can be implied that the students consider online formative assessment techniques very practical. According to Figure 3, 92% (11 out of 12 respondents) of the participants agreed that online formative assessment tools were helpful for them, and one of the students (8%) strongly agreed with the statement. None of the students disagreed or was undecided with it. Moreover, 83% (10 out of 12 respondents) agreed that the online assessment techniques helped them to identify their weaknesses and concentrate on them (Appendix C, question 6).

Regarding the most effective online assessment tool implemented during the research, the research participants gave the following responses, represented in Figure 4. Students had an opportunity to choose more than one answer. Based on the findings depicted in Figure 4, it can be implied that 83% (10 out of 12 respondents) consider the short and frequent quizzes as the most effective online assessment tool. Furthermore, the exit tickets implemented during the treatment procedure were rated as the second most helpful technique (42% of respondents) for identifying students' strong and weak spots. Finally, Figure 4 shows that only 17 % (two out of 12 respondents) chose self-and peer-assessment checklists as the most effective techniques to be implemented during the online classes.

**Figure 4**

*Students' Responses on the Most Effective Online Formative Assessment Tool*



Besides, all the respondents strongly agreed or agreed (75% and 25%, respectively) with the statement (Appendix C, question 8) that periodic and short quizzes were beneficial for reviewing and reinforcing the new content. Short quizzes were administered during the treatment four times, and after each quiz, the feedback was shared with the students individually via e-mail. Moreover, 58% (seven out of 12 respondents) agreed that both exit tickets and self-assessment checklists were of great assistance for them to identify their strengths and weaknesses. Only 8% (one respondent) disagreed with the statement.

Finally, the students highlighted the importance of teacher feedback to be provided after each assignment or activity. Based on students' responses, it can be inferred that 50% (6 out of 12 respondents) strongly agree, and 42% (five out of 12 respondents) agreed that the teacher's feedback helped improve their learning and took it to another level. However, one participant disagreed with the statement (Appendix C, question 10).

To conclude, the questionnaire results revealed that most students have a positive attitude toward various online formative assessment tools implemented during their teaching and would like their teacher to continue implementing those techniques.

#### **4.2.2 Teacher Interview**

The interpretation of the teacher's interview revealed her perceptions of the effectiveness of online formative assessment tools. The teacher highlighted the importance of formative assessment, specifically in online settings where students lack real teacher-student interaction. Online platforms provide myriad opportunities for creating exciting assignments that motivate students to engage in the learning process. The teacher also mentioned that the online environment serves as a perfect platform for providing effective feedback.

As for the researcher's assessment tools' effectiveness during the treatment, the teacher points out that the exit tickets and self-assessment checklist helped spot what students did not understand well. Furthermore, the short and regular quizzes were fun, engaging, and helpful in revising and memorizing specific vocabulary or grammar points. On the contrary, the teacher was uncertain of the effectiveness of peer-assessment tools and mentioned that students' characteristics and experience need to be taken into account before applying peer-assessment tools.

Altogether, the teacher noted that online formative assessment techniques positively impacted students' performance; however, it was necessary to consider students' interests and motivation before designing and implementing those tools.

## CHAPTER FIVE: DISCUSSION AND CONCLUSION

This chapter summarizes the research findings, discusses the pedagogical implications, and provides some direction for further research.

### 5.1 Summary of the Research Findings

The research findings are summarized in accordance with research questions:

1. *To what extent does the implementation of formative assessment strategies improve EFL students' performance in an online setting?*

The research results indicate that the implementation of online formative assessment techniques positively impacted students' performance. The quantitative data analyses revealed that there was a significant development in students' performance in the treatment group. Moreover, the research results showed a significant difference between the post-test scores of the treatment and comparison groups, which might occur due to the treatment procedure the experimental group students were exposed to. These findings are in line with the findings of Wang et al. (2006), who conducted similar research aiming to explore the effects of formative assessment on students' achievements in online settings. Therefore, it can be stated that the implementation of online formative assessment techniques can foster student motivation and engagement in the learning process, thus improving students' performance (Cohen and Sasson, 2016).

Moreover, the statistical analyses within the group comparison of the current study revealed that the use of formative assessment techniques caused a large effect size between the pre and post-test results of the treatment group. Thus, it can be implied that the different formative techniques integrated into the teaching and learning process positively affected student's achievements. The latter aligns with the findings of Gikandi, Morrow & Davis (2011) and Cohen and Sasson (2016), according to which regularly implemented assessment

techniques and interactive formative feedback were identified as vital aspects of effective formative assessment in online and blended contexts.

*2. What are the students' and the teacher's perceptions of the effectiveness of online formative assessment tools?*

The findings derived from the qualitative data (student questionnaire and teacher interview) revealed that both the students and their teacher had a solely positive attitude towards the online formative evaluation techniques. The majority of the students either agreed or strongly agreed with the statements about the effectiveness of online formative assessment tools applied during the research. In that respect, the findings of the current research are consistent with the recent studies that revealed students' positive attitude towards the effectiveness of online formative assessment tools (Blair & Valdez Noel, 2014; Ogange et al., 2018).

