

AMERICAN UNIVERSITY OF BEIRUT

THE EFFECT OF SHORT EMBEDDED FORMATIVE
ASSESSMENTS AND FEEDBACK ON STUDENT READING
COMPREHENSION ACHIEVEMENT OF GRADE FOUR
STUDENTS

by
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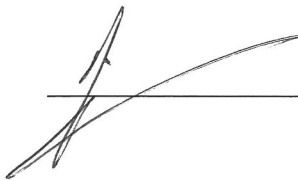
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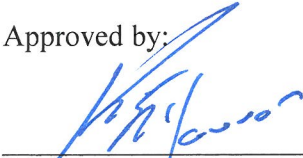


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I dedicate this thesis to my lovely mother. Thank you for always believing in me. I love you.

AN ABSTRACT OF THE THESIS OF

Nancy Garo Haji-Avedikian for Master of Education
Major: Educational Psychology/Testing and
Measurement

Title: The Effect of Short Embedded Formative Assessments and Feedback on Student Reading Comprehension Achievement of Grade Four Students

The current study investigated the effect of short embedded formative assessment and feedback on the achievement of English reading comprehension of grade four learners who take English as a first foreign language. Another purpose of the study was to inspect the difference in the impact of the formative assessment on high and low-achieving students. Accordingly, a quasi-experimental design was implemented for the duration of 8 weeks to enable the determination of whether each of the two independent variables (achievement level and assessment strategy) has an effect on the dependent variable (student reading achievement). The experiment was done on two sections (N = 50) of grade 4 students of a private school located in Greater Beirut Area. TORC-4 (Test of Reading Comprehension 4th edition: a standardized test) was administered as a pre and a posttest for the formative and conventional assessment groups. Descriptive statistics and ANCOVA was calculated for the pre and post-tests of the formative and conventional assessment groups in the process of data analysis for the first research question. No significant differences were found between the formative and conventional assessment groups except in one subtest. As for the second research question, the upper third and the lower third of both groups (formative and conventional) were categorized as upper and lower thirds based on the scores of TORC-4 in the pretest. Descriptive statistics and ANCOVA was calculated for the upper and lower thirds of the formative and conventional assessment groups.

Keywords: formative assessment, summative and conventional assessment, English reading comprehension

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CHAPTER I

INTRODUCTION

Context of the Problem

Summative assessment tools have been used as primary means of evaluating student performance and achievement over the past decades (Cizek, 2010). A Summative assessment is any assessment done at the end of a unit for the purpose of collecting information and categorizing student performance (Cizek, 2010). Nevertheless, evaluating student performance by solely relying on summative assessment results, made it subject to criticism because it instigated major hindrances in the interpretation and analysis of the students' attainment of the targeted educational goals and objectives. The inadequacies of summative assessments' capacity in evaluating students' skills and abilities ranged from belittling the role of the student in the learning process in the classroom to magnifying categorization, classification and ranking; hence, this contributed to the need of using alternative means of evaluating students' performance: one of which was formative assessment. Formative assessments are given midstream and focus primarily on identifying the strengths and weaknesses of students in given subject areas. Formative assessments aid teachers in planning for instruction and students in the learning process (Cizek, 2010). Formative assessments help reflect the true ability and cognition of the student and most importantly yield appropriate and measurable outcomes for upcoming performances

(Covic & Jones, 2008). Thus, one of the main purposes of using formative assessments was to swerve away from the “flaws” that use of summative assessment initiated and tried to tackle aspects that were not embarked upon previously in the process of teaching, learning and assessment. Several studies show that formative assessment’s usage in evaluating student performance can help improve students’ acquisition of the targeted educational goals thus improving educational performance as a whole (Cauley & McMillan, 2010). Nonetheless, optimal progress in academic achievement of students is very much related to the proper execution of formative assessment and formative feedback (Cauley & McMillan, 2010). What is of great and inseparable prominence of formative assessment is formative feedback. It is the timely, positive and constructive feedback that helps students get engaged in the learning process and assess their own progress (Nicol & Macfarlane-Dick, 2006) through monitoring and evaluating their thinking and finally reaching the desired objectives. It is impertinent that formative assessment is done based on how the students’ given performance can be compared to the desired performance; this gives indication to what needs to be done in order to close the gap between the current and the desired performance (Black & William, 2009). The results of an assessment tool that does not allow a detailed and a comprehensive comparison between a given and a desired performance will consequently prove to be inaccurate and inefficient (Drouin, 2010).

In Lebanon, teachers do not seem to assess students formatively and that is due to several reasons and factors besides the fact that there is a certain degree of misapprehension of the concept of formative assessment as a whole (Abi Faraj, 2011). The current study

aims at identifying the effect of short embedded formative assessments on student achievement and specifically in the area of English reading comprehension.

Purpose Statement

Advances in the field of education bestowed different contributions to theory and practice that aim at improving student achievement. Even though the definition and the means through which achievement is attained has been evolving, the core educational objectives reside in the student's degree of accomplishment in different subject matters or areas. Surely, one of the most acclaimed and common means of measurement has been tests; nevertheless, the formation, content and the administration of the test have been continuously evolving and developing. Formative assessments, being one of the most prominent means of assessment, teaching and learning, introduced advances in the field of educational valuation and raised the focus of assessment far above the culpability of summative assessments (Cizek, 2010). Tests with summative purposes on the other hand are used in order to evaluate student performance in a highly systematic way whereby the result is the product or the outcome.

The incorporation of formative assessments in daily lesson plans has proven to help produce better results in teaching, learning and student performance; findings that support the latter partly subsidized the end of the glorification of the summative assessment (Black & William, 2009). What is of crucial importance in the adoption and use of formative assessments is the way through which they are properly incorporated into daily lesson plans in addition to their mode of execution. The primary advocates of formative assessment and

formative feedback were Black and William (2009); they claimed that the proper use of formative assessments can highlight the strengths and weaknesses of a student's performance, assist educators to plan for instructions, aid students in their learning process thus enhancing autonomous learning. Several studies show how the incorporation of formative assessments into teaching can lead to better achievement (Fuch & Fuch, 1986; Bergan, Sladeczek, Swartz & Smith, 1991; Martinez & Martinez, 1992; Fontana & Fernandez, 1994; Kozulin & Garb, 2004; Wininger, 2005; Furtak et al., 2008).

This of course, does not mean that there has not been controversial information pertaining to inherent issues of formative assessments as brought up by some critics. Taras,(2009) for example, disparaged Black and William's (2009) lack of theoretical framework in their model of formative assessment, the inconsistencies found in the definition of the formative assessment and the difficulty of its replication in different contexts and subject matters. Taras (2009) also criticized that the role of the teacher and the student is not clear within the context of formative assessment. The studies that Black and William (1998) have cited as evidence to show that formative assessment's incorporation improves student achievement have been criticized for methodological issues related to the small sample of teachers and students, the inability to define the formative assessments independently from the activities that were conducted in the classroom during the time of the treatment and the inability of the study to give meticulous information about formative assessments that were utilized (Dunn & Mulvenon, 2009).

In Taras's (2009) "The Missing Link", the author stated that summative and formative assessments should not be mutually exclusive. Wininger (2005), in accordance to

Taras's argument drew upon the combination of both assessments: FSA (Formative Summative Assessment) whereby exams are reviewed with students and feedback is given to the students accordingly. In this empirical study, Wininger (2005) found that the students who actually took the FSA had a 10% increase in their performance on their retake of the test and highlighted that retention can be increased when students engage in critical thinking and self-evaluation on the exam. A hybrid formative-summative assessment approach would help show that a positive interaction between the two assessments can occur. This approach allows the usage of summative assessment for formative purposes; this further instigates the effect of formative assessment has on student achievement.

The purpose of the current study is to investigate the effect of formative assessment on student achievement in the area of English reading comprehension of grade four Lebanese students who take English as a first foreign language as opposed to the effect of summative assessment or the non-formative assessment or a conventional assessment approach. Another purpose of the current study is to study the difference in the impact of formative assessment on high-achieving and low-achieving students.

Definitions

Formative Assessment

Any administered midstream and its primary focus and purpose is to identify strengths and weaknesses, assist educators to plan for instructions and aid students in their learning process is a formative assessment. It opens up opportunities and contingency for

revising and gaining self-evaluation skills in addition to enhancing autonomous and responsible learning on the part of the student (Cizek, 2010).

Summative Assessment or Conventional Assessment

Any assessment done at the end of a unit and its aim is to gather information and categorize student performance is a summative assessment (Cizek, 2010). Summative assessments are done to obtain measurement of achievement and use it in decision making, making promotion decisions or classifying test takers in categories

English Reading Comprehension

In the current study, English reading comprehension refers to sessions of English that are given five times a week. In these sessions students are exposed to different types of passages and genres of passages (American and British). Students are taught different elements that make up a reading text. Also, they are required to master skills and abilities pertaining to the comprehension of a text through understanding, explaining, analyzing, and interpreting the content and the questions or activities posed. In the current study, the students are Lebanese students who have been taking English as a first foreign language since kindergarten.

Building on Previous Research

Classroom instruction has almost always been oriented towards testing and evaluating student performance through the use of summative tests; students were rarely given the chance to be assessed formatively. In other words, the teacher has always been

the center of the teaching process and the student has almost always been a passive recipient. The proper execution of the formative assessment would suggest a switch in the roles between the teacher and the students. As mentioned earlier, the execution of the formative assessment has to be submerged and intertwined with the daily lessons in such a way that the traditional classroom context, learning theory paradigms and information processing are not accentuated because that would render the whole attempt or procedure of teaching and learning inoperable (Van Den Bergh et al., 2012). The constructivist learning theory can assure a learner-centered teaching approach whereby students construct their own learning. Learning ought to be based on previous interactions in an “authentic” environment; in other words, formative assessment’s significance is identified, highlighted and utilized in a constructivist classroom (Baroudi, 2007). The prominence of formative assessment is closely related to importance of cultivating autonomous and self-directed students who are actively engaged in their learning processes. Nevertheless, creating a proper learning environment is not easy; let alone a formative learning environment (Brookhart et al., 2010) whereby students can be actively and continuously engaged in the learning process. Surely, the teacher is responsible for designing and implementing an effective learning environment while the learner is responsible for the learning within this environment (Black & William, 2009). The teacher is to engineer effective classroom discussions and learning activities that enhance student understanding and involvement. In order to probe on the different aspects of learning, it is suggested that a variety of assessments are used to collect information about the students’ ability. The execution of formative assessments and the feedback that follows allow students (and the teacher) to perceive where they are and what they need to do in order to close the gap and reach the

targeted learning goals and objectives (Covic & Jones, 2008). Students are encouraged to monitor and evaluate their thinking in order to identify strategies that can improve their understanding and performance respectively (Cauley & McMillan, 2010); this is considered self-assessment; the student is supposed to identify the discrepancies between the current and desired learning outcomes and figure out ways through which the outcomes can be reached and attained. A formative assessment is a process through which evidence is elicited from assessment about student learning and instruction is modified based on this evidence in order to reach the goals intended (Cauley & McMillan, 2010). Black and William (2009) presented the different types of activities that ought to be developed by the teachers in the classroom; these activities range from sharing success criteria with learners, classroom questioning, comment-only marking, peer and self-assessment to formative use of summative assessments. These types of activities help clarify and share intentions and criteria for success, provide constructive feedback, and hold learners responsible for their learning through autonomous learning, self and peer-assessment. The teacher is supposed to base classroom decisions on day-to-day observations of the children as they work, read and write in the classroom (Brookart et al., 2010).

In the current study, a standardized test is used in order to measure the impact of the treatment that is given to the students of the formative assessment group. Throughout the course of the study, the students of the formative assessment group were subjected to a series of formative assessments. It is necessary to mention that Lebanese schools that have adopted English to be the first foreign language instead of French teach different subject areas such as mathematics and sciences (physics, chemistry and biology) in English. The

schools that have adopted the American system teach geography, history, social sciences, philosophy, and economics in English. The usage of English language in different subject matters becomes of prior importance and significance mainly because students' comprehension and performance in various subject matters has a lot to do with their level of proficiency in English (Neddenriep & Hale, 2011). Furthermore, Lebanese students take the official exams in grades nine and twelve in English. This makes the acquisition of English language and specifically comprehension crucial because the student's educational attainment in different subject matters is based on it. In other words, if a student has problems in the procurement of abilities and skills pertaining to English language, it is most likely that those problems will be reflected in the ability and performance in other subject matters such as mathematics and sciences. For instance, if a student has problems in English comprehension then these problems will most likely affect and deteriorate performance in other subject matters as mentioned earlier. The problem of comprehension is not only faced in the process of learning the target subject matter because it is taught in English but it also jeopardizes the student's ability to read, understand and respond to different types of questions in different forms of assessment.

Rationale

Previous research studies have reported that the internalization of formative assessments in daily lesson plans and its incorporation would actually lead to an increase in academic achievement (Ruiz-Primo & Furtak, 2006; Bergan, Sladeczek, Swartz & Smith, 1991; Kozulin and Garb 2004; Fuch & Fuch, 1986; Mardani & Tavakoli, 2011; Yin et al, 2008). Students who have been exposed to formative assessments and formative feedback

have done better on a posttest than on the pretest that was given to them (Brookhart et al., 2010).

Research studies that have attempted to study the effect of formative assessment on student learning, achievement and motivation have been adopted in mathematics (Frederiksen & White, 1997; Fontana & Fernandez, 1994; Martinez & Martinez, 1992) and sciences (Yin et al., 2008). A study that investigated students' achievement in the area of reading and language arts was done by Thompson, Paek, Goe and Ponte (2004). The researchers examined the achievement of students that were taught by teacher with high engagement and low engagement. Results showed that the students whose teachers participated in the "California Formative Assessment Support System for Teachers" CFASST, did better than those whose teachers did not. In the study, the students' achievement was measured in different subject matters: math, reading, language arts and spelling. Therefore, the focus of this study (Thompson, Paek, Goe & Ponte, 2004) was done through a different the perspective than the current one; the study shed light on the teachers' training and development and the effect or success that had in the use of formative assessments and how that affected student achievement in the given subject areas (reading among other subtests of subject areas). Our study on the other hand highlights and emphasizes the students' performance.

Another study that posed a significant similarity to the current study possessed two remedial groups of science students: one that was exposed to formative assessment while the other group was exposed to a treatment (in the subject matter of science) that lacked formative assessment (Furtak et al., 2008). The current study is relevant to the latter in

terms of incorporating the two differentiated groups; one that is going to be exposed to an intervention program (formative assessment) and another group that is not going to be given the intervention program and is going to be the conventional assessment group.

The meta analysis done by Fuch and Fuch (1986) involved participants who had learning difficulties – similar to the current study. Nonetheless, the lower achieving students of the current study do not necessarily have learning difficulties. The current study therefore sheds light on the effect of formative assessment and feedback on lower achieving and higher achieving students.