Furthermore, the survey analysis showed that students perceived short and frequent quizzes and self-reflection (exit tickets) as the most productive means of assessment for learning. Moreover, most of the students (92%) strongly agreed or agreed that the instructor's feedback helped them to improve their learning. These findings are in line with the research findings conducted by Ogange et al. (2018). Though the students' attitude toward online quizzes, self, and peer assessment reflections was solely positive, they highlighted the importance of getting teacher feedback after each assignment (Ogange et al., 2018).

The treatment group students of this study showed a positive attitude towards the peer assessment, though the percentage of students considering peer-assessment as an effective formative assessment tool was small (8%). These findings contradict the claims of Namaziandost et al. (2020) on the effectiveness of peer assessment in online settings.

Additionally, the teacher interview results of the current study showed that the teacher had a positive attitude towards online formative assessment and the techniques being

implemented during the research. The teacher stated that online settings provide better opportunities for effective formative evaluation, specifically for creating varied, engaging assessment tools and providing effective feedback. Teachers' perceptions regarding online formative assessment and feedback are in alignment with the findings of Spector et al. (2016).

Regarding the effectiveness of various assessment techniques implemented during this study, the teacher noted that all the tools had a positive impact on students' performance: still, students' motivation and interests need to be taken into account before implementing those techniques. Specifically, the teacher highlighted the importance of formative feedback to be provided during and after different activities, as it helps students to identify their strengths and weaknesses. These findings are in consonance with the findings of Tang and Harrison (2011), according to which the implantation of formative evaluation and providing feedback is significantly crucial in the online milieu where students lack personal communication with the teacher.

## **5.2 Pedagogical Implications**

The following implications may be addressed as a result of the research treatment procedure and challenges encountered by the researcher.

First of all, it is recommended to equip students with knowledge about the purpose of peer assessment and its techniques before it will be implemented. By devoting some time to explaining the peer-assessment process, teachers are likely to engage students in the process of assessment in a more meaningful way. It is also recommended to thoroughly consider students' motivation, experience, confidence, and other factors prior to implementing self and peer assessment tools to avoid biased answers and reach desired outcomes.

Another suggestion for teachers is to make use of different platforms for creating online assessment tools. Even the most interesting and engaging activities become boring when they are implemented for several times. Online milieu provides numerous opportunities for creating interesting and informative tools for a practical assessment.

### **5.3 Limitations and Delimitations**

The study had several limitations and delimitations.

One of the study's limitations was the conditions of pre-and post-test administration. The tests were administered via Zoom, and even though the students were asked to switch on their cameras, some did not. Hence, it was challenging to monitor the test-taking process and assure that students did not use external sources. Another limitation was the duration of the study. The results would have been more reliable if the researcher could implement those tools for an extended period. Finally, both the students and the teacher might provide biased answers while filling in the survey or responding to interview questions.

The delimitations of the study were as follows: the educational context and classroom settings as well as the students' proficiency level. Finding the proper sample was the fundament of successful research. The after school English program was chosen for the following reasons: the classes were online, and the instructors were familiar with formative assessment techniques. Moreover, having the students of the same proficiency level revealed more valid evidence of whether the improvement of students' achievements due to the implemented techniques.

### **5.4 Recommendations for Further Research**

Taking into account the importance of formative assessment in ESL/EFL teaching and learning and the fact that different educational institutions in Armenia are steadily increasing

the use of online classes, there is a need to investigate the challenges instructors and students might face related to the online delivery mode of those tools. Considering one of the limitations of this study (the duration of the research), it would be more effective to conduct longitudinal research to ensure the validity and reliability of the results. The researcher will have more time for regular implementation of various assessment tools. Besides, it will be interesting to carry out similar research with different level students (beginner, intermediate, advanced) and determine whether the same tools impact students' performance correspondingly. Finally, it would be informative to conduct a similar study in public schools where students have no exposure to formative assessment techniques and include large samples from different schools to make the results more generalizable.

## **5.5 Conclusion**

The study results revealed that the implementation of formative assessment techniques enhances students' motivation and engagement, thus positively influencing students' performance. Moreover, the findings suggest that the online milieu and technologies provide a number of opportunities for effective online assessment. Finally, both students and their teacher perceive online formative assessment techniques as very helpful and effective to be implemented during the teaching and learning.



## References

- Al-Shara'H, N. D. (2013). An Investigation of Jordanian EFL Teachers' Procedures of Achievement Test Construction. *Education, 133*(4), 422–430.
- Altman, P., Fleming, P. B., & Heyburn, S. L. (2010). Understanding and Using Formative Assessments: A Mixed Methods Study of "Assessment for Learning" Adoption.
- Anderson, T. (2004). Teaching in an online learning context. *Theory and Practice of Online Learning, 273*.
- Anderson, T. (2008). Towards a theory of online learning In T. Anderson (Ed.) *The Theory and Practice of online learning* (pp 45-74). Edmonton, Canada.
- Bachman, L. (2004). *Statistical analysis for language assessment*. Cambridge: Cambridge University Press.
- Balasanyan, A. (2011). Implementation of formative assessment and its effect in an Armenian setting. Unpublished master's dissertation, American University of Armenia, Yerevan, Armenia.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes, 50*(2), 248-287.
- Beebe, R., Vonderwell, S., & Boboc, M. (2010). Emerging patterns in transferring assessment practices from F2F to online environments. *Electronic Journal of e-learning, 8*(1), 1-12.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7-74.
- Black, P., & Wiliam, D. (1998b). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan, 80*(2), 139-144.

- Bloom, B. S. (1971). Handbook on formative and summative evaluation of student learning.
- Brown, D. H. (2004). Language assessment: principles and classroom practices. New York: Pearson Education, Inc.
- Clark, I. (2012). Formative Assessment: Assessment Is for Self-regulated Learning. *Educational Psychology Review, 24*(2), 205-249.
- Cohen, D., & Sasson, I. (2016). Online quizzes in a virtual learning environment as a tool for formative assessment. *JOTSE, 6*(3), 188-208.
- Cook, B. R., & Babon, A. (2017). Active Learning through Online Quizzes: Better Learning and Less (Busy) Work. *Journal of Geography in Higher Education, 41*(1), 24–38
- Crooks, T. J. (2002). Educational assessment in New Zealand schools. *Assessment in Education: Principles, Policy & Practice, 9*(2), 237-253.
- Davies, P. (2000). Computerized peer assessment. *Innovations in education and training International, 37*(4), 346-355.
- Dixson, D. D., & Worrell, F. C. (2016). Formative and summative assessment in the classroom. *Theory in practice, 55*(2), 153-159.
- Edwards, J. G. H. (2013). Peer assessment in the classroom. *The companion to language assessment, 2*, 730-750.
- Fisher, D., & Frey, N. (2014). *Checking for understanding: Formative assessment techniques for your classroom*. ASCD.
- Garrison, D. R. (2011). *E-learning in the 21st century: A framework for research and practice*. Taylor & Francis.
- Garrison, C., & Ehringhaus, M. (2007). Formative and summative assessments in the

classroom.

Gattullo, F. (2000). Formative assessment in ELT primary (elementary) classrooms: an Italian case study. *Language Testing*, 17 (2), 278–288.

Ghorbani, M. R. (2017). Quizzes in Every Other Session Improve Undergraduate EFL Learners' Pronunciation Achievement. *Advances in Language and Literary Studies*, 8(5), 65–70.

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & education*, 57(4), 2333-2351.

Hansen, J. G., & Liu, J. (2005). Guiding principles for effective peer response. *ELT Journal*, 59(1), 31-38.

Harlen, W. & Crick, R.D. (2003) Testing and motivation for learning, assessment in Education, 10(2), 169-207.

Hatziapostolou, T., & Paraskakis, I. (2010). Enhancing the impact of formative feedback on student learning through an online feedback system. *Electronic Journal of E-learning*, 8(2), 111-122.

Hovhannisyan, A. (2018). The Impact of Formative Assessment on Student Achievement in a given Armenian High School. Unpublished master's dissertation, American University of Armenia, Yerevan, Armenia.

Hovsepyan, S. (2013). The Impact of Teacher Feedback vs. Student Self-assessment Using

- Rubrics on EFL Learners' Writing Enhancement. Unpublished master's dissertation, American University of Armenia, Yerevan, Armenia.
- Hwang, G. J., & Chang, H. F. (2011). A formative assessment-based mobile learning approach to improving the learning attitudes and achievements of students. *Computers & Education, 56*(4), 1023-1031.
- Ketabi, S., & Ketabi, S. (2014). Classroom and Formative Assessment in Second/Foreign Language Teaching and Learning. *Theory & Practice in Language Studies, 4*(2).
- Lee, G., & Wallace, A. (2018). Flipped learning in the English as a foreign language classroom: Outcomes and perceptions. *TESOL Quarterly, 52*(1), 62–84.
- Liang, X., & Creasy, K. (2004). Classroom assessment in web-based instructional environment: Instructors' experience. *Practical Assessment, Research, and Evaluation, 9*(1), 7.
- McManus, S. M. (2008). A study of formative assessment and high stakes testing: Issues of student efficacy and teacher views in the mathematics classroom.
- Milne, C. (2014). Chapter 10: Self-Assessment and Assessment for/as Learning. *Counterpoints, 380*, 145-148.
- Nakos, G., & Whiting, A. (2018). The Role of Frequent Short Exams in Improving Student Performance in Hybrid Global Business Classes. *Journal of Education for Business, 93*(2), 51–57.
- Namaziandost, E., Alekasir, S., Hassan Mohammed Sawalmeh, M., & Miftah, M. Z. (2020). Investigating the Iranian EFL learners' attitudes towards the implementation of e-portfolios in English learning and assessment. *Cogent Education, 7*(1), 1856764.
- Ogange, B., Agak, J., Okelo, K., & Kiprotich, P. (2018). Student perceptions of the

- effectiveness of formative assessment in an online learning environment. *Open Praxis*, 10(1), 29-39.
- Oscarson, M. (2013). Self-assessment in the classroom. The companion to language assessment, 2, 712-729.
- Peng, J. C. F. (2009). *Peer assessment of oral presentation in an EFL context*. Indiana University.
- Popham, W. J. (2008). *Transformative assessment*. Alexandria, VA: Association for Supervision and Curriculum Development
- Puchta, H., & Stranks, J. (2011). *American English in Mind Level 4 Student's Book with DVD-ROM*. Cambridge University Press.
- Ruland, Joshua William. (2011). "The Impact of Using Formative Assessment Attributes in Daily Instruction on Student Affect" Dissertations. Paper 44.
- Shute, V. J. (2008). Focus on formative feedback. *Review of educational research*, 78(1), 153-189.
- Spector, J. M., Ifenthaler, D., Sampson, D., Yang, J. L., Mukama, E., Warusavitarana, A., ... & Gibson, D. C. (2016). *Technology enhanced formative assessment for 21st century learning*.
- Stiggins, R. (2009). *Assessment FOR Learning in Upper Elementary Grades*. Phi Delta Kappan, 90(6), 419–421.
- Scriven, M. (1967). The methodology of evaluation (AERA Monograph series on curriculum evaluation, No. 1). *New York: Rand Mc Nally*.