The current study has chosen grade 4 students because formative assessment has proven to be effective in elementary grade students (Schunk, 1996). Nevertheless, Schunk's study was done in the area of mathematics.

Therefore, the current study has combined several elements and variables from other studies in order to investigate the effect of formative assessment and feedback on grade 4 students who take English as a first foreign language in the area of English reading comprehension in the Lebanese context. This investigation also encompasses higher and lower achieving students in the given area.

Hence, the rationale of the current study intends on extending further research and adding to the knowledge in the area of English reading comprehension acquisition and assessment in specific.

Contribution to Educational Research and Practice

As a response to the increased attention to external testing, Black and William (1990) introduced the concept of formative assessment as an integral and essential component of assessment inside classrooms. Formative assessment gains its importance and esteem because of the feedback that it gives the learners and that in turn aids in the progress and therefore acquisition of the skills and abilities. Assessment is considered formative when it yields information that is helpful for the teacher and the students to modify their teaching and learning practices (Baroudi, 2007). This in turn helps improve learning and teaching – that are inevitably interrelated.

The current study will have direct implications for practice for it will assist students in acquiring the skills and abilities that are to be targeted and eventually enhance their academic performance and achievement.

This study will also provide validation to the theory of social constructivism of Vygotsky (1986) that taps the zone of proximal development. The proposed study will validate this theory because the importance and success of the formative assessment and strategy is embedded in the specificity, accuracy and type of feedback that is given to the student. This feedback's role and purpose is to help the learner reach the zone of proximal development i.e. reach full potential. When feedback is not internalized by the student in order to monitor, engage in learning activities and assess progress towards goals, formative assessment will not have reached its full potential in aiding student learning (Nicol &

Macfarlane-Dick, 2006). The results of this study will contribute to further ground and verify the theory.

Research Questions

1) Does the incorporation of frequent formative assessments significantly improve achievement in English reading comprehension when compared to the practice of conventional assessment?

2) Do the two types of assessment (formative and conventional) impact high and low achieving students differently in English reading comprehension?

Hypotheses

It is hypothesized that the formative assessment group that is exposed to formative assessment and feedback will score higher in the posttest of reading comprehension achievement compared to the conventional assessment group. This hypothesis is based on findings of the literature review that revealed the positive effect of formative assessments given along with appropriate feedback that caters to the needs of students (Brookhart et al., 2010).

The review of literature also revealed that formative assessments and feedback are specifically beneficiary for low achieving learners (Fuch & Fuch, 1986). Therefore, it is expected that low-achievers of the formative assessment group will show higher improvement on the standardized test TORC-4 (Test of Oral Reading Comprehension)

when compared to the performance of lower achieving students of the conventional assessment group and the higher achieving students of the formative assessment group.

CHAPTER II

LITERATURE REVIEW

Frequent formative assessments with proper and timely feedback are administered in order to improve reading comprehension achievement and motivate students to be more engaged and hands-on. Even though knowledge about the attainment of student learning outcomes has not always been the same, ensuring high levels of achievement and performance has always been a primary educational goal. The administration of teacher-prepared tests has been one of the main ways in which student learning and achievement has been tested and measured. Nevertheless, these tests have not always provided accurate or correct indications of the students' ability in a given domain and that is mainly because of the lack of sound psychometric properties of the assessment tools that had been used. As developments pertaining to the psychometric qualities of tests advanced and issues related to reliability and validity were being tackled – especially in the United States – high-stakes assessments gained more significance and magnitude. The role of standards-based high-stakes tests became so augmented that some schools began teaching to the test and swerved away from the chief educational purposes and objectives. Even though testing has been popular ever since World War I whereby army-related standards were tested, it actually gained and asserted the peak of its popularity with the passage of The No Child Left Behind Act policy in 2002. This policy became a pressing matter; it collaborated to raising the stakes of state-mandated assessments. Thus, assessing students became an impending issue. Such provisions put summative and standardized assessments in the frontier.

Summative assessments or standardized tests do not sanction for moments of contingency; in other words, their usage does not allow for opportunities for learning and re-teaching and specifically for learners who had different types of difficulties. The need to attend to the different needs of learners with different difficulties augmented the role and importance of formative assessment. It was also realized that properly designed classroom assessments may have a powerful psychological effect on children as providing formative information to improve instruction (Yeh, 2010). Accordingly, changes and alterations to summative assessments were brought up in such a way that students needs can be catered to.

When summative assessments were the only testing means that were relied upon, grades and accountability mattered the most. Nonetheless, it was later realized that formative means of feedback and corrective instructional measures are of more prominence since they give plenty of specific and specialized information that can guide and help students tackle the targeted educational goals. Subsequently, this highlighted the difference between the goals and outcomes of the summative and the formative assessments.

Summative assessments are done to obtain measurement of achievement and use it in decision making, making promotion decisions or classifying test takers in categories (Cizek, 2010). Information taken from such tests is representative of an overall test performance. According to Cizek (2010) in the Handbook of Formative Assessment, summative assessments can have high psychometric qualities but because of the focus on the overall performance, they rarely yield diagnostic information or identify areas of strengths and weaknesses for remediation. On the other hand, formative assessments are administered midstream and their primary focus and purpose is to identify strengths and

weaknesses, assist educators to plan for instruction, aid students in their learning process, revising and gaining self-evaluation skills in addition to enhancing autonomous and responsible learning on the part of the student (Cizek, 2010). Cizek (2010) states that although this area of assessment has been neglected in the past because of high stakes demands from the government on educators and teachers, formative assessment has to have its prominence for it will be providing missing links between classroom practice and large-scale assessments and most importantly promote greater achievement gains in students.

Definition of Formative Assessment: A Brief Historical Background

Black and William (1998) have defined formative assessment “as encompassing all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged”. Fisher and Frey (2007) highlight the difference between formative and summative assessment and the means through which the proper administration of formative assessment can improve instructional methods and strategies and provide apposite feedback to the students. Rapid and embedded (in instruction) classroom assessments also help improve student engagement, effort and achievement by influencing student perceptions of their own abilities to conventional assessment their academic performances, as well as providing formative information (Yeh, 2010). Therefore, the main rationale of administering formative assessments is to adapt teaching to the students’ needs. Moreover, it encourages student motivation and involvement through the provision of effective feedback (Yeh, 2010). Eventually, students should be able to assess themselves and

understand how they can improve. This is why formative assessment is also referred to as “assessment for learning” (Stiggins, Arter, Chappuis and Chappuis, 2006) since students’ progress and learning is its optimal purpose is students’ progress and learning is and not accountability. As stated by Stiggins (2005), students can “partner up” with the teacher in order to monitor and assess their level of attainment compared to the desired goals.

Marzano (2007) talked about the different steps that that help track the different goals that students need to attain in order to reach a curricular outcome; defining the goals, sharing the rubrics, students identify these goals, assess the attainment of the goals and change instruction based on the “current” performance. Formative assessment’s proper administration that is accompanied with specific and timely feedback enables students to take on an equal part in the learning process (Popham, 2008). This should also result in making assessment more specific and targeted (Popham, 2008).

Hence, what type of assessments are formative? Black (2010) stated that any assessment that provides evidence of student learning or progress and has potential to improve instructional decision-making can be formative; the decision can be made by the teacher or the students themselves. Therefore, formative assessment identifies and informs future instruction. Black (2010) also identified four types of cycle lengths for formative assessment: long cycle that is across marking periods, quarters or semesters (four weeks to one year); medium cycle that is within and between instructional unit (one to four weeks) and short cycle that is within and between lessons (day by day). In order for the formative assessment to reach its goals in instruction, it should first have clear goals, engineer effective classroom discussions, provide feedback that moves the learner forward, activates

students as instructional resources for one another and activates students as the owners of their own learning. Simply embedding assessments in curriculum will not impact students' learning and motivation, unless teachers use the information from embedded assessment to modify their teaching (Yin et al., 2008). Summative assessments lack efficiency in this regard because they do not address the process and the body of work; moreover, their results are almost always given long time after the administration (Guskey, 2005) – this, makes it difficult for the teacher and the students to track their progress and work on the areas that require improvement in their performance.

Popham (2008) deliberated on the ways in which formative assessment would aid teachers make instructional decisions. He probed on the issue of assessment-based evidence that would give information about achievement status of the students and this in turn informs instructions whereby the teacher plans according to the given ability level of the students. The information given to guide instruction is then transformed to preparing activities that in turn help students reach the set curricular outcomes (Popham, 2008). Students learn effectively when they are aware of the goals, objectives and outcomes of a certain activity (Stiggins, 2005). It was found that students usually become disconnected when they are not confronted with the clear objectives of a task or a learning activity (Black and William, 1998b). Additionally, students learn better when they have “strong” and “weak” models of the work they are supposed to master (Stiggins, 2005).

Formative Feedback: an Essential Element of Formative Assessment

Formative feedback, being an inseparable entity of formative assessment, requires apposite and effective communication between the teacher and the students. Therefore, it is crucial that the teacher and the students have a consensus about the definition of important achievement expectations (McMillan, 2010) and communicate accordingly. The nature of the feedback is highly important; objective and positive feedback tends to increase perceived competence and intrinsic motivation (Yeh, 2010). Subjects who receive positive performance feedback have proved to display higher levels of intrinsic motivation compared to those who performed as good but did not receive the performance feedback. Formative feedback increases student ownership as cited in Edman, Gilbreth & Wynn (2010).

Timely and effective feedback plays an efficient role in the proper execution of formative assessments; teaching that emphasizes “behaviorism” and “information processing” in form of rote learning and memorization that is done through direct lecturing, does not give room for feedback transaction to take place in the classroom between the teacher and the students (Bergh et al, 2012). The disconnection with the constructivist learning theory imposes classroom conditions that do not reflect authentic situations in teaching and learning (Yin et al, 2008). As a result, the adoption and the implementation of formative assessment that is not conducted in a learner-centered environment becomes problematic. A teacher-centered environment would not allow for the proper execution of formative assessment and feedback and would accordingly fail in reaching the desired outcomes in enhancing student ability and performance of formative assessment. The

execution of formative assessment has to be done in a setting that allows the teacher and students to share partnership in the process of teaching and learning (Black & William, 2009). Feedback that recognizes small progresses and enhances self-efficacy can encourage students to try and tackle more difficult tasks (Evera, 1995). In this context, it is suggested that teachers pay close attention to their students' metacognition (Beijaard, Bergh & Ros, 2012) and help them develop awareness in this regard.

Student development is claimed to be “multidimensional” rather than sequential; prerequisite “learnings” cannot be conceptualized as neatly packaged units of skills or knowledge” (Pryor & Torrance, 1998). This is in accordance with cognitive scientists who are interested in highlighting the relationship between assessment and learning. Pryor and Torrance (1998) identify divergent assessment from a constructivist's point of view of education; this point of view is adopted with the intention of teaching by tapping the zone of proximal development that is based on Vygotsky's (1986) theory. This leads to deep processing and reflective thinking that orients students' learning towards “meaningful” learning and away from rote-memorization (Evera, 1995). Teachers need to plan more “consciously” for such assessments and not simply base it on the ideological commitments to a “student-centered” approach. Classroom-based formative assessment strategies have been recognized as fundamental to implementing new standards that emphasize the importance of teaching ways that promote deep understanding. This makes formative assessment an essential part of the repertoire of effective teaching behaviors (Baxter, Glaser & Pellegrino, 1998). It is further explained that what matters the most is the careful probing and analysis of student understanding that leads to adjustments which in turn influence

individual trajectories. Moreover, t assessment should provide feedback on instruction by calling attention to levels of student understanding at various times and in various contexts (Baxter, Glaser & Pellegrino, 1998).

James McMillan (2010) identifies the formative assessment cycle as a continuing process that involves teachers' evaluation of student work and behavior that gives feedback and instructional correctives to students. McMillan (2010) further states that one of the main purposes of the formative assessment is to improve student motivation, learning and achievement. It is through the extent to which assessments are embedded within instruction, the extent to which additional instructional strategies are employed and the extent of invigorated student learning and motivation that one gets to evaluate the efficacy of formative assessment (McMillan, 2010). Hence, formative feedback cannot be effective unless it has proper emotional dynamics, uses assessment for pupil learning and promotes adequate teacher preparation (Stiggins, 2010). According to Stiggins (2010), summative assessment usage is to provide the school system with ranking of learners from highest to lowest – this, naturally causes a lot of tension in students and school personnel. Each pupil's emotional reactions probably determine what they thought and how they acted in response to summative test results. Therefore, the dynamics of formative feedback have to be positive, stipulated and constructive. Feedback is proven to be most effective when it is nonjudgmental, involving frequent testing and presented immediately after the test (Yeh, 2010). The dynamics of emotions in of formative feedback refers to the social context that was discussed in “Teacher Feedback during Active Learning: Current Practices in Primary schools” (Beijaard, Bergh & Ros, 2012). In this article, the authors identified five

types of feedback and their corresponding meanings: questioning (elicit expected response), mediating (scaffolds), encouraging (praise efforts), conventional assessment and maintenance (help learning) (Beijaard, Bergh & Ros, 2012) and it was found that in order to enhance student learning and to improve teacher feedback, it is important that teachers set specific learning goals, communicate these goals to the students and explicitly relate the students' performance to these goals in their feedback.

Feedback is to be conceived by the student as helpful so that it enhances desired skills, refines learning valuable objectives and fosters intrinsic motivation by eschewing a connection to evaluations such as grades which are often viewed as external rewards or punishments.

Contextual Factors for Formative Assessment

There are many contextual factors that affect the way formative assessments are conducted and the degree to which they prove to be successful. McMillan (2010) identified five factors that need to be taken into consideration (1) classroom environment, (2) socio-cultural differences, (3) student ability and achievement, (4) grade level and (5) subject. Each of these factors influence the way formative assessment should be adapted and conducted. Classroom environment, for example, should encourage informal questioning and discussion. Students ought to feel safe to share ideas and receive feedback. They should also feel comfortable to debate these ideas with the classmates and their teacher. The teacher may transfer the responsibility of learning to students, resulting in more peer assessment and feedback, self-assessment and self-reflection (McMillan, 2010). Socio-

cultural differences is another aspect that needs to be taken into account; teachers for instance, may have to simplify the language used in a specific subject matter if there are students from different cultures. McMillan (2010) emphasizes the importance of the relationship between the teacher and the students. Moreover, some socio-cultural aspects may also affect formative assessment such as cognitive style and thinking orientation.

Arriving to the point of student ability, it is claimed that low-achieving students need more feedback and thus benefit more especially from specific and immediate feedback unlike high-achieving students who benefit more from delayed feedback and especially on complex tasks. Since autonomy is something that is encouraged by formative assessment, it is suggested that task difficulty must be continually adjusted upward to maintain an optimal level of challenge to each learner's competence (Yeh, 2010). Yeh (2010) further suggested that keeping each student in his/her own zone of proximal development, would ensure success and further assert their conventional assessment on their performances.