- Stiggins, R. (2005). From Formative Assessment to Assessment for Learning: A Path to Success in Standards-Based Schools. *Phi Delta Kappan*, 87(4), 324–328.
- Stödberg, U. (2012). A research review of e-assessment. *Assessment & Evaluation in Higher Education*, 37(5), 591-604.
- Stull, J., Varnum, S. J., Ducette, J., & Schiller, J. (2011). The many faces of formative assessment. *International Journal of Teaching and Learning in Higher Education*, 23(1), 30-39.
- Tang, J., & Harrison, C. (2011). Investigating university tutor perceptions of assessment feedback: three types of tutor beliefs. *Assessment & Evaluation in Higher Education*, 36(5), 583-604.
- Torosyan, S. (2011). The Impact of Formative Assessment on EFL Learners' Vocabulary Enhancement. Unpublished master's dissertation, American University of Armenia, Yerevan, Armenia.
- Tsai, C. C. (2009). Internet-based peer assessment in high school settings. In *Handbook of research on new media literacy at the K-12 Level: Issues and challenges* (pp. 743-754).
- Vonderwell, S., Liang, X., & Alderman, K. (2007). Asynchronous discussions and assessment in online learning. *Journal of Research on Technology in Education*, 39(3), 309-328.
- Vonderwell, S. K., & Boboc, M. (2013). Promoting formative assessment in online teaching and learning. *TechTrends*, 57(4), 22-27.
- Wang, K. H., Wang, T. H., Wang, W. L., & Huang, S. C. (2006). Learning styles and formative assessment strategy: enhancing student achievement in Web-based learning. *Journal of computer assisted learning*, 22(3), 207-217.
- William, D. (2006). Formative assessment: Getting the focus right. *Educational*

*assessment*, 11(3-4), 283-289.

William, D. (2011) *Embedded Formative Assessment*. Bloomington, IN: Solution Tree Press.

Williams, S. E. (1997). *Teachers' Written Comments and Students' Responses: A Socially Constructed Interaction*.

Yorke, M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. *Higher Education*, 45(4), 477-501.

Appendices

Appendix A

Pre-test

## American University of Armenia Experimental English Classes

Level: High elementary

Name:

Date:

Duration: 60 minutes

### Section 1 Listening Comprehension



Listen to Sam talk about his holiday. What did he do each day? (Note: There are more statements than options)

Audio:

[https://drive.google.com/open?id=1m2USY\\_L0Ve0Yd8oR3wZMe5U3mFp0JxaS](https://drive.google.com/open?id=1m2USY_L0Ve0Yd8oR3wZMe5U3mFp0JxaS)

Monday, Tuesday, Wednesday, Thursday, Friday

Went swimming \_\_\_\_\_

Read on the beach \_\_\_\_\_

Went shopping \_\_\_\_\_

Went for a long walk \_\_\_\_\_

Climbed a mountain \_\_\_\_\_

Returned home \_\_\_\_\_

Visited museums \_\_\_\_\_

Went canoeing \_\_\_\_\_

### Section 2 Reading Comprehension



### Read the text and complete the task.

Robin Hood was born near the end of the 12th century. His real name was Robert. He was the son of the Earl of Huntingdon. At that time, England had many problems. King Richard was away on a crusade in the Holy Land. He was away for many years. His brother, John, became king. He was a cruel and greedy king. His men were arrogant and brutal. The poor people of England suffered a lot. They paid very high taxes to King John and his sheriffs. Many families died of hunger! One day, the cruel Sheriff of Nottingham killed Robin's father and took away his lands. Young Robin lost his father, his home, his lands and all his possessions. He escaped to Sherwood Forest with his loyal servants. They decided to live as free men in the forest. They didn't want to be slaves of King John. However, the King considered them outlaws. When Robin and his men reached Sherwood Forest, they sat down to rest. Robin Hood smiled at his loyal servants. Then he said to them, 'My friends, Sherwood Forest is our new home. Now we are free but we are outlaws. Everyone in the kingdom is against us!'

*Retrieved from "Robin Hood" by Sally M. Stockton*

1. England had many problems because King John was away for many years.
2. King John's brother was King Richard, who was very cruel and greedy.
3. The Sheriff of Nottingham not only killed Robin's father but also got hold of his lands.
4. Robin and his father escaped to Sherwood Forest and lived as free men.
5. Some of the servants of king John helped Robin Hood to escape.
6. Robin called Sherwood Forest their new home.

### Section 3 Language Use



#### 3.1 Complete the sentences with the correct forms of the verbs.

1. I will pass (pass) the test if I work (work) hard.

2. Ann \_\_\_\_\_ ( not buy ) the plane ticket unless she \_\_\_\_\_ ( have) enough money.
3. If you \_\_\_\_\_ (freeze) water, it \_\_\_\_\_ (turn) to ice.
4. He \_\_\_\_\_ (lose) weight if he \_\_\_\_\_ (stop) eating so much.
5. We \_\_\_\_\_ (not understand) unless our teacher \_\_\_\_\_ (explain).
6. If you \_\_\_\_\_ (speak) very fast, they \_\_\_\_\_ ( not understand) you.



**3.2 Make the present perfect sentences.**

1. my brother / never / eat / snails.

My brother has never eaten snails.

2. our friends / not play / volleyball / yet.

\_\_\_\_\_

6. he / borrow / your pen?

\_\_\_\_\_

6. my father / already / read / the / book.

\_\_\_\_\_

1. I / not see / Julia / this morning.

\_\_\_\_\_

6. Mrs. Salwick / ever / write a book?

\_\_\_\_\_



**3.3 Complete the sentences with the verbs in the box.**

**Waste    clean up    recycle    drop    pick up    cut down    pollute**

- 1 Don't \_\_\_\_\_ the litter. Someone has to \_\_\_\_\_ it \_\_\_\_\_.
- 2 Water is so important. We mustn't just \_\_\_\_\_ it.
- 3 People \_\_\_\_\_ millions of acres of the world's forests every year.

- 4 Factory and power stations \_\_\_\_\_ the air and contribute to global warming.
- 5 Most big cities have schemes to \_\_\_\_\_ household rubbish these days.
- 6 Every year, people have to \_\_\_\_\_ thousands of tonnes of oil from the beaches.



**3.4 Complete the sentences with the comparative and the superlative form of the adjectives in brackets.**

- 1 Action films are more exciting ( exciting) than romantic films.
- 2 The blue whale is \_\_\_\_\_ ( big ) animal in the world.
- 3 Sorry, I don't understand. Can you speak \_\_\_\_\_ ( slow), please?
- 4 The exam was much \_\_\_\_\_ ( difficult) than I had last semester.
- 5 Dogs are \_\_\_\_\_ ( noisy) than cats.
- 6 John Brower Minnoch weighed 635 kg. He was \_\_\_\_\_ ( heavy) man in the world.



**3.5 Unscramble the words and match them.**

Aydr
ncvoaati
patramnt
veptmane
aregdn
tfla
estwes

apsnt
weskilda
rstruose
ncyad
dhaoliy

**British English**

**North American English**

0 Garden

yard

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

5 .....

.....



### 3.6 Unscramble the sentences and add a question tag from the box.

can't you?   aren't they?   ~~isn't she?~~   won't they?   doesn't he?   did you?

0 is / Ruth / happy / very

Ruth is very happy, isn't she?

1 didn't / last night / you / do / your homework

---

2 Arabic / can / you / well / speak

---

3 studies / Technology / Information / David.

---

4 to / Belgium / parents / going / are / your

---

5 the party / Martin / at / and / Sharon / be / will

---

#### Section 4 Writing

#### A Postcard from Greece



The following postcard letter describes Ani's holiday in a foreign country.

Dear Aram,

This vacation is wonderful. I arrived by ship on the island. The island is beautiful, and the weather is hot and sunny every day. I arrived on Saturday morning, and I went to Agios Sostis beach. I took a long swim, and then I sunbathed until noon. Next, I had lunch at a tavern on the beach. Also, I met some boys from Armenia, and we played volleyball with some of the local people. They are all very friendly.

In addition, I loved the hotel because it is fantastic, very modern, and it also has a pool. I liked the town. I walked around and took some photos. Then, I went to Delos to visit ancient ruins. Finally, I went shopping yesterday and I bought you a nice present.

I hope you like it. See you when I get home.

Love,  
Ani.



Mr. Aram Aramyan

Isahakyan street 29

Yerevan

Armenia



Imagine you are on holiday in a foreign country with. Write to your friend about what you did there, describe some places that you visited, what you liked or disliked about the place. Use Ani's letter as a model. Write 100-120 words. ☺

Good luck!!!

Total \_\_\_ /40

Pre-test link: <https://www.liveworksheets.com/1-zu1816197gm>

## American University of Armenia Experimental English Classes

Level: High elementary

Name:

Date:

Duration: 60 minutes

### Section 1 Listening Comprehension



**Listen to a radio program about robots. Are the sentences (T) true or (F) false?**

- 0 Robots only exist in science fiction. F
- 1 The first robot was designed by Leonardo da Vinci.
- 2 'Unimate' was used to move hot pieces of metal.
- 3 They are only used for cheap and safe activities.
- 4 Today robots are used for many different tasks.
- 5 In Japan, there are robots that help young people.
- 6 NASA is developing new space explorers.
- 7 Most people would be scared to have a robot in their home.
- 8 New robots can read newspapers.
- 9 The radio presenter hasn't got a robot vacuum cleaner.
- 10 The presenter has a cup of tea with the robot.

### Section 2 Reading Comprehension



**Match the people to the job advertisements. There are two job advertisements you do not need.**

1. John is studying Medicine at Cambridge University. It is his dream to become a doctor but he's not sure if he wants to work in a hospital. He loves travelling and learning about different countries and cultures.