Subsequently, the fourth factor that McMillan (2010) discussed is the grade level; elementary teachers should have the time to observe learning and evaluate student understanding, give timely feedback and apply instructional correctives. It is claimed that with students of elementary grade levels, the teacher can allow room for self- and peer-evaluation thereby less teacher attention toward individual students. This makes formative assessment's efficacy somewhat higher in elementary classes than in middle or high school classes regardless of the subject matter.

Formative assessments highlight and place large emphasis on the notions of student engagement and responsibility and student self-assessment and direction and this contributes to having profound effects on student achievement (Cizek, 2011). One of the main reasons why formative assessments are highly beneficial is because of the absence of the emphasis on evaluation.

Formative Assessment Challenges

It may seem that formative assessments help resolve many unanswered educational issues in the classroom; nevertheless, this does not mean that there are not any challenges that need to be tackled. Cizek (2011) for instance, talks about the challenges that are in the classroom; these challenges are related to the purpose, resources, preparation, validity, accommodations and compliance. He goes further to discuss these challenges by saying that the formative assessment needs a clear purpose to begin with; it should be clear that formative assessments are to be devoid of evaluation (grading) and that they should take their multiple forms and not dissolve into mere quizzes and tests for there are many informal ways through which formative information could be gathered from students such as interviews, observations...

The second issue or formative assessment challenge that Cizek (2011) talks about is that of teacher preparation: it seems that teachers have usually shown lack of preparation for the execution of formative assessments and feedback even though they require careful and deliberate planning and research. It seems that there is a scarcity of systematic, detailed and practical information to address the challenge of how to design and implement

formative assessment in teaching to help improve student learning and motivation (Yin et al, 2008).

As for the issue of accommodations, it was suggested that proper adjustments are made so that all test takers including those who have special needs are able to demonstrate their true levels of knowledge, skills and abilities (Cizek, 2011). Nevertheless, there may be potential of reduced validity that threatens the intended inferences. And at last comes the question of documentation and whether formative assessments should be documented in a systematic way.

Reliability on the other hand seems to be another issue as well when it comes to formative assessment and their execution in the classroom; Brookhart (2010) found that the more task-specific and constrained the method, the more reliable teachers' judgments were. Nevertheless, although task-specific rubrics are easier to use, the instructional benefits of generic rubrics are worth the extra time it takes teachers learn to use them (and teach pupils to use them) in a reliable manner.

Formative Assessment in English Reading for Second Language Learners

Language is a complex process that acts as a mediator between an individual and everything that surrounds him/her (Jammal, 1999). As students mature, they become increasingly aware of and able to deal with different complex linguistic situations. The acquisition of language and the degree of comprehension develops through identifiable stages but with different rates with different students (Jammal, 1999). Reading is a "fluid" construct because a student moves from identifying discrete skills that are necessary for

oral usage and those associated with decoding the written word to comprehension. As for comprehension, readers are supposed to firstly read as literal comprehension, then move to more abstract, inferential and evaluative types of comprehension paralleling increasing levels of cognitive complexity (Alonzo, 2007).

In assessing reading comprehension ability in students who take English as a first foreign language, there are several aspects that need to be taken into consideration; these aspects range from phonemic awareness, word analysis and word recognition, fluency in word identification, knowledge of word meanings and background information to constructing meaning from print: each of these aspects are assessed in a different manner (Chall & Curtis, 1996). The assessment of these aspects lead to the making of links between the diagnosis made and the remediation or the steps that are to be taken in order to reach the specific instructional goals. It is stated that for lower levels (elementary) there are two different stages in which learning occurs: (a) learning associate combinations of letters with the spoken equivalents and (b) learning to use knowledge about letter-sound redundancies to gain accuracy and fluency in reading (Chall & Curtis, 1996).

In the theoretical and practical issues of assessment of reading and comprehension, word reading ability and reading comprehension are related in the sense that students who are able to read more advanced texts because of their superior word reading ability, do not only have a better grasp of the events that the text poses but also show better performance in answering comprehension questions (Cain & Oakhill, 2006). Thus, vocabulary can either be a hindrance or a source for success in reading comprehension.

In order to provide students with formative assessments in the area of reading in a second/foreign language, a teacher should be capable of creating a good formative learning environment that enhances student self-assessment and monitoring for self-regulation (Brookhart et al., 2010). This means that students should be seated in such a manner that they can interact freely with the teacher and the teacher is not only ready to respond to the students' needs but is also ready to learn and change along the way. The teacher should be able to change the strategies used in order to augment student achievement and performance. In the study of "Teacher inquiry into formative assessment practices in remedial learning classrooms" Brookhart et al (2010) mentions how "reading readiness" was perceived to be a function of intelligence and how this perspective has changed and evolved to show that the way in which teachers assess early literacy masks much information and that teachers should use a variety of assessments to collect multiple sources of information including observing children in authentic literacy contexts. In this study, the teachers used the following modified assessment practices: (1) letter cards, (2) customizing letter-naming drilling for students so any given drill included mostly letters known, and one or two unknown, to the particular student, (3) expanded monitoring and conferencing with students (4) progress cards listing student goals and noting when students worked on them (5) keeping records of feedback given to students during reading and giving student "goals" on the basis of these notes (6) intentional comments to students regarding specific positive accomplishments (7) observing the regular classroom teacher to see how formative assessment uses were similar to and different from their own work with students and (8) constructing an observational tool for formative assessment in the classroom. The teachers in this study reached common themes.

The teachers who conducted formative assessments discussed that these assessments caused an observable increase in student achievement, motivation, time on task and engagement. It seems that formative assessments collaborated not only in accomplishing learning outcomes but also motivational gains for the students. The teachers also experienced advances in their professional learning because they became more mindful and specific (seen in the notes that they kept about feedback and what went on in the classroom) with regard to formative assessment. The teachers intentionally designed their plans and monitored it along with their teaching. They also monitored the type of interaction and communication that went on in the classroom with their students. They all sought to involve student interaction and involvement; they perceived students as partners in the teaching process since the students themselves were monitoring their own progress as well (Brookhart et al., 2010). In this study, teachers came to believe that young students are able to regulate their reading once they are taught the skills of how to go about it. Formative assessments can thus be used as a hypothesis-generating and testing process, whereby what we observe students doing constitutes evidence for inferences about their competency that in turn directs instructional action as well as the collection and interpretation of further evidence (Bennett & Gitomer, 2009). The formative assessment should focus on an underlying competency model, in contrast to focusing it on classroom activities or assessment tasks (Bennett & Gitomer, 2009).

In “Diagnostic Achievement Testing in Reading” Chall and Curtis (1996) identify four components that engulf reading difficulties for children in the elementary grades: (a) lack of knowledge about the concepts and ideas in a specific subject area, (b) limited

understanding of the organizational aspects of a text that is related to the thesis statement, topic sentences, examples and details; (c) the difficulties in analyzing, summarizing, drawing inferences and predicting; (d) recognizing words of different types of difficulty and analyzing them. Vocabulary knowledge being an important component in comprehension, it is necessary for the teacher to find out whether the student's problem is particularly related to word recognition or word meaning that is hindering the student's ability to understand print; in other words (Chall & Curtis, 1996). For example, is the student able to define words of a certain level of difficulty but shows inability when such words are tested through reading? Teachers need to identify the source of the problem in order to come up with better strategies in dealing with them.

Chall and Curtis (1996) identify many factors that need to be tackled along with the ones that are directly reading related; some of these factors that are related to cognition : background knowledge and aspects that reflect the interaction of language/cognitive factors with reading skills (comprehension skills). Standardized tests can surely assess all these subcategories that pertain to reading, nevertheless, teachers should use informal ways of acquiring such information in order to have a comprehensive view of the child's ability level and especially for second language learners like in Lebanon because most, if not all, standardized tests are designed for native English speakers – there may be cultural bias that we need to be aware of.

Almost all schools around the world teach a second language and English is increasingly becoming that foreign second language. Reading and obtaining the key and basic skills in reading and comprehension are the tipping point from which students

advance and go forward in their studies of the foreign language. As mentioned earlier, it may not be easy for children to learn a completely new language and especially because they are not directly exposed to the language; nevertheless, technological advances are aiding children in the fact that they are being exposed indirectly to the language through internet usage, media and movies...

Therefore, helping learners, especially those who need extra help attain the basic skills in reading and comprehension becomes vital because research seems to have found that those who have difficulty in their primary years and are not aided, continue to carry that failure along the next years of the educational lives. Apparently, lacking basic skills in reading can have an indirect effect on the child's acquisition of later more-complex notions that are yet to come (Brookhart et al., 2010). Teachers of the foreign language need to determine each student's individual learning trajectory as regards of both acquisition of the second language and mastery of the academic content (Meskill, 2010). This continuous appraisal can be referred to as the formative assessment that is done by the teacher. These judgments help the teacher adjust, shape and guide subsequent instructional responses so that they meet the student's needs. Throughout the usage of formative assessments as learning events, the teacher's role is to push individual learners along their trajectories towards linguistic and academic competence (Meskill, 2010). This is somewhat challenging because the learners are not in a formal learning setting whereby they can interact with native speakers – here, it is the teacher's role to fill in the gaps and create different kinds of creative learning opportunities. This is done through the recognition of teachable moments and responsive, targeted pieces of instruction.

Effect of Formative Assessment on High and Low-achieving Students

It has been claimed in several research studies that the inclusion of formative assessment in daily instruction helps improve student motivation and performance and specifically the performance of low-achieving students. It seems that the “moments of contingency” that formative assessment and feedback provide is highly beneficial for learners who need help because these instances help tap the “zone of proximal development”.

In the study called “The Reading Response e-journal: An Alternative way to engage Low-achieving EFL students” by Lee (2012), the researcher used an e-journal that involves students in authentic reading and writing activities. The researcher saw that there was considerable improvement in the writing of low-achieving learners and it is through the writing that the usage of different comprehension strategies has been acquired by the students. Nevertheless, this remains an assumption because the researcher clarifies that the students’ acquisition of the reading comprehension strategies was solely an outcome of the implementation of the reading journal.

In another study performed by Phelan, Choi, Vendlinski, Baker & Herman (2011) where the implementation of formative assessment in mathematics was investigated in order to check for student improvement on assessment of key mathematical ideas in performance, it was found that students with higher scores on the pretest benefitted more from the intervention compared to those with lower scores on the pretest. The authors claim that this may have been the case because the time period that was assigned for the

intervention was rather short and that was mainly because the tight curriculum framework and timelines. The authors clarify that had they been allowed to induce their intervention for a longer period of time, lower performing students would also have benefitted. Moreover, it has been highlighted that there are many other aspects that need to be taken into consideration specifically, teacher proficiency in specific subject matter, being skilled in the use of formative assessments; these will allow teachers to help students in a more efficient manner.

There seems to be a lack in research studies that directly investigate the impact of formative assessment and feedback inclusion in daily instruction in improving student performance and specifically the performance of low-achieving students. The current study hopes to shed light on both of these aspects.

Tests and Means of Assessing Reading Comprehension

Measuring student ability was primarily done through the administration of teacher-prepared tests. Then, standardized tests came to the forefront because they exhibited sound psychometric measures. The high rates of validity and reliability presented in standardized tests, made them appealing and preferable. Despite their popularity, standardized tests also have certain flaws or problems that might be tagged along with their usage; for instance, they make the assumption that all students gain understanding through the same means and procedures. Nevertheless there have been certain ways through which reading comprehension has been tested. The main outcome of standardized tests is the final score that it produces. The authors (Guo, 2014) considered alternative means of assessment; these

means inform learning processes rather than learning result. These means of assessment are referred to as formative assessment. For instance, the authors used reading inventor that is basically made up of four categories: (a) important ideas, (b) inferences, (c) schemas and (d) strategies. It is claimed that standardized tests fail to recognize the ways through which students interact with reading in addition to unveiling the reasons behind certain types of mistakes. Assessment needs to be able to inform ways to improve teaching and learning and not simply indicate the level of the student's knowledge.

For a student to be able to comprehend what is read, he or she needs to have knowledge of syntax and grammar, have an appropriately developed spoken vocabulary, knowledge of text structures, and some relevant background knowledge and be able to use strategies such as inferring, creating mental imagery, self-monitoring of understanding, clarifying, summarizing and predicting (Oakley, 2011). In his study, Oakley (2011) talks about the usage of MARS (Metacognitive Awareness of Reading Strategies Inventory) which is a form of self-assessment; it helps students think about the areas in which they need improvement. This type of self-assessment also helps students get motivated because it gives them a sense of conventional assessment or ownership over their work.

Another means of assessing reading comprehension is the usage of RSAT (Reading Strategy Assessment Tool); it is a computer-based reading assessment that assesses reading comprehension and the use of reading strategies during reading. There are direct and indirect questions posed; the indirect questions are assessed based on the extent that they contain words associated with comprehension processes while the answers to the direct questions are compared to the ideal answer. RSAT does not only assess comprehension but

it also assesses and investigates the comprehension strategies used by the examinee (Magliano & Millis, 2010). The dimensions that the RSAT measures in reading comprehension allows a basis for giving feedback to students pertaining to the way they approach reading comprehension. This is an essential aspect that needs to be taken into consideration when choosing as assessment tool.

There certainly are numerous tests that measure reading comprehension; nevertheless, they all have areas in which they fall short and that is because reading comprehension emerges from a complex interaction that happens between the reader, the text and the task that is given (Magliano & Millis, 2010).

Formative Assessment in the Lebanese Context

In a study that discusses “Lebanese Elementary Mathematics Teachers' Conceptions of Assessment and of its Uses in the Classroom” (Abi Faraj, 2011), it has been reported that the Lebanese elementary in-service teachers usually adhere to tools that can be easily graded and not to tools that can be developed by the learner or those that require time in creating and following up. This is the case, in spite of their realization and recognition that the importance of formative assessment lies in providing precise information about the learners’ acquisition level and performance (Abi Faraj, 2011). It is of extreme importance to include the learners in the teaching learning process and actively engage them; nevertheless, the Lebanese elementary in-service teachers have been reported to shy away from using tools that require extensive time in the given study (Abi Faraj, 2011). The sample of teachers taken in the latter study reported the absence of including the learners in

self-assessment and providing the learners with the appropriate feedback. These being the most important aspects of formative assessment, it seems that in the Lebanese context, in-service Lebanese teachers have superficially adopted formative assessments. This means that the essential and core characteristics of formative assessment and feedback are neglected; the reasons lie in lack of time and unfeasibility of the essential aspects of formative assessment. This renders classroom assessment under the category of summative assessment and keeps teaching in the bounds of traditional methodologies and approaches.

Other studies pertaining to the implementation of formative assessments and formative feedback was not found in the Lebanese context.