2. Martha doesn't want to go to university because she doesn't like studying. She is interested in books and music and she loves chatting to people. She has a small amount of money to invest.

3. Stan wants to live abroad and use his experience as a teacher of small children. He is happy to study for another qualification if necessary.

4. Lynn is very ambitious and wants to earn £1 million before she's 40. She is finishing her degree in Economics and would like to start working as soon as possible.

5 Martin and Clare love cooking and they want to work together. They don't have many qualifications but they have a lot of experience in preparing food for parties and events.

a) South American Challenge: We are an international organization planning a study expedition to Chile and Argentina. The expedition will leave in May. If you are between 21 and 42 and have a background in anthropology, then send us your CV, and we will arrange an interview as soon as possible.

b) MUBOOK: Open a branch of 'MUBOOK,' a fantastic new chain of shops where people can buy music and books while sitting comfortably in a café, tasting our sweets, cakes, coffees and wide range of teas. You don't need a lot of money, just enthusiasm! Don't miss this opportunity. Call now on 1789 54321.

c) Econ International: A well-known multinational company is looking for young professionals with good qualifications and team spirit. You will be offered career development as well as a good salary. Minimum requirements are a degree in Economics or Law and good knowledge of two foreign languages. Priority given to applicants with an MBA.

d) Health Kenya: Our non-profit organization is looking for doctors and nurses to work in our clinic in Mombassa, Kenya. Applicants will need to be passionate, adaptable and committed. In exchange they will get great professional satisfaction and the experience of a lifetime.

e) Kent Events: Cooks are needed to work in a beautiful manor house in Kent. We organise weddings and parties and applicants should have some suitable experience. For more information call 543 98548.

f) Interlang: Get a useful qualification and enrol on our TEFL course. Teaching English as a Foreign Language will give you great satisfaction and the possibility to travel and live abroad for as long as you wish. Two different courses are available: 45 hours for people with teaching experience and 90 hours for those who have never taught before.

g) Cook and cruise: A fully qualified chef is needed on a cruise ship leaving for the Caribbean. High salary and the possibility to enjoy a fantastic holiday make this offer extremely interesting. You must be available to start work immediately. Please apply to [cruiseinparadise.com](http://cruiseinparadise.com).

1 John \_\_\_\_\_

2 Martha \_\_\_\_\_

3 Stan \_\_\_\_\_

4 Lynn \_\_\_\_\_

5 Martin and Clare \_\_\_\_\_

### Section 3 Language Use



#### 3.1 Complete the e-mail with a, an, the or – (no article).

Hi Jackie,

0 The trip to Naples was amazing. As you know, we love 1 ..... Italian food and 2 ..... pasta we ate was 3 ..... best I've ever tried. We took a few boat trips to the sites of the ancient Roman cities of Pompeii and Herculaneum – fantastic! Well, I'm 4 ..... architect



and Julie's 5 ..... history teacher, so that's the kind of thing we like! We must go! Call you later. Ted



**3.2 Read what Sarah says about television in her country. Complete the text with too much, too many or (not) enough.**

Television in my country is generally poor quality and not very informative. There are 0 too many programmes like soap operas or reality dramas that have no educational value, and 1 ..... documentaries or news programmes. It is difficult and annoying to watch a film on TV because there are 2 ..... adverts. There's 3 ..... local news – it's terrible, 15 programmes a day – and 4 ..... international news – only one programme a day. There are 5 ..... TV channels in my country to offer the public something different, more intellectual and more international, so why don't they do it?



**3.3 Complete the dialogues with will or going to.**

**Philip:** What are your holiday plans this year?

**Tim:** <sup>0</sup> I'm going to the USA for a month.

**Ruth:** This Maths homework is too difficult.

**Mum:** Really? Don't worry, I <sup>1</sup> \_\_\_\_\_ help you.

**Duncan:** My wife's very nervous at the moment.

**Meryl:** Really, why?

**Duncan:** She <sup>2</sup> \_\_\_\_\_ a job interview tomorrow.

**Jane:** Sorry, I can't pay for this coffee. I haven't got enough money!

**Simon:** That's OK. I <sup>3</sup> \_\_\_\_\_ get it.

**Angela:** I predict that you <sup>4</sup> \_\_\_\_\_ be very successful in the future, Rob.

**Rob:** Well, I <sup>5</sup> \_\_\_\_\_ be successful in this job, that's for sure. I want to change my career.



**3.4 Complete the text using the correct form of the verbs in the box. Use the past simple passive.**

lose

damage

kill

destroy

~~flood~~

rescue

There has been a lot of rain for the last three days and last night our village 0 was flooded. Fortunately nobody 1 ..... , but some dogs and cats 2 ..... Some people 3 ..... from the roofs of their houses. I don't think any homes 4 ..... completely, but some 5 ..... by the water. It will take a lot of time and money to put things right.



**3.5 Complete the text with disaster words. The first letter has been given to you.**

Text A

Good evening, this is the News at Ten. In Indonesia the 0 tsunami has caused a lot of harm and many people are in serious danger. Meanwhile, in Italy the 1 v..... Etna has erupted again, but luckily with no threat to the villages nearby. In South America a 2 h..... has hit the island of El Sombre off the coast of Venezuela. In France after weeks of rain there is a serious 3 f..... in the area surrounding the River Garonne. In California a light 4 e..... has shaken the area around San Francisco, causing alarm, but no damage. And finally, we have reports that a small 5 n..... b..... was tested yesterday in the South Pacific and that some islands may be uninhabitable as a result.

Text B

I'm sure that most people want to live in a small country 0 cottage. Well, I don't. I want to live in the city where there's lots to do – but not in a 1 b..... of f..... My ideal home is a 2 s..... house near the city centre. I'd like a little 3 g..... with flowers and a white 4 f..... all round it, with a 5 g..... and, of course, a 6 g..... for my car. I'd prefer an old house with a 7 c..... on the roof and a fireplace inside. My brother lives in a 8 c..... by the sea – a house on wheels! It's very cold in the winter but at least he can move his home easily. My sister lives

in a nice 9 b..... on a 10 h..... e..... All the houses are exactly the same.



### 3.6 Underline the correct word or phrase.

0 A: **There's no point in / There's nothing wrong with** buying DVDs if you haven't got time to watch them.

B: Yes, I know you're right. It is a waste of money.

1 A: Hmm, what do you think? Shall I have a big party or a quiet dinner with a few friends?

B: Well, it's your birthday. **It's all over the place. / up to you.**

2 A: **There's nothing wrong with / It's up to you** asking for help if you need it.

B: OK, I will. I wanted to try to do it on my own first.

3 A: Can you get me some apples when you go to the supermarket?

B: OK, no problem. **If you say so. / Anything else?**

4 A: Come on, tidy your room. Your clothes are **all over the place. / up to you.**

B: I know. I haven't had time to put them away.

5 A: I don't think we need to take the dog for a walk. He went out this morning.

B: **Anything else? / If you say so.** But he's usually taken for two walks a day.

#### Section 4 Writing



**Your English teacher has asked you to write a story. Your story must begin with this sentence:**

**It was a disaster!**

Write your story in about 150 words.

Good luck!!!
--------------

Total    _  /40
-----------------

Post-test link: <https://www.liveworksheets.com/l-gh1816237rn>

## Appendix C

### Student survey

This online questionnaire is designed for EEC Afterschool English program high elementary level students. The survey aims to determine the students' perceptions about the effectiveness of formative assessment implemented during the online teaching. Your response will be of great help to the research!

Please, read and choose one of the options !!!!

Այս առցանց հարցաթերթը նախատեսված է EEC անգլերեն լեզվի ուսուցման արտադպրոցական ծրագրի աշակերտների համար: Հարցման նպատակն է պարզել աշակերտների ընկալումները ընթացիկ գնահատման օգտագործման արդյունավետության մասին առցանց տիրույթում: Ձեր պատասխանները մեր ուսումնասիրությանը շատ կօգնեն:

Խնդրում ենք կարդալ և ընտրել տարբերակներից մեկը:

#### \* Required

1. How often did you attend the classes?

Ի՞նչ հաճախականությամբ եք հաճախել դասերին:\*

- Always/Միշտ
- Often/Հաճախ
- Seldom/Հազվադեպ
- Never/Երբեք

2. How often were you prepared for the lesson?

Հաճա՞խ եք պատրաստ եղել դասերին: \*

- Always/Միշտ
- Often/Հաճախ
- Seldom/Հազվադեպ
- Never/Երբեք

3. The formative assessment techniques used during the online classes were useful for me.

Ընթացիկ գնահատման օգտագործման առցանց մեթոդները արդյունավետության էին ինձ

համար: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

4. The formative assessment techniques used during the online classes improved my English performance.

Ընթացիկ գնահատման օգտագործման առցանց մեթոդները բարելավեցին իմ անգլերենի

արտադրողականությունը: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

5. The formative assessment techniques used during the online classes helped me to identify both my strengths and weaknesses.

Ընթացիկ գնահատման օգտագործման առցանց մեթոդները օգնեցին ինձ պարզել իմ ուժեղ և թույլ կողմերը: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

6. The formative assessment techniques used during the online classes helped me to concentrate on my problems and improve them.

Ընթացիկ գնահատման օգտագործման առցանց մեթոդները օգնեցին ինձ կենտրոնանալ իմ խնդիրների վրա և բարելավել դրանք: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

7. The systematic implementation of exit tickets was beneficial for me. Exit ticket - ներքին

սխառեմատիկ կիրառումը օգտակար էր ինձ համար : \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ

- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

8. The implementation of the self-assessment checklist was very beneficial for me.

Ինքնագնահատման ստուգաթերթիկի կիրառումը կիրառումը շատ օգտակար էր ինձ համար: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ
- 

9. Periodic and short quizzes were very useful for reviewing and reinforcing the new content.

Սխտեմատիկ և կարճ թեստերը օգտակար էին նոր բովանդակությունը կրկնելու և ամրապնդելու համար: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

10. The feedback from the teacher helped me to improve my work and take my learning forward. \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ



- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

11. I would like the teacher to continue the implementation of formative assessment techniques.

Ես կցանկանայի, որ մեր ուսուցիչը շարունակի ընթացիկ գնահատման առցանց մեթոդների կիրառումը: \*

- Strongly disagree/Բոլորովին համաձայն չեմ
- Disagree/Համաձայն չեմ
- Undecided/Տատանվում եմ
- Agree/Համաձայն եմ
- Strongly agree/Ամբողջովին համաձայն եմ

12. From your perspective which of the formative assessment tools were the most effective? You can choose several options.