As for the perspective of the Lebanese ministry of education on assessment, it is as follows. Lebanese students are required to take “Brevet” (at the end of grade 9) and “Baccalaureate” (at the end of grade 12) exams in all the subject matters that they take at school (Languages, sciences, mathematics...). Students are required to pass these exams before they can be admitted into high school and college respectively. A student gets a second chance if having failed the first round after about 2 months; in case the second trial was also unsuccessful, the student has to repeat the scholastic year and take the exam at the end of it in order to proceed to the next grade level. These tests are prepared by a committee of educators and corrected by teachers from different schools. The educators and teachers are required to sit for several meetings before test preparations and test corrections. After having finalized and prepared the tests, the teachers are not allowed to leave the place of preparation; they stay there overnight until the tests are taken by the learners.

In 2008, a committee of Belgian educators came to Lebanon in order to conduct workshops for the purpose of improving and developing new methods and procedures for school assessment and evaluation. The committee worked on the procedure of test preparation kit in different subject matters and grade levels. The participants from Lebanon were school principals and directors. They were asked to develop different types of situations (and testing kits) for different subjects of “Humanities”: Geography, French, Philosophy, Arabic, Mathematics, English. The tests were developed with the following blueprints: in each subject matter there are number of content-free competencies that engulf the abilities and skills that are required in order to attain it. Each competency has a number of parameters; these parameters helped the experts (educators) create situations for these competencies. These situations relate the competencies to the content of the given subject matter. As for the criteria of evaluating parameters, two main types were created: minimal and perfecting criteria. Each criterion has its own description and indicators. The difference between these types of criteria is that minimal criteria checks for “relevance of knowledge”, “proper use of the subject matter’s concepts and techniques” and “coherence” while perfecting criteria checks for “creativity”. Each of these elements found inside the “Minimal Criteria” and “Perfecting Criteria” can be scored according to a score scale that ranges as follows: maximal masters – minimal master – partial mastery and no mastery. Each element is placed in a table that includes the number of points that can be assigned to each descriptor and the number of indicators targeted and attained by the student. Another difference between “minimal criteria” and “perfecting criteria” is that the latter addresses higher order thinking skills and abilities; in other words, “perfecting criteria” measures students’ analytical and evaluative skills and not just their ability to comprehend, describe

للبحوث والإينماء: مشروع تطوير نظام التقييم المدرسي. لجنة التربية الوطنية (المركز التربوي and explain (والتشنة المدنية وفقاً للقرار رقم 649/2003). These workshops were supposed to be proceeded by the implementation of these assessment kits and evaluation forms; nevertheless, this was not possible.

The above literature shows that the adoption and proper integration of formative assessment and feedback is not only essential to the learning process of the students, but it is also of great prominence to the teacher and the teacher's preparation of classroom instruction, testing and measurement.

CHAPTER III

METHODOLOGY

The following section describes the research design, sampling, instruments and measures, administration procedures and plan for data analysis.

Research done on the implementation and effect of formative assessment and feedback on student achievement in different subject matters is sporadic in Lebanon; it has not been done before through an experimental administration in a school setting during an active scholastic year in the area of English reading comprehension. The current study unveils the effect of frequent embedded formative assessments on the achievement of grade four Lebanese students in English reading comprehension. Moreover, the comparison done between high-achieving students and low-achieving students helps show the effect of formative assessment and feedback on the two categories of students.

Research design

The purpose of this study is to explore the effect of embedded formative assessment feedback on student achievement in English reading comprehension in grade four Lebanese students as measured by TORC-4. Another main purpose includes the examination of the relative impact of formative assessment on high-achieving and low-achieving learners.

The first research question investigates the significant difference in achievement in English reading comprehension between a formative assessment group and another group using conventional assessment. The second question explores the degree of improvement or

change in academic achievement in English reading comprehension, if any, for two groups of learners: low achieving and high achieving students in the formative assessment group when compared to the low achieving and the high achieving students of the conventional assessment group.

Based on the research questions, a quasi-experimental design was used in the study of the two stated research questions. When random assignment is not possible, a quasi-experiment is a viable option, especially if the experimental and the control groups can be matched on critical variables that might affect post-test variables (Gall, Gall & Borg, 2010). It was primarily hypothesized that the inclusion of short frequent formative assessments is supposed to improve achievement of learners in the area of English reading – furthermore, this is supposed to prove true and more effective for low-achieving learners. To test this hypothesis, the experiment investigates the effect of formative assessment and feedback on students' achievement in English reading comprehension and accordingly inspects the difference in the effect of formative assessment strategies on low and high-achieving students for the formative assessment group and the conventional assessment group. For research question one, the independent variables are:

- Assessment method: formative and conventional assessment
- Students' achievement of both groups (formative assessment and conventional assessment groups) on the pretest of the overall score (Reading Comprehension Index) and the five subtest scores.

The dependent variable:

- Students' achievement of both groups (formative and conventional assessment groups) on the posttest of the overall score (Reading Comprehension Index) and the five subtest scores.

For the second research question, the independent variables are:

- Assessment method (Formative Assessment and Conventional Assessment)
- Student achievement level (low-achieving and high-achieving) for both groups (formative and conventional assessment groups) on the overall score (Reading Comprehension Index) and the five subtest scores on the pretest

The dependent Variable is:

- Student achievement (of high and low achievement sub-groups of the formative and the conventional assessment groups) in the overall score (Reading Comprehension Index) and the five subtest scores on the posttest.

Participants

The participants are students of a private school in Beirut: a member of Education School Network: Bechara Orthodox Annunciation College. The other members of Education School Network are: Saint Mary's Orthodox College and Ecole Des Trois Docteurs. The participants are grade four students of the two existing two sections.

Bechara Orthodox Annunciation College's main educational approach is "Holistic" education. Holistic education refers to educating singular students by taking into account the different attributes that make an individual in addition to the different aspects of life

that play a role in shaping children. Therefore, education in the given context does not only refer to the different subject matters that are taught in school; rather, it is the integration of psychological, emotional, ethical and moral aspects of life. Accordingly, integration becomes a focal feature in the given educational approach. Furthermore, integrating the goals and targets of the different subject matters along with the cross-curricular competencies and values have certainly formed a pivotal milestone in the educational approach that was adopted by BAC. Hence, students are given plenty of opportunities to learn new things and share experiences in novel and authentic settings. These authentic situations are given to the students through different activities that range from physical to (dance, basketball, football...) mental (chess, foreign languages...) activities. These activities are presented at end-of-year shows and contests in front of large audiences composed of parents and friends.

It is necessary to mention that discipline is a major umbrella under which the school conducts all of its activities and undertakings.

Mastery learning is the key educational principle in the process of teaching and learning. In grades 1 and 2, children have a set of reported skills that they need to attain; these skills are rated and reported to the parents. A bunch of these reported skills are preliminary for promotion to grade levels. Students with learning differences and difficulties are kept inside their classrooms because the school calls for inclusion of learner with different ability levels and learning difficulties. The special education department adjusts and amends curricular activities, assignments and assessments to help students who have learning difficulties attain the targeted curricular goals. It is only at times – when the

need arises – that the students are pulled out so that reinforcement is done on the skills that are the prerequisite of other abilities.

In principle, three assessment types are used in the process of evaluating teaching and learning: formative, summative and cumulative assessments. The formative assessments are usually done in the form of summative assessments i.e. paper-pencil tests because of lack of time and length and scope of the curriculum. Therefore, they almost never reach their potential in informing instruction or attending to the learners' needs individually through feedback; this is also due to the large number of learners in the classroom that ranges between 30 to 35 students per class. Furthermore, summative assessments are assigned a great deal of percentage in the process of evaluating students' performance. Cumulative assessments, on the other hand, are administered to get a general overview of the students' performance over the course of several units. Cumulative assessments are not given a high percentage at the end of the year and that is because the material that the students are tested on is vast and this induces a lot of stress which in turn affects performance and leads to somewhat unreliable results. It is necessary to mention that grades are not used to categorize the learners regardless of the type of assessment used. In other words, students are not ranked after any type of evaluation.

There are different subject matter areas that are taught in school; many of these subjects are given in English. Therefore mastering the language is of extreme significance. Arabic language is the mother language; English is given as a first foreign language and French is given as a second foreign language. Each of the language departments makes sure that the students are exposed to the literature of the given language; they use the

governmental curriculum and extend it – specifically, in grades 9 and 12, the school makes sure that the learners are taught the given themes for the official exams but it also makes sure that they go beyond the governmental program and are exposed to refined and sophisticated literature as well. English language and literature is taught through four main domains: (1) comprehension, (2) oral, (3) listening and (4) writing (grammar/vocabulary/essay writing). The students are exposed to different genres of literature taken from British and American Literature. The students are taught using McDougal (lower and upper elementary divisions) and Prentice Hall books (intermediate and secondary divisions) (latest editions). The learners are also given sciences: Biology, Chemistry and Physics in addition to Mathematics. American books are used in the process of teaching these subject matters except for grades 9 and 12 whereby the governmental books become mandatory. As for secondary students, the school offers three different types of programs: Sociology-Economics, General sciences and life science. Secondary students are promoted to the respective programs based on their academic scores in the required subject areas.

There are different central auxiliary departments in Eduvation School Network aside from the purely curricular ones. These departments are the curriculum development, testing and measurement, research and development, and training departments. All of these departments work in compliance and alignment with the mission of the school and the benefit of the learners.

The participants in the current study are 9 -10 years of age. Most of the participants reside in the Greater Beirut Area. The students have been learners of the school since

kindergarten and that is because the school rarely admits learners who have begun their education in different schools. The students' mother tongue is Arabic as mentioned afore. English is taken as a first foreign language and French is taken as a second foreign language starting grade one. The students have different ability levels; there are students who are very talented and students who need support and follow-up on a daily basis. The students come from different social and economic backgrounds. The performance of the students in the area of reading comprehension is related to the exposure they have had on different aspects of education and culture as a whole. For example if a child has always been read to, and has been given opportunities to read and to be exposed to culturally rich activities and experiences, it is more likely that this child will have richer diction; this in turn helps the student in reading fluency and comprehension (Kozulin & Garb, 2004). This exposure plays a major role in understanding unfamiliar vocabulary and making sense out of it using contextual clues. The participants' parents are mostly university graduates with at least Bachelor degrees.

Instruments and Measures

In order to measure gains in academic achievement in the area of English reading comprehension, a pretest was administered at the very beginning of the study. This pretest is a standardized English reading comprehension test that has proven to be a valid measure of reading comprehension for children between the ages of 7 to 12-year olds. TORC-4 (Test of Reading Comprehension) is a comprehensive diagnostic reading test that comprises of four general reading comprehension subtests: (a) identification of multiple vocabulary words that relate to the same concept, (b) the syntactic similarity subtest that

assesses understanding of meaningfully similar, but syntactically different sentence structures, (c) the paragraph reading subtest which requires the reading and understanding of short passages and (d) the sentence sequencing subtest which measures the ability to integrate sentences into meaningful paragraphs (Stetson, Stetson & Sattler, 2010).

Internal consistency of TORC-4 has been investigated on a normative sample using Cronbach's coefficient alpha at 11 age intervals using data from normative sample. The alphas ranged between .89 and .98 (Brown, Wiederholt & Hammil, 2009) which indicates good internal consistency and allows the usage of the test results with confidence. The standard error of measurement that estimates the amount of error in an individual's test score due to reliability issues is 1 for all subtests and 2 for Reading Comprehension Index. A test-retest was also carried out whereby the scaled scores and indexes for each testing were correlated on two administrations and the degree of similarity between the two test scores indicated the stability and reliability possessed by the test over time. The time interval between testing varied from one to two weeks. After testing, the scaled scores and indexes for each testing were correlated; the coefficients for the combined group (N=68) equal or exceed .80. The coefficient for Reading Comprehension Index exceeds .90 (Brown, Wiederholt & Hammil, 2009).

Two trained individuals scored a set of tests independently; the correlation between scores which is a relational index of agreement was studied. As a result, the reliability coefficients of scorer differences exceeded .90 in magnitude – which provides strong evidence supporting the test's inter-rater scorer reliability. This of course, indicates the availability of clear administration procedures, detailed guidelines governing scoring and

opportunities to practice scoring (Brown, Wiederholt & Hammil, 2009). The three types of reliability coefficients and sources of test error: time, content and scorer difference meet the standards of reliability thus suggesting that the test provides reliable results.

As for the validity of the test, the content of the subtests has been described and given a rationale. A conventional item analysis showed that the items provide evidence of content-description validity. As for criterion-predictive validity, TORC-4's relationship with other literacy tests has been studied; these tests are: Reading Observation Scale; Woodcock Johnson Tests of Achievement; Written Language Observation Scale and Test of Written Language - and the magnitude of these coefficients range between medium and large (Hopkins, 2002). In studying construct validity, the following were taken into consideration: relationship to age and this is mainly because the construct of reading comprehension is developmental. Relationship among the subtests was investigated, in addition to relationship with intelligence, difference among groups, factor analysis and item validity (Brown, Wiederholt & Hammil, 2009).

The Test of Reading Comprehension-4 has proven to be reliable over the course of piloting that it has been subjected to. Moreover, the content of the subtests that TORC-4 constitutes is aligned with the American curriculum that the participants of the proposed study are exposed to in their English classes (since kindergarten). The proven psychometric properties of TORC-4 increase the degree of confidence in the results of the current study.

Administration Procedures

This study is IRB compliant and went through IRB review. The IRB reviewed the proposal of the study in addition to the testing tool that was used: TORC-4.

Prior to collecting consent forms from the parents and the students of grade four of Beirut Annunciation Orthodox College, the researcher met with the principal of the school and explained about the current study. The principal was given detailed information about the study and what it entails. The meeting with the principal was conducted in the presence of the schools' academic director (upon the principal's request). The principal had questions pertaining to the type of the intervention, the follow-up and the way in which the intervention was going to be implemented. The principal and the director read the consent forms and asked questions about the teacher's role in the study and inquired about the exposure of the conventional assessment group to the assigned content of the curriculum during the time of the study. After answering the posed questions and attending to the parties' concerns, the principal requested two days to consider the proposed study. After having consented to allow grade four students to take part in the current study, the principal was asked to sign a written consent form. The researcher provided the principal with a copy of the signed consent form.

After having received permission from the school principal to proceed with the study, the researcher contacted the head of English academic department and provided her with detailed information about the study. The head of the academic department was given a soft and a hard copy of the two unit plans: the conventional assessment and the formative assessment groups' unit plans. Next, the researcher met with the grade four English teacher;

she was also given thorough information about the current study and her role in implementing the preplanned lesson plan. The teacher was also informed that she had to sit through three training sessions that would acquaint and enable her to use the prepared unit plans as intended. The teacher was informed that during the course of the study, her English reading comprehension sessions were going to be observed by the researcher and her assistant. It was clarified that the teacher was not to be assessed in any way during the course of the study. The teacher was not a direct participant in the current study. The teacher was informed that the researcher was available throughout the study to provide her guidance and help whenever needed. The teacher was also asked to sign a consent form; she was provided with a copy of her signed consent form.

As a next step, the researcher entered the formative assessment group's class in order to explain about the current study to the students. In the formative assessment group's class, the researcher took twenty minutes of an English session in order to explain the contents of the child assent forms. The researcher read the contents of the assent forms to the students and explained every sentence. The students were then given time to ask questions and have their concerns clarified during this explanatory session. The students asked about the time and date of the tests; whether the scores they receive will be in their grade books, and whether they will correct the tests with their teacher like they usually do after tests. After answering the students' questions, they were given assent forms to sign; they received a signed copy of the consent forms as well. The students were also given parental consent forms (in English and Arabic) that they had to give to their parents and have them signed in two days' time. The parents also received a copy of their signed

consent forms. Two students' parents (from the formative assessment group) refused that their children take part in the study. Therefore, these two students were excluded from the study; they did not sit for the pre and posttests. They stayed inside their classroom (formative assessment group) but the teacher did not involve them in the activities and assignments of formative assessment and feedback. These students were exposed to the content of the curriculum as those in the conventional assessment group. Likewise, two other students who have learning difficulties and are in "Intervention Programs" (by the Special Education Department of Education School Network) were excluded from the current study; the same was done in the conventional assessment group. All of the consent forms clearly state that giving permission or taking part in the current study is voluntary and that withdrawing at any time during the course of the study will not result in any type of penalty. The researcher also entered the conventional assessment group's classroom in order to inform the concerned students that they had to sit for both tests (pre and posttest). Both of these meetings with the students were done in the presence of the classroom teacher.

One teacher was in charge of both the formative assessment and the conventional assessment groups. This classroom teacher was given three training sessions. In the training sessions, the teacher was provided with all the different strategies (refer to appendices B and C for detailed information about the lesson plans) that will be eventually used in the implementing of the formative assessments along with the lessons. Nevertheless, the lesson plan was not too specific for it was meant to give room for instructions that can be altered and adjusted based on the educational needs of students – this is the purpose of having

formative assessments: modifying instruction based on the response that is obtained from students. As for the conventional assessment group, they were taught through a lesson plan that has general and broad-spectrum instructions devoid of the formative assessments. The conventional assessment and the formative assessment groups received the same number of sessions and same content; nevertheless, the incorporation of formative assessment and feedback into the daily instructions of the formative assessment group constituted the main difference. The conventional assessment group was exposed to the same number and types of activities except for those that make up the formative assessments themselves. Both groups received the same activities; the difference in this case lied in the way the questions were given and the feedback and follow-up that was done during and at the end of the every assessment.

Development of Unit Plans

The development of the unit plans was done by the researcher. The English reading comprehension books and practice books in addition to the grade 4's yearly plan was used in the preparation of the unit plans. The researcher had to make sure that the set content of the curriculum was completely covered during the time of the study.

During the eight weeks the students covered one unit (unit 3) with two main reading passages. The theme of the unit is "That's Amazing!". The students of grade four take seven and six sessions of English (as a first foreign language) in alternating weeks (depending whether the given week is odd or even). Five sessions of a given week were dedicated to reading comprehension. During these reading comprehension sessions the students were exposed to two fantastical and surrealistic texts; they answered questions, did

activities, and took part in analytical discussions and interpretations. The number of sessions during the time of the current study is forty.

The unit plan of the formative assessment group elaborated upon different types of formative assessments that were actually applied along with the daily lessons: short quizzes with different types of questions, summaries done periodically, one-minute essays, misconception checks that were done through discussions and debates, observations (checklists and anecdotal reports), and oral questioning. The unit plan provided to the teacher was implemented and minor alterations were done along the way after weekly meetings between the researcher and the teacher. The unit plan included instructional activities and directions for the teacher for each session. The unit plan gave the teacher basic background information about each and every lesson; moreover, it suggested different methods and ways through which the teacher can introduce the new lesson to the learners in addition to activities that can help delve more deeply into the lesson as they proceed. The unit plan contained basic information about the lessons' questions that can be asked during instruction in addition to an answer key that provided correct and suggested responses. The unit plan suggested planned instructions and feedback to the different ability levels of the formative assessment group. The formative evaluations were presented in the form of questioning, discussions, paper-pencil formative assessments, assignments and group work – all of which are explained and elaborated in the formative assessment lessons plan.

As for the unit plan of the conventional assessment group, which engulfs the same content and number of sessions, it lacked the stated formative assessments and their

corresponding feedback. For example, the conventional assessment group would receive corrections to their tests and quizzes with the regular instructions. In other words, the corrections to the tests, quizzes, or classroom activities were done for the whole group of students; there was no individualized feedback or follow-up in that matter. Therefore, the students of the conventional assessment group were exposed to the same selections and lessons; nevertheless, they were not be given formative assessments or feedback along the way.

The table below shows the difference in the treatment between the formative assessment and the conventional assessment groups; it displays the main similarities and differences:

Table 1

Differences and Similarities between the Unit Plans of the Formative Assessment and the Conventional Assessment Groups

Formative Assessment versus Conventional Assessment Groups	
Similarities	Number of session – number of lessons – activities – exercises – duration of lessons and sessions
Differences	Formative assessments (embedded in instruction) – formative feedback – activities and exercises (questions) that make up the formative assessment

Teacher Training

Prior to the first training session, the teacher was given a soft and a hard copy of the two unit plans that were prepared by the researcher. The researcher had already run the unit plans by the schools' head of academic department (of English) for approval as mentioned. Each training session was 60 minutes long. The teacher was asked to read the unit plans before attending the first training session. In this introductory session, the researcher presented the teacher with information about the different types of assessment in order to highlight and elaborate on the distinctive features between summative and formative assessments. This initial step was necessary because it helped locate misconceptions that the teacher may have had about the nature, purpose and practices of summative and formative assessments. The researcher, using a PowerPoint Presentation, gave information about the principles of formative assessment and feedback. The presentation also disclosed information pertaining to the usage of formative assessments in addition to the distinctive features that play a major role in student performance evaluation. The presentation took 40 minutes (out of the 60 minutes) of the first training session. After establishing the main doctrines of assessment, the teacher was given the time to ask questions about the aspects that she may found unclear in the unit plans (refer to the appendix A for further details). The teacher was informed that she needs to refrain from using the formative assessment and their corresponding teaching strategies in the conventional assessment group. The researcher and the teacher skimmed through the lesson plan during this session and elaborated on several examples along the way in order to clarify any ambiguity and assert the explanation that was initially done in the session. The researcher showed the teacher

how the unit plans contain instructions that allow her to probe on all different aspects of the lesson to be taught from the very beginning whereby the concepts are introduced afresh, midstream whereby certain steps of instruction are to be followed until the very end of a lesson.

In the second training session, the researcher went in depth into the detailed information found in the lesson plan and specifically about the way through which the teacher was supposed to go about in giving appropriate feedback to the students. The researcher presented the teacher with different scenarios and asked her to give examples of formative feedback (appendix A). The researcher and the teacher discussed the different options (in terms of the feedback that can be given to the students) found inside the lesson plan and suggested alternatives in the first 30 minutes of the second training session. In the second 30 minutes of the second training session, the researcher also referred to the questioning steps that can help students decipher whether they have properly grasped a concept or not and how the teacher needs to keep record of the students' responses in a student profile grade book. The questioning procedure makes way for metacognition whereby the student self-assesses and works accordingly; the different ways of questioning also help the teacher make on-the-spot evaluations and proceed accordingly. The researcher and the teacher located these evaluation forms in the unit plan.

In the third training session, the teacher was required to demonstrate teaching different parts of the unit plan as practice – this took 45 minutes of the training session. The researcher gave immediate feedback to the teacher in order to ensure the proper implementation of the different formative assessments and especially the corresponding

feedback that is based on the occurrences of a given session. The last 10 minutes of the last training session the researcher raised issues pertaining to the participation of the students and how to make sure that all partake in the prepared activities – this was specifically challenging because the formative assessment group contained 30 students. Nevertheless, proper planning and organization helped the teacher collect information about each student’s understanding and performance midstream. In order to ensure that the teacher got ample information about the students’ progress, she was required to do most of the activities and assignments on copybooks and practice books so that she can collect them. As for the oral activities and discussions, the researcher suggested adopting a recording book whereby the students’ responses are reported and remarks are placed for those who need extra reinforcement – this made the procedure of the follow-up easier. The session was concluded as such and the researcher started attending the formative assessment group’s sessions as soon as the implementation began.

The researcher met with the teacher once every week (eight times all in all aside from the training sessions) for 30 minutes in order to reflect and discuss classroom concerns; the researcher suggested different means of adopting various means to adjust classroom instruction, formative assessments and feedback in these meetings. During these meetings the teacher was asked to share insights, strategies and beliefs.

Pretest administration

The administration of the standardized test was done by the researcher in the presence of the classroom teacher. The teacher helped distribute and collect the question

and answer booklets; she helped the researcher in checking whether the students wrote their names in the proper provided spaces and if they were answering on the correct page. The test was administered to the two different sections (formative assessment and conventional assessment groups) separately.

Prior to the administration, the researcher had introduced herself to the students of both sections and thoroughly explained to them the purpose of the study and their role in it. The students sat for the test in their classrooms. Specific standardized directions were given to students when asked to complete each subtest.

The following subtests of the test were administered: (a)Relational Vocabulary, (b)Sentence Completion, (c)Paragraph Construction, (d)Text Comprehension and (e)Contextual Fluency. Each of the subtests' completion required 10 to 15 minutes for completion (as stated in the test's manual); that is almost 100 minutes roughly. Breaks were not given to the students (of both sections); all of the subtests were done and completed consecutively (Brown, Wiederholt & Hammil, 2009).

The participants are not used to taking standardized tests; the content and the format were not familiar to the student. The students are used to reading comprehension texts and answering different types of questions that are based on the text; nevertheless, they are not used to the other types of comprehension exercises that they were exposed to in the standardized test. Therefore, the researcher had to make sure that the students were able to complete the examples (that were provided in the test) before they complete each subtest. Each of the responses on the examples were checked before beginning with the subtest.

Moreover, notes were taken about those who seemed to experience undue stress or fatigue.

The test administration took about one hour and fifteen minutes.

Scoring the items was done using ceilings and entry points as provided in the manual (Brown, Wiederholt & Hammil, 2009). The information given by the pretest was recorded, scored and entered into the SPSS for statistical analysis. The interpretation of the scores was done using different types of scores such as subtest percentiles, standard scores, scaled scores for subtests and the reading comprehension index. The interpretation of the test results helped highlight (a) how well the student comprehends what is read, (b) how well does the student's general reading comprehension abilities compare with success in reading comprehension.

Classroom Observations

The researcher and an assistant observer observed all the English reading comprehension sessions given in the formative assessment and conventional assessment groups in order to ensure that the implementation of the lesson plans was done properly in the formative assessment group and that there were no carry over effects in the conventional assessment class. The researcher made sure that the formative evaluation strategies were not used in the conventional assessment classroom in any form or way. Accordingly, the researcher gave feedback to the teacher based on these observations that were carried out in every single comprehension session.

The observers checked the frequency of the formative assessments and the tools that were used in the process of gathering information about the students' ability, progress and accomplishment.

The second part of the observation rubric entailed details on formative feedback. The observers checked if the feedback that the teacher gave was timely, positive and accurate. The observers also checked the quality of the feedback that was given in addition to its emotional dynamics; feedback is supposed to be motivating and easily understood by the student.

The researcher and the assistant filled a checklist (found at the end of this section) during the observations that were done in both groups and meticulously documented the sessions during observations. The rationale behind hiring a second observer was to make sure that observations are done objectively. The researcher and the observer filled the observation rubrics.

The observer has taught English to elementary grade levels for over 5 years; she currently works in the department of test and measurement in Education Schools (and has been working in the department for the past 3 years). Her expertise is (in the department) is preparing summative assessments (grades 1 – 9) and participating in educational action research studies that are conducted for Education Schools. The researcher showed the test (TORC-4) to the assistant and discussed the essential administration methods prior to the administration. The assistant was given access to the manual of the test (TORC-4) so that she is well-informed about the contents and ways through which the subtests are tested. The

researcher and observer attended the sessions alternatingly; a total of forty sessions (eighty for both groups as a whole).

The total number of observed English reading comprehension sessions was 40 in each assessment group: the formative assessment and conventional assessment group. The researcher and the assistant observed and filled the checklist alternatingly during each observation; therefore, each individual attended 20 English reading comprehension sessions and filled 20 observation checklists.

The first part of the checklist contained aspects on the formative assessments that were done in the formative assessment group and their absence in the conventional assessment group. The results of the observation are summarized below:

Formative Assessment Group

The researcher and the assistant had the following responses on the different items of the classroom observation checklist. Tables 2 and 3 report results of the checklists that the researcher and the assistant filled during their classroom observation of reading comprehension in the formative and conventional assessment groups. The numbers within tables 17 and 18 represent the frequency of the times in which the elements were observed. The checklists were also accompanied with general and specific remarks that the observers noted during the classroom observations.

Table 2

Classroom Observation Checklist A: On Formative Assessment Implementation

A. Formative assessments are:	Yes	No	Needs Improvement
1. Implemented accurately (as planned)	R: 3 A: 7		R: 17 A: 13
2. Scored accurately based on preplanned rubric	R: 15 A: 12		R: 5 A: 8
3. Kept record of on progress cards	R: 5 A: 5	R: 5	R:10 A: 15
4. Duration does not exceed 20 minutes	R: 20 A: 20		
5. Done on a limited number of abilities	R: 20 A: 20		
6. Done at intervals of every lesson	R: 15 A: 17		R: 5 A: 3
7. The formative assessment tools are varied	R: 16 R: 18		R: 4 R: 2

R: researcher; A: assistant; The number refers to the frequency of the selected choice.

Table 3

Classroom Observation Checklist B: On Formative Feedback Implementation

B. Formative feedback is:	Yes	No	Needs Improvement
1. Timely	R: 16 A: 18		R: 4 A: 2
2. Accurate and easily understood by the learner	R: 15 A: 15		R: 5 R: 5
3. Interactive	R: 2 A: 5	R: 10 A: 5	R: 8 A: 10
4. Gives guidelines to improve work	R: 15 A: 18		R: 5 A: 2
5. Takes into account the emotional dynamics of feedback: motivating	R: 5 A: 10	R: 2	R: 13 A: 10

The following section reports the recordings of the observation checklists in addition to the extra remarks that the observers (the researcher and the assistant) had taken note of.

The rubrics recorded that in 30 out of the 40 sessions, the implementation of the formative assessments in the formative assessment group “Required improvement” as stated in the observation checklists. In the 10 other times (sessions), the researcher and the

assistant reported that the formative assessments and their instructions were “Accurately and properly implemented” as found in the observation checklists. The observation sheets of the formative assessment group clearly show that the implementation of the formative assessments that were prearranged in the unit plan were not always done in the intended and desired way. At times, the teacher would start with a task but would not be able to ensure every student’s participation and that was mainly because of classroom management problems that resulted in loss of time. The teacher tried to create a positive environment to help the students in the group work and discussions but these activities were not always dynamic because the teacher was unable to assess each student. The students were enthusiastic about taking part in the activities and formative assessments most of the time; nevertheless, the teacher was unable to transfer the planned instructions into her classroom meticulously whereby she could get information from the students, record their status and their progress, give feedback and proceed.

The second item of the observation checklists revealed that in 27 out of the 40 sessions, the teacher needed help in “keeping track of the students’ responses” and records. In the 13 other times the responses were accurately recorded. The teacher found it difficult to keep track of all the students’ responses at all times. Using the progress/profile record book and cards helped her, but it was not sufficient. The teacher was unable to keep track of each student in the formative assessments that were done; this was so mainly in discussions, small tasks, questioning, group work and minor classroom activities. Nevertheless, this was not true for the paper-pencil formative assessments. The teacher tried to keep records of the learners’ progress as much as possible. She had difficulty

keeping track of every student because she had to actively guide the students the whole time, taking responses and giving immediate feedback to the students.

The paper-pencil formative assessments were meticulously graded and scored and that is because they had been prepared ahead of time.

In the item of the duration of the formative assessments, it was observed that all the formative assessments that were done during the course of 40 English reading comprehension sessions required 20 minutes or less. The set duration of the formative assessments was respected; they did not exceed the 20 minutes – and this is true specifically for the paper-pencil formative quizzes. The teacher seemed to feel more at ease when administering formative assessments in form of tests and quizzes because other than the fact that they are used to doing so in the school, she was more able to take responses from all the students in a limited time. During activities and discussions, she was unable to ensure that every student was participating because of classroom management problems as mentioned afore.

Formative assessments are supposed to be done on small units of learning (unlike summative assessments) – they should not encompass large number of abilities, skills or content. In the current study, the formative assessments were done on a small number of abilities and skills; this has not usually been the case especially for the paper-pencil formative assessments whereby they were done right before summative assessments for collecting grades from the students. Of course, the load of the curriculum and the large number of students (up to 35 students per classroom) in the classrooms plays a big role.

Nevertheless, the teacher was able to tackle bits and small partitions of lessons in the formative assessment during the course of the study. The prearranged unit plan with meticulous instructions helped the teacher in assessing students more frequently and to keep track of their progress to a certain degree.

The next item in the observation checklist called for the implementation of formative assessments at every interval – every session. The observers reported that formative assessments were frequently done in every session even in the form of questioning. The checklists reported that 32 sessions out of the 40, formative assessments were done in a regular and consistent manner.

As for the item of using different formative assessment tools, the observations report that the teacher used limited types of formative assessment tools; (1) questioning, (2) discussion, (3) group activities and (4) paper-pencil formative assessments. The observation checklists reported that were times at which differential tools could have been used.

As for the checklist of feedback, the researcher and the assistant reported that in 30 out of the 40 sessions, feedback was timely, accurate and gave proper guidelines to the students. The observers reported that the feedback given to the students could have been improved in the aspects of interactivity and motivation. The teacher made sure that the students peer edited and were involved in self-assessments; in these types of tasks, the teacher gave immediate feedback in order to correct any misconceptions. The students

were involved in activities whereby they gave their responses and their peers had to give feedback and the teacher would meddle and give direction as they went along.

The main results of the observations highlight that the well accomplished areas in the formative assessment classroom were in: (a) scoring accurately, (b) keeping the duration of the formative assessments brief, (c) done at every interval of a lesson and on a specific number of abilities – not extended as should be done in summative assessments, (d) differential tools were varied; the teacher did not use one type of formative assessment; instead she varied in order to address students with different abilities. It is necessary to mention that the teacher gave immediate, timely and motivating feedback. The areas that required improvement were related to the implementation of the formative assessments, keeping record of the students' responses and making the feedback more interactive and collaborative.

Conventional Assessment Group

In the conventional assessment group, the assistant and the researcher observed all 40 English reading comprehension sessions as well; 20 sessions per observer. The checklist was supposed to show the absence of the formative assessments and the feedback in the conventional assessment group. The observations in the conventional assessment classroom were done in order to check if there was any carry over effect whereby the teacher implements the tactics and strategies that she was employing in the formative assessment group with the conventional assessment group. The conventional assessment group did not do the activities and the extra discussions that were set for the formative assessment group;

they only did the formative assessments that the teacher had already set for them with the head of the English academic department. The conventional assessment group did one paper-pencil formative assessment per domain: reading comprehension, writing (inclusive grammar and vocabulary). The teacher did not do any of the activities that she had not already planned for primarily. Nevertheless, these activities lacked assessment-scoring criteria. They were not consistently done at every interval. Moreover, the teacher did not keep track of the students' progress; instead, she went about it informally and spontaneously. The only tool that was used as form of formative assessment other than the paper-pencil tests was questioning. The teacher used questioning to introduce lessons and check the students' level of understanding and acquisition every now and then. Feedback was given to the students as a group; for example, after having done a paper-pencil formative assessment, the teacher corrected the papers on her own – did not always provide with the correct response on the student's mistakes – instead, she gave the correct responses to the students after she distributes the papers to them. She provides the students with the correct responses and the students copied them on their test sheets. There was no individualized feedback given. At times, students asked about their responses and inquired about the correct ones. Therefore, the feedback that the teacher gave to students was not timely – since she had to correct the papers and come back with the answers later, not specific to each student and did not provide individualized guidelines. All of these aspects make the feedback lack interactivity and motivation.

Implementation of Unit Plans

In the formative assessment group of lesson one of comprehension, the teacher commenced with an introductory activity that checks the prior level of the students' understanding on the targeted skills and abilities in the given area. The teacher began with a theme opener: she read aloud and wrote the theme title and quote on the board: "That's Amazing" and displayed photos on amazing things about the world. The teacher asked a list of questions that introduce the concepts that were going to be disclosed in the course of the first lesson "The Stranger". After answering the questions that pave the way for the lesson, the teacher explained to the students how they should take notes as they read or listen to a passage; the teacher modeled asking questions that help the students in taking note of the important events and incidents in a story.

After every part of "teaching" that was done, the teacher proceeded with a form of formative assessment that was immediately followed by feedback. The teacher made sure that all the students took part in the discussions that were done. She gave immediate feedback to the students who had grasped the concepts and gave correct answers and to those who had misconceptions. She tried to involve the students in the process of correcting the misconceptions that some had; she asked probing questions that help locate the "faulty" answers of their peers and suggest other possible correct answers. The researcher helped the teacher in recording responses that the students gave in oral recitations. The students were given the chance to peer edit and paper-pencil formative assessments.

The different types of formative assessments created an interactive environment in the formative assessment classroom. The writing session of the formative assessment group was also followed up by an exercise whereby the teacher presented the students with descriptive paragraphs and they were asked to locate the details and took notes of them. The students were asked to retell and paraphrase parts of the story that they read. In this classroom the illustrations were discussed; the students had to check and orally describe them: give their impressions, what they predicted and what they perceived as a whole. The teacher gave two questions that help learners identify why they were unable to understand: (1) what is happening and (2) why is it happening. Diagrams and concept maps were drawn in order to summarize and transmit the ideas in a more compact manner. The teacher made sure that the students pay attention to the details in a story: details helped readers understand characters and events, evaluate characters and picture the setting. The concept of details and taking notes were applied on all sections of the lesson; vocabulary and writing. Oral discussions were also based on noting details. The main focus at this point was distinguishing fantasy from reality. The text that was read in the first lesson was fantastical; it had unreal events and occurrences. Students were able to identify the genre of the text through the details. Comparing and contrasting was also done in this lesson.

In lesson two, the teacher also talked about fantasy and realism; she asked the students to give her examples. The students gave plenty of examples; they all got to participate at least once. When a student had a faulty example, the teacher asked another classmate to say why the answer is not correct. The students were asked to give justifications in that manner. They were asked to justify why certain answers would be classified as fantasy or realism. This helps learners work their analytical thinking skills. As

it was done in the first lesson, the teacher asked probing questions before reading the selection. The students were asked to locate the unusual events that took place and explain what made them unusual. The illustrations were also viewed and the teacher discussed them with the students. The responses of the students were recorded as they went along; this was done in almost every activity that was classified as a form of formative assessment.

In this lesson, the students got to learn about folktales and exaggeration. The students were given charts that they had to fill in groups: the chart had partitions related to the plot, setting and characters. The students then discussed their answers and said why the aspects they took note of were unrealistic. A group representative was chosen to deliberate on the results. During the group activity, the teacher went about the students and checked if they had questions. She asked questions in order to ensure the participation of all students within their groups. The teacher also modelled to the students how a reader can evaluate a story through pointing at its weaknesses and strengths. The students were asked to write complete and meaningful sentences that express fantasy and realism using the key words that they learned in their lesson of vocabulary. In a discussion session, the teacher wrote on the board four questions entitled: "Literature discussion". In this session, the students were distributed into groups and given 15 minutes in order to discuss them together. Then, the teacher asked those questions and checked the students' opinion regarding the posed questions. The teacher made sure that notes were taken about the responses of all the students. During the discussion, the teacher asked the students to write their responses on paper and then each person got to pick one and say whether it is correct or wrong and give

justification. The teacher reminded the students that they can better see the relationship between two or more events, characters or details by comparing and contrasting them. The teacher explained that comparing involves finding similarities, and contrasting involves finding differences. She then drew a Venn diagram on the board in order to help the students organize likeness and differences; the students came to the board and filled it. The rest of the students who did not get a chance to write on the board, corrected the responses that their peers had written on the board. The teacher made sure that she gave back immediate feedback in order to help mend any misconceptions. Using a Venn diagram, the teacher modelled comparing and contrasting details from the popcorn and the oatmeal scenes. In pairs, students were asked to make another Venn diagram to compare and contrast how the heat wave affects two kinds of animals. The teacher discussed the answers that the students had written and keep record in the progress cards in order to check if any of the learners need attending to in the given matter.

In a paper-pencil formative assessment, the students were asked to discuss how the story might be similar and different if the plot was changed so that a blizzard hit the farm? Then the students were asked to identify the problem and the solution of the plot.

The teacher explained the illustrations found in the lesson of “Heat Wave!”; she pointed out at the somewhat surrealistic style of art. She explained that in a dreamlike style, everyday objects may be exaggerated in size and shape or placed in unlikely situations. Because tall tales include exaggerations, surrealistic illustrations can enhance the humor and the over-the-top story events. The teacher modelled finding some surrealistic elements of art. Then, she divided the class into small groups and assigned each group a two-page

illustration. She asked the students to locate surrealistic elements such as unusual size, shape or placement of objects and characters. The teacher discussed the groups' findings in class and asked the students to comment on how some surrealistic elements help make the story clearer or funnier. She gave immediate feedback to the students and identify any misconceptions at this point in the story.

The teacher had to do follow-up on every student in every task and activity that was done; this was time consuming and resulted in taking three more 45-minute sessions than the conventional assessment classroom.

In the conventional assessment group, the teacher covered the same material that was done in the formative assessment group; nevertheless, they were not given the same frequency and type of formative assessments. In the conventional assessment classroom, the teacher did not keep record of the students' responses. They did one paper-pencil formative assessment per domain (comprehension – vocabulary and grammar: in writing and oral) in the current unit (as it is usually done). They were corrected by the teacher and then distributed to the students whereby they teacher provided the students with the correct responses. The correction of the paper-pencil formative assessments was done within five working days as it is usually done. In the conventional assessment classroom, the main activities that were done were the introductory ones; the introductory questions that the teacher asked probing questions that would pave the way for the selection that was going to be read. As it was done in the formative assessment group, the teacher used questions in order to explain the concept of noting details to the students – this being one of the main skills in their unit. The students answered these questions orally and the teacher provided

confirmation or explanations. The illustrations that are found inside every lesson of the current unit were also discussed and explained. In this classroom, the teacher did not keep a student profile book in order to record student's responses on the required skills and abilities. The profile book in the formative assessment group contained information about the learners' progress in the different abilities and skills and their progress compared to the objectives that they are required to reach.

The teacher explained the relationship between cause-effect; she disclosed the different questions that can help the students locate a cause and its effect. The students answered most of the literary analysis questions of the selections and then the teacher provided them with the correct responses. The teacher then explained the difference between fantasy and realism – the students were asked to give examples. They discussed the elements that would make these two “genres” different. In order to teach the students how to draw conclusions, the teacher drew equations of ideas and showed how certain events occurring after one another would mean a certain occurrence. The students were asked to draw similar equations on different parts of the selection. In the second selection, the teacher, in an attempt to connect old ideas to new ones, reviewed the difference between fantasy and realism. Then, selected students read parts of the story. They answer the literary analysis questions after they were done. Details of plot, characterization and setting were discussed in form of a classroom discussion.

Below is a matrix (table 4) representing the duration of each selection, the name of the selections that were covered during the study, the focus of the literary elements, the vocabulary keywords and the types of formative assessments that were done in the

formative assessment group. The conventional assessment group was exposed to all of the above mentioned elements except for the formative assessments and feedback.

Table 4

Unit Plan Matrix for the Formative Assessment Group

Unit Three Theme: That's Amazing!				
Duration	Selections	Literary elements	Vocabulary	FAs/SAs
Weeks 5 -8	The Stranger	Cause and effect Drawing conclusions Noting details Problem solving Making inferences Sequence of events Making judgments Compare and contrast Story structure	Autumn- draft- etched- frost- mercury- peculiar- thermometer- timid	Listening (questioning) Group work Oral discussion / participation Taking notes Assignment Paper-pencil FAs
Weeks 9 – 12	Heat Wave	Fantasy and realism Cause and effect Drawing conclusions Noting details Problem solving Making inferences Sequence of events Making judgments Compare and contr.	Affected- horizon- miscalculated- singe- temperature- weather vane	Listening (questioning) Group work Oral discussion / participation Taking notes Assignment Paper-pencil FAs Summative Assessment

After having finished the study in eight weeks, the students were given the same standardized test (TORC-4) under the same conditions as those of the pretest – this includes the location of the test’s administration, the duration given to each subtest and the time of the day during which the test was administered.

Data Analysis Procedure

Quantitative methods were used in order to analyze the data that was collected from the pre and posttest. The results of the pre and the posttest (TORC-4) were scored based on the scoring guide given in the manual of the standardized test. Descriptive statistics for the conventional assessment and formative assessment groups were calculated for the overall results (Reading comprehension Index and Scaled scores of subtests) of the pre and the posttest.

Based on the first research question “Does the incorporation of frequent formative assessments significantly improve achievement in English reading comprehension when compared to the practice of conventional assessment?” the difference in performance between the formative assessment and the conventional assessment groups was calculated using ANCOVA and effect size. Descriptive statistics was calculated for the formative and the conventional assessment groups on the scores of the pre and the posttests. ANCOVA was calculated for the reading comprehension index, which is the composite of the scaled scores from the individual subtests (TORC-4). The rationale behind using ANCOVA is because it helps increase the precision of comparisons between two groups – in this case, the conventional assessment and the formative assessment groups by accounting to

variation on important predictive variables in addition to adjusting comparisons between the conventional assessment and the formative assessment groups for imbalances that might be caused on important predictive variables between these groups. ANCOVA accounts for any pretest (covariate) differences between the two groups: formative and conventional assessment groups. The dependent variables are the posttest scores of the overall the Reading Comprehension Index and the five subtest scores, the fixed factor is the “treatment/method” (formative and conventional assessments) and the covariate is the pretest scores for the overall reading comprehension index score and the subtests scores. Moreover, the effect size presented as the Partial Eta Squared quantified the size of the difference between the formative assessment and the conventional assessment groups and helped measure the effectiveness of the intervention done (Triola, 2011).

As for the second research question, “Do the types of assessment impact high and low achieving students differently in English reading comprehension?”, the formative assessment and the conventional assessment groups were divided into three sections based on results of the pretest. Descriptive statistics were reported for the high achieving and low-achieving categories of the formative assessment and the conventional assessment groups on the pre and the posttests. ANCOVA on the overall results (Reading comprehension Index) and the scaled scores of the subtests for the (a) high achieving of the formative and the conventional assessment groups (b) low achieving of the formative and the conventional assessment groups were calculated. The students of the formative assessment and the conventional assessment groups were divided into upper and lower thirds by dividing the total number of students ($N = 25$) in each group into three based on the scores

they attained in the pretest. The highest 8 scores of the formative assessment group formed the upper third for the formative assessment group and the highest 8 scores of the conventional assessment group formed the upper third subgroup of the conventional assessment group. The lowest 8 scores of the formative assessment group formed the lower third for the formative assessment group and the lowest 8 scores of the conventional assessment group formed the lower third subgroup of the conventional assessment group. This division resulted in eight students in each third (subgroup) and brought about two categories in the formative assessment group and two categories in the conventional assessment groups: upper Third (N = 8) and lower Third (N = 8). The dependent variable was the posttest results of the “Reading Comprehension Index” scores and the scores of the five subtests, the fixed factor is the “treatment/method” and the covariate is the pretest results for the overall and the subtests scores. The effect size as measured by the Partial Eta Squared, quantified the difference between the upper and lower thirds of the formative assessment and the conventional assessment groups; accordingly, this helped measure the effectiveness of the intervention done (Triola, 2011). The effect size of the significance values were interpreted using the Partial Eta Squared interpretation guidelines:

$$d = \frac{\bar{x}_1 - \bar{x}_2}{s_{pooled}}$$

where

$$s_{pooled} = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

Table 5

Partial Eta Squared Interpretation Guide and Description (Triola, 2011)

Partial Eta Squared (effect Size)	Description
0.01	Small
0.06	Moderate
0.14	Large

The results of the different formative assessments or the summative assessments that were done during the period of the study were not be taken into account in the analysis of the data as mentioned in the proposal of the study.

CHAPTER IV

RESULTS

The main purpose of this study was to investigate the effect of embedded formative assessment on student reading comprehension achievement on one hand, and difference in the effect it has on lower achieving students on the other. It was primarily hypothesized that students who are taught with the incorporation of formative assessments and feedback within instruction, these students will achieve better than those who are taught using conventional means of assessment – one of which is the use of summative assessments solely. Furthermore, it was hypothesized that formative assessment and feedback is specifically effective and helps improve the achievement of lower achieving students. Data was collected from the administration of a standardized test: TORC-4 to the formative assessment and the conventional assessment groups pre and post the treatment. The upper and lower third groups of the formative and conventional assessment groups were divided based on the results of the pretest on the standardized test: TORC-4. The following chapter reports the results of the data derived from the tests' administration to the two groups of assessment and their corresponding upper and lower thirds. The data analysis was done on the "Reading Comprehension Index" and scaled scores of the subtests of the pre and posttest of TORC-4 that was administered to the formative assessment and the conventional assessment groups.

The results of the observation checklists that were filled by the observer and the assistant in the formative assessment group and the conventional assessment group are also

reported in this chapter. The observers have meticulously recorded the sessions. This section complements the two research questions and provides qualitative data pertaining to the effect of the treatment across the different groups (formative and conventional assessment groups) and categories (the upper third and lower third) and within each category of the given groups.

Primarily there were 30 students in the formative assessment group and 29 in the conventional assessment group. Two students from the formative assessment group were removed from the study because they were in the special education intervention program and two others' parents did not consent that they take part in the current study. Moreover, one learner had left school because her parents moved to another country. As for the conventional assessment group, four learners were removed from the study because they were also in the special education intervention program. This left us with 25 students in each group.

Results of Pre and Posttest of the Formative and Conventional Assessment Groups

In order to answer the first research question and evaluate the effect of formative assessment on the students of formative assessment group, descriptive statistics and (Univariate) analysis of covariance (ANCOVA) for the overall scores (Reading Comprehension Index) and the scores of the five subtests of TORC-4 (Relational Vocabulary, Sentence Completion, Paragraph Construction, Text Comprehension and Contextual Fluency) of the pre and posttests for the formative and conventional assessment groups were calculated. Table 6 reports the descriptive statistics:

Table 6

Descriptive Statistics on the Pre and the Posttest of the Formative Assessment and the Conventional Assessment Groups

	Formative Assessment Group				Conventional Assessment Group			
	Pretest		Posttest		Pretest		Posttest	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RCI	99.84	11.87	104.88	7.82	104.48	10.90	99.12	13.464
RV	8.32	2.34	8.84	1.28	8.80	1.73	8.80	2.58
SC	8.24	2.45	9.00	2.12	8.56	2.46	8.16	2.19
PC	7.16	1.70	8.24	1.66	9.08	2.01	7.24	2.48
TC	8.64	2.15	9.64	2.82	10.04	2.01	8.64	1.89
CF	17.72	3.93	18.40	1.50	17.04	2.99	16.72	3.10

SD: Standard Deviation; RCI: Reading Comprehension Index; RV: Relational Vocabulary; SC: Sentence Completion; PC: Paragraph Construction; TC: Text Comprehension; CF: Contextual Fluency

Table 6 reveals the descriptive statistics on the overall scores and the scores of the five subtests of TORC-4 of the formative and conventional assessment groups in the pre and posttests. Descriptive statistics reveal that the means in the posttests of the formative assessment group in the overall and the subtest scores have generally improved over the means of the pretests. It is also worth mentioning that the means of the conventional assessment group were initially higher than those of the formative assessment group, however, they regressed in the overall and the subtests post scores. The significance of the difference in the means of the formative assessment and the conventional assessment groups was investigated through (Univariate) analysis of covariance as reported in Table 7 below.

Table 7

Analysis of Covariance on Posttest of Formative and Conventional Assessment Groups on Overall Scores and Scores of the Five Subtests

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reading Comprehension Index						
treatment	335.348	1	335.348	2.739	.105	.055
Error	5755.282	47	122.453			
Relational Vocabulary						
treatment	.007	1	.007	.002	.967	.000
Error	199.138	47	4.237			
Sentence Completion						
treatment	7.923	1	7.923	1.706	.198	.035
Error	218.330	47	4.645			
Paragraph Construction						
treatment	11.575	1	11.575	2.533	.118	.051
Error	214.778	47	4.570			
Text Comprehension						
treatment	13.406	1	13.406	2.278	.138	.046
Error	276.565	47	5.884			
Total	4467.000	50				
Contextual Fluency						
treatment	39.461	1	39.461	6.845	.012*	.127
Error	270.933	47	5.765			

*sig. < 0.05

ANCOVA was calculated for the scores of the formative and conventional assessment groups on the pre and posttests in order to investigate the effect of the intervention on the students of the formative assessment group in table 7. The results reveal that there is no significant difference in the scores of the formative assessment group in the posttest from that of the conventional assessment group in the overall scores (Reading Comprehension Index) and on the four subtests of TORC-4 except for the subtest of “Contextual Fluency”. ANCOVA results reveal that the formative assessment group did significantly better than the conventional assessment group (in the posttest while controlling for the pretest) in the subtest of contextual fluency since $p = 0.012 < 0.05$ with a partial Partial Eta Squared of 0.127 which is a large effect size.

Impact of Type of Assessment on High and Low Achievement level

In order to investigate the significant difference in the impact of the type of assessment in English reading comprehension on the two achievement levels (higher and lower) for research question two, if any, descriptive statistics and (Univariate) analysis of covariance were calculated for the upper and lower thirds of the formative assessment and conventional assessment groups.

The students of the formative assessment and the conventional assessment groups were divided into upper and lower thirds by dividing the total number of students ($N = 25$) in each group into three based on the scores they attained in the pretest. The highest 8 scores of the formative assessment group formed the upper third for the formative

assessment group and the highest 8 scores of the conventional assessment group formed the upper third subgroup of the conventional assessment group. The lowest 8 scores of the formative assessment group formed the lower third for the formative assessment group and the lowest 8 scores of the conventional assessment group formed the lower third subgroup of the conventional assessment group. This division resulted in eight students in each third (subgroup) and brought about two categories in the formative assessment group and two categories in the conventional assessment groups: upper Third (N = 8) and lower Third (N = 8).

ANCOVA on Upper Third of Formative Assessment and Conventional Assessment Groups in the Pre and Posttest

In the following section, the results of the pre and posttest of the upper third of the formative assessment and the conventional assessment groups were studied. Table 8 below exhibits the descriptive statistics for the upper third students of the pre and the posttests of the formative and conventional assessment groups in the overall and subtest scores. Descriptive statistics reveal that there is a difference in the means in the posttests between the formative assessment and the conventional assessment groups. The significance of the difference between the means of (of the overall and subtest scores) for the upper third students of the formative assessment group in the pre and the posttest is investigated using (Univariate) analysis of covariance in the section below.

Table 8

Descriptive Statistics for the Upper Third Formative Assessment and Conventional Assessment Groups in the overall and subtest scores of the pre and posttest

	Formative Assessment Group				Conventional Assessment Group			
	Pretest		Posttest		Pretest		Posttest	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RCI	111.13	2.80	114.50	3.29	114.50	3.42	114.00	4.62
RV	10.13	1.12	10.00	1.06	9.87	1.12	10.75	2.60
SC	10.13	1.88	11.00	1.60	10.50	1.51	10.25	1.16
PC	7.87	1.55	10.13	1.45	10.13	1.72	9.38	1.59
TC	10.25	1.98	10.63	0.74	11.63	1.30	10.38	0.51
CF	20.00	0.00	19.13	1.12	18.75	2.76	19.75	0.436

RCI: Reading Comprehension Index; RV: Relational Vocabulary; SC: Sentence Completion; PC: Paragraph Construction; TC: Text Comprehension; CF: Contextual Fluency

Table 9

Analysis of Covariance of the Upper Third of the Formative Assessment and Conventional Assessment Groups on the Overall and Subtest Scores of the Pre and the Posttest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reading Comprehension Index						
Method	2.207	1	2.207	.128	.726	.010
Error	224.464	13	17.266			
Relational Vocabulary						
Method	1.879	1	1.879	.448	.515	.033
Error	54.482	13	4.191			
Sentence Completion						
Method	3.109	1	3.109	1.837	.198	.124
Error	21.995	13	1.692			
Paragraph Construction						
Method	2.779	1	2.779	1.124	.308	.080
Error	32.152	13	2.473			
Text Comprehension						
Method	1.331	1	1.331	6.299	.026*	.326
Error	2.746	13	.211			
Contextual Fluency						
Method	1.347	1	1.347	1.689	.216	.115
Error	10.370	13	.798			

Sig < 0.05*

Table 9 displays the results of the (Univariate) analysis of covariance on the scores of the upper third students of the formative assessment and conventional assessment groups in the pre and the posttests. The means of the upper third of the formative assessment group are higher than those of the conventional assessment group in the overall scores and the scores of the subtests. This difference proved to be statistically insignificant in the overall scores and the subtest scores except for the subtest of “Text Comprehension” whereby the significance level $p = 0.026 < 0.05$ with a Partial Eta Squared of 0.3 (large effect size according to the Partial eta Squared interpretation guidelines). This significance level means that the upper third students of the formative assessment group have not done significantly better in the posttest when compared to the performance of the upper third students of the conventional assessment group except in one subtest.

ANCOVA on the Lower Third of the Formative Assessment and Conventional Assessment Groups in the Pre and Posttest

Table 10 displays the descriptive statistics of the lower third formative assessment group in the pre and the posttest (overall and subtest scores). Descriptive statistics reveal that there is considerable difference in the posttest means of the formative and conventional assessment groups; the mean of the formative assessment group in overall and subtest scores is higher than those of the conventional assessment group. The significance of the difference between the mean in the pre and the posttest are studied through (Univariate) analysis of covariance in the section below.

Table 10

Descriptive Statistics for the Lower Third Formative Assessment and Conventional Assessment Groups in the overall and subtest scores of the pre and posttest

	Formative Assessment Group				Conventional Assessment Group			
	Pretest		Posttest		Pretest		Posttest	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
RCI	85.12	7.14	97.13	0.83	93.38	10.99	83.63	6.43
RV	6.13	2.58	8.25	0.88	7.63	2.32	6.25	1.83
SC	6.13	1.64	6.75	1.28	6.13	2.23	5.75	0.88
PC	6.38	1.68	7.13	0.64	8.13	1.55	4.63	1.59
TC	7.00	1.77	7.88	1.80	8.50	2.39	6.88	1.80
CF	13.50	4.69	18.25	1.03	15.00	3.16	14.62	3.20

RCI: Reading Comprehension Index; RV: Relational Vocabulary; SC: Sentence Completion; PC: Paragraph Construction; TC: Text Comprehension; CF: Contextual Fluency

Table 11

Analysis of Covariance of the Lower Third of the Formative Assessment and the Conventional Assessment Groups on the Overall and Subtest Scores of the Pre and the Posttest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Reading Comprehension Index						
treatment	517.381	1	517.381	23.999	.000*	.649
Error	280.263	13	21.559			
Relational Vocabulary						
treatment	15.906	1	15.906	7.219	.019*	.357
Error	28.643	13	2.203			
Sentence Completion						
treatment	4.000	1	4.000	3.479	.085	.211
Error	14.949	13	1.150			
Paragraph Construction						
treatment	16.668	1	16.668	10.568	.006*	.448
Error	20.505	13	1.577			
Text Comprehension						
treatment	6.147	1	6.147	1.867	.195	.126
Error	42.810	13	3.293			
Contextual Fluency						
treatment	52.563	1	52.563	9.271	.009*	.398
Error	79.375	14	5.670			

Sig < 0.05*

Table 11 displays the results of the univariate analysis of covariance of the scores of the lower third students of the formative assessment and the conventional assessment groups. The means of the formative assessment group are higher than the means of the conventional assessment group in the overall scores and the subtest scores. This difference proved to be statistically significant in the overall test score and the subtests of “Relational Vocabulary”, “Paragraph Construction” and “Contextual Fluency”. In other words, the formative assessment group students have done significantly better in the overall posttest than the students of the conventional assessment group since the significance value $p = 0.000 < 0.05$ with a partial eta squared of 0.649 (large effect size). This significant difference is also revealed in the subtests of “Relational Vocabulary” with a significance level $p = 0.019 < 0.05$ with a Partial Eta Squared of 0.3 (large effect size), the subtest of “Paragraph Construction” whose significance level $p = 0.006 < 0.05$ with a Partial Eta Squared of 0.4 (large effect size) and the subtest of “Contextual Fluency” whose significance level $p = 0.009 < 0.05$ with a partial Eta Squared of 0.3 (large effect size). This validates the hypothesis that there is difference in the achievement of lower achieving students who were exposed to formative assessment and feedback.

Summary

A brief summary of the findings indicate that the formative assessment group did not show improvement when compared to the conventional assessment group after the administration of the treatment – except in one subtest.

The upper group of the formative assessment group did not show improvement when compared to the upper group of the conventional assessment group in the overall score; it did show significant improvement in one subtest (Text Comprehension).

The lower group of the formative assessment group showed significant improvement when compared to the lower third of the conventional assessment group in the overall score and several subtests.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate the effect of formative assessment and feedback on the achievement of grade 4 students in the area of reading comprehension. This study also inspected the difference in the effect of formative assessment and feedback on the achievement of between the higher and lower achieving students of the formative assessment and the conventional assessment groups.

To investigate research questions, two sections of grade 4 students (from a private school in Beirut) who take English as a first foreign language were the subjects of the current study. Each section contained 25 students. . The sections were randomly assigned to formative and conventional assessment groups. The students of both groups sat for the pre and post standardized test: TORC-4. The formative assessment group was exposed to the treatment of embedded formative assessments and feedback while the conventional assessment group was taught using the conventional means of assessment that did not include the formative assessments and feedback— except for the ones that were primarily prepared as part of the class’s unit plan. The formative assessments that were already set by the teacher (and were utilized in the conventional assessment group) were paper-pencil tests they were to be done one per domain and their correction was done without personalized feedback. Therefore, the formative assessments of the conventional assessment group were different from those of the formative assessment group not only in terms of their nature and variety (activities and the feedback) but also in terms of their frequency and means of

implementation. It is necessary to emphasize that both groups were given the same content of the curriculum that was primarily set by the school. The period of the treatment was eight weeks. After the treatment, the students sat for the posttest: TORC-4.

The results chapter reported the findings derived from the administration of the standardized test pre and post the intervention. As an outcome, two hypotheses were answered:

1. The formative assessment group that is exposed to formative assessment and feedback will score higher in the posttest of reading comprehension achievement compared to the conventional assessment group.
2. Low achieving students of the formative assessment group will show higher improvement when compared to the lower achieving group of the conventional assessment group and the higher achieving students of the formative assessment group on the standardized test TORC-4.

The data derived from the standardized tests gave detailed information pertaining to the different aspects that make up reading comprehension: (a) Relational Vocabulary, (b) Sentence Completion, (c) Paragraph Construction, (d) Text Comprehension and (e) Contextual Fluency in addition to the overall reading comprehension index. The nature of the subtests and the requirements they had for the students to complete them presented valid means for interpretation of the quantitative data (pretest and posttest scores) along with the data that was provided from the classroom observations. Every session was observed by either the researcher or assistant observer. Therefore, the interpretation of the results will be presented according to the two research questions and posed hypotheses.

Effect of Formative Assessment and Feedback on Formative Assessment and Conventional Assessment Groups

The Univariate analysis of covariance that was done on the pre and posttest of the formative and conventional assessment groups revealed that there was no significant improvement from the pretest to the posttest when comparing the formative assessment group's scores to those of the conventional assessment group's scores. In other words, the formative assessment group's students did not significantly improve more than the students of the conventional assessment group from the pretest to the posttest even though the means of the formative assessment group were higher than those of the conventional assessment group. The absence of improvement was in the overall test (TORC-4) and four out of the five subtests; the formative assessment group statistically improved in the subtest of "Contextual Fluency" as mentioned above.

The results show that the treatment that was given to the formative assessment group was significantly effective specifically in the area of "Contextual Fluency" whereby the students had to read words that had been placed next to one another without any space between a word and another and had to divide these word with a dash or a slash. The students of the formative assessment group did better in this subtest than the students of the conventional assessment group. The improvement in the given subtest may have been due to the activities that the students had done during the time of the treatment. The students' exposure to the activities whereby they had to re-read passages and paragraphs (same as those that were read by the conventional assessment group) in order to discuss, answer questions, or participate in group work should have contributed to the students' ability in

decoding in a faster manner. The activities that embedded the formative assessments could have paved the way for the increase in the performance of the formative assessment group's students in the subtest of "Contextual Fluency".

The absence of the overall improvement of the formative assessment group in the posttest when compared to the performance of the conventional assessment group may be due to many factors that created impediments for the potential effect of formative assessments and feedback on students' achievement in the area of reading comprehension. For instance, classroom observation rubrics reported that the teacher had classroom management problems and that may have gotten in the way for the proper implementation of the formative assessments. The teacher was not always able to go through the activities that had been planned in a systematic manner. The observation rubrics reported that the implementation required improvement in the level of enacting parts related to the questioning and discussion. Surely, this requirement for improvement was applicable to all the formative assessments that were done; many formative assessments were done and completed as planned. The implementation of the formative assessment was not done as intended for the whole class because the teacher took time to attend to the needs of the students who required constant follow-up and feedback. This may have contributed to the implementation of the formative assessment that required improvement according to the observation rubrics.

It was also observed that there was lack of sufficient time for the proper implementation of the embedded formative assessments especially because they should be followed by consistent personalized feedback. The lack of sufficient time was an important

factor that may have held up rigorous results in the current study. It may have been better had the teacher had more time for the implementation of the preplanned formative assessments/activities specifically because the number of students in the class was above 25. More time would have provided the teacher with ample opportunities to attend to all the students' needs.

Another factor that may have caused an inhibition to show the effect of formative assessment on the achievement of fourth grade students would be the classroom environment. The teacher was not always able to create an interactive environment for the whole classroom especially that she had to give most of her time to the students who needed constant follow-up. The students who were able to go through the activities on their own and did not seem to need much help, were not given much assistance. Thus, the teacher was not always able to keep track of all the students' responses and attend to their needs at all times. There was worthy interaction between the teacher and the lower-achieving students of the formative assessment group since the teacher had to give constant feedback and follow-up on their progress – all of which was done with the assistance of the meticulous deliberation that the formative assessment unit plan had done. Nevertheless, it is worth mentioning that the formative assessment group/classroom was more interactive than the conventional assessment classroom and that is due to the questioning, group work and the discussions (that are inherent parts of the formative assessments) that the teacher lead in the formative assessment group.

The absence of improvement in the overall score may also be due to the fact that the teacher had limited experience in teaching; she is a fresh graduate. In order to interpret,

analyze and manipulate the responses that students give during informal formative assessments, the teacher should have an in-depth understanding of the content that would in turn yield better information about the students' understanding. Certainly, the teacher could have used more training in this respect. Nevertheless, the teacher benefitted from the sundry and scrupulous examples that helped her in the implementation and delivery of the formative assessments in an adequate manner most of the times especially with the lower achieving students of the formative assessment group. The teacher was able to overcome many problems that may have been caused by the limited experience she had through following the suggestions and recommendations of the formative assessment unit plan. Moreover, the teacher discussed issues pertaining to the students who had difficulty attaining the requisite goals, abilities and skills in the weekly meetings with the researcher. The treatment emphasized the strategies that the teacher had to use for the specifically with the lower achievers – especially that most of the feedback and interaction had to be with these specific students in order to help them reach the required objectives.

All of the mentioned factors constitute important aspects that may either hinder or facilitate the successful adoption of embedded formative assessment in instruction. Consequently, we fail to validate hypothesis that embedded formative assessment and feedback improves student achievement in the area of English reading comprehension. The results of this section of our study does not support the theory that the use of formative assessment and feedback increases in students' achievement (Black & William, 1998).

The findings of the current study can be interpreted in relation to other studies that have investigated the effect of formative assessment on student achievement. For example,

in the study of Furtak et al., (2008) “On the Fidelity of Implementing Embedded Formative Assessment and Its Relation to Student Learning” the authors investigated the quality of the implementation of the formative assessment treatment in the experimental group. Their study raised questions pertaining to the feasibility of the implementation of the formative assessment generally – this point was also raised by our study and was mainly highlighted in the observation rubrics. As it was a concern in our study, the authors clarify that it would be preferable to help teachers lead better discussions and engage students. The authors of the study also say that the teacher needs help in enacting the strategies that are believed to improve student understanding and achievement and that the failure of proper implementation of formative assessments was due to the teacher’s limited abilities in the areas of strategic instruction.

In the “Meta-Analytic Methodology and Inferences about the Efficacy of Formative Assessment” the authors say that there is considerable uncertainty regarding the effect of formative assessment on student achievement (Briggs, Ruiz-Primo, Furtak & Shepard, 2012). They say that there are many factors that make the implementation of formative assessment in the classroom ambiguous and difficult to replicate (Taras, 2009).

Van Den Bergh, Ros & Beijaard (2012) discussed the importance of having a “Constructivist” classroom in order to help the formative assessments reach their full potential in improving student achievement. The context of the classroom remained traditional to a certain degree as mentioned afore; the teacher was not able to initiate active learning whereby the students could construct their own knowledge. This inability was related to the classroom management problems that the teacher had; these issues were

clearly elaborated in the “Classroom Observation Rubrics” that the researcher and the assistant filled. Creating an interactive learning environment is difficult let alone an environment that is active (Black & William, 2008; Brookhart et. al, 2010). The number of students in the classroom may have been an additional factor that did not enable the teacher to properly manage her classroom and keep track of the records and the responses that she got from the assessments and activities and assessments were time consuming (Kozlun & Garb, 2004).

In another study, Sharkley and Murnane (2006) report that teachers with limited experience lack the ability to make proper inferences about the students’ responses; this becomes problematic in the process of transforming the information that is given about the students’ knowledge and skills into instruction. This inability interferes with the teacher’s competence in attending to the students’ needs especially if she has a large number of students in the classroom – as was the case in our study. Also discussed by Mardani and Tavakoli (2011), the degree to which students can achieve improvement in a given subject area is very much related to the mediator’s or the teacher’s interpretation skills. Furthermore, the authors state that lack of dramatic change should not be seen as lack of development – especially that such transformation requires time. Consequently, the teacher would probably use the data more efficiently had she more time to do so (Sharkley & Murnane, 2006) in addition to training. In our study, observers also reported that there was lack of sufficient time for the proper implementation and tracking of the students’ response.

Results for the investigation of the first research question may have been different had the teacher been experienced, trained over a prolonged period of time, was given more

time for the treatment and implemented the formative assessments as planned at all times. The fact that there was significant improvement in one of the subtests, may indicate that considerations pertaining to classroom management and the above mentioned factors may yield promising results on the effect of formative assessment and feedback on the overall achievement in English reading comprehension.

Effect of Formative Assessment on the Upper and Lower Thirds of the Formative and Conventional Assessment Groups

Univariate analysis of covariance was done on the upper third and the lower third of the formative assessment and the conventional assessment groups.

Upper Thirds of the Formative and Conventional Assessment Groups

Results of ANCOVA reveal that the upper third of the formative assessment group did not improve in the posttest when compared to (and controlled for the pretest) the scores of the conventional assessment group in the test overall. Nevertheless, there was improvement in the subtest of “Text Comprehension”. In this subtest the students were asked to read short comprehension texts and answer five questions related to it. The performance on this subtest can be considered an essential indicator of comprehension because it embodies many abilities and skills of comprehension and represents it expansively. In this subtest, students have to read, decode, understand and unlock meaning of familiar and unfamiliar words in a new context in order to comprehend the events and elements of the text independently and conjoint with the whole story. The texts increase in

length and difficulty as the student completes the items. The students are proficient at doing such exercises; most of their training in the classroom and the assessments they did are based on the same design and format as that was given in the standardized test TORC-4 (Annex II).

In a study conducted by Phelan, Choi, Vendlinski, Baker and Herman (2011) entitled “Differential Improvement in Student Understanding of Mathematical Principles Following Formative Assessment Intervention” the authors reported that the higher achieving students of the treatment group outperformed the higher achieving students of the control group. Even though this study’s results is not exactly similar to the results of our study – since the upper third of the formative assessment group did not show statistical significant improvement when compared to the upper third of the conventional assessment group the significant difference in the subtest of “Text Comprehension” can be considered worthy progress.

Lower Third of the Formative and Convectional Assessment Groups

As for the performance of the lower third of the formative assessment group, Univariate analysis of covariance revealed that there was significant improvement from the pretest to the posttest when comparing the scores of the formative assessment group to those of the conventional assessment scores. This improvement was true for the overall test (Reading Comprehension Index) in addition to the subtests of “Relational Vocabulary”, “Paragraph Construction” and “Contextual Fluency”.

In the subtest of “Relational Vocabulary” the students were given pairs of words and they had to choose two out of the given four choices that can be categorized the same as the given words. The performance on the subtest of “Relational Vocabulary” is related to the repertoire of diction that the student has (Kozulin & Garb 2004) – this repertoire was surely updated and enriched with every lesson or selection the students were exposed to during the time of the treatment. The students utilized and enhanced their abilities that are related to “Relational Vocabulary” because they did formative assessments on the texts that they had to read. The conventional assessment group read the same texts and passages but did not do formative assessments that the formative assessment group did.

In the subtest of “Paragraph Construction” the students were supposed to order sentences in a logical sequence. The formative assessments that were done during the period of the treatment may have contributed to the students’ ability in understanding why and how certain events can and should be sequenced in a certain way and not another. As mentioned in the sections above, the significant difference and improvement in this subtest along with the subtest of “Paragraph Construction” can be attributed to the “Probing Questions” that the teacher used during the time of the treatment. These questions were used within the formative assessments and the feedback that was given to the students. The activities may have enhanced the students’ reasoning abilities.

As for the subtest of “Contextual Fluency” students had to separate words that had been placed as one complete word without space between a word and another.

The findings of this section of our study validate the hypothesis that lower achieving students did improve in achievement when having been taught through the use of formative assessments and feedback. Therefore, the improvement of the lower achieving students could be attributed the treatment that was given to their group. They were able to do better when compared to the lower third of the conventional assessment group.

In the formative assessment classroom, the teacher explained and deliberated on how the requisite goals and the requirements of the formative assessments can be attained. She gave individualized feedback based on the performance of the students in the formative assessments specifically to the lower achieving students. She moved gradually and systematically in the process of checking the attainment of the prerequisites of the targeted goals before moving on to a skill or an objective especially to the lower achieving students – all of which were non-existent in the conventional assessment group. The treatment that contained the usage of formative assessment and feedback favored the formative assessment group. The treatment itself showed the teacher how to go about classroom instruction every step of the way; it favored the lower achieving students specifically. The limited experience