Հստ Ձեզ՝ ընթացիկ գնահատման առցանց մեթոդներից ո՞րոնք են ամենաարդյունավետները:

Կարող եմ ընտրել մի քանի տարբերակ: \*

- Self-assessment checklists
- Quizzes
- Exit tickets
- Peer assessment
- Presentations

Students' survey link:

[https://docs.google.com/forms/d/1gOEprSbz2iX2mQMBtrEJ8iLvpObY9HhQHRyx\\_u4rRkw/edit](https://docs.google.com/forms/d/1gOEprSbz2iX2mQMBtrEJ8iLvpObY9HhQHRyx_u4rRkw/edit)

## Appendix D

### Semi-structured Teacher Interview

1. From your perspective, what is the primary goal of classroom assessment?
  2. What type of assessment (formative or summative) do you think better supports students' learning?
  3. Do you think formative assessment or assessment for learning effectively enhances students' motivation and achievement? Why?
  4. Is the effectiveness of formative assessment influenced by the educational settings(online, face to face)?
  5. How effective were the tools you used in face to face classroom?
  6. Do you think online assessment techniques improved students' performance?
  7. Which of the tools of formative assessment do you consider the most effective for online settings? Why?
  8. What is your attitude toward self-assessment? From your perspective, were one-minute reflections beneficial for the students?
  9. Are self-assessment checklists practical for students to check their progress?
  10. What is your attitude toward peer-assessment?
  11. Are periodic and short quizzes effective for students to memorize new content or review the old one?
  12. From your perspective, how important is it to provide students with feedback during the course?
  13. Which of the online formative assessment techniques will you use and which of them will not?
-

Appendix E

Classroom observation Form

**Observation form**

Teacher's name.....

Class.....

Date.....

What techniques of formative assessment are implemented during the class?	
Are the activities engaging for the students?	
Additional comments	

## Appendix F

### Exit ticket

\* Required

1. Things I have learned today..... \*

---

---

---

2. Things I found interesting..... \*

---

---

---

3. A question I still have..... \*

---

---

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Thank you :)

Exit ticket link:

<https://docs.google.com/forms/d/1qPR447EAYBerMs6QMDmPScjHiUxLK3NV6q9uitAvKvo/edit>

## Appendix G

### Quiz

<b>QUIZZIZ</b>	Name:
<b>Present Perfect for/since</b>	Class:
11 Questions	Date:

1. He's been here..... May and he still can't speak a word of English.

- a) since                      b) for

2. I've only known her ..... the beginning of last week.

- a) for                              b) since

3. She's been smoking ..... a long time.

- a) since                              b) for

4. I have had this watch ..... 2000.

- a) since                              b) for

5. I have had this watch.....more than 40 years.

- a) for                                      b) since

6. I \_\_\_\_\_ .

- a) have been a student for five years.                      b) I have been a student since  
five years.
- c) I have be a student for five years.

7. Jason and Clara \_\_\_\_\_.

a) Jason and Clara has been friends for more since 10 years.

b) Jason and Clara have been friends for more than 10 years. c)

Jason and Clara were friends for more than 10 years.

8. Steven \_\_\_\_\_.

a) Steven has studied Math for last week.

b) Steven studied Math since last week. c)

Steven has studied Math since last week.

9. I have studied English ..... 9 years.

a) for

b) since

10. She \_\_\_\_\_.

a) has not seen her friend for last spring.

b) did not see her friend since last spring.

c) has not seen her friend since last spring.

Answer Key: 1. a 2. b 3. b 4. a 5. a 6. a 7. b 8. c 9. a 10. C.

Quiz links:

<https://quizizz.com/admin/quiz/60377092d29c29001c52979f/articles-a-an-the>

<https://quizizz.com/admin/quiz/6019945269054c001d542120/present-perfect-for-since>

<https://quizizz.com/admin/quiz/60088b18a9ec1e001b953174/present-passive-and-let>

Appendix H

Self-assessment Checklist

**Self-assessment checklist**

**Name** \_\_\_\_\_



**I can do this!**



**I am getting there!**



**I need help!**

I can remember the new words from the units and use them.			
I know and I can use <i>Present Simple Passive</i> .			
I can use and I know the difference between <i>let</i> and <i>to be allowed to</i> .			
I know and can use <i>Present Perfect Simple</i> .			
I know and can use <i>Past Simple Passive</i> .			
I know and can write an e-mail.			
I can describe a person's age.			

Self-assessment checklist link:

<https://docs.google.com/forms/d/1H5fDyOwPkQ980-wSIPnSTrnvPLrU-haKp8lquVOJ>

[Ggc/edit](#)



## Appendix I

### Peer-assessment Slips

Feedback for _____	
Glow	
Grow	I like how you.....
	Next time try to.....

Peer-assessment slips link:

<https://docs.google.com/forms/d/16uQ0X8Ipay2Y4uC4P-wI2RWQA3N-fUK9mrIZdVdLjDk/edit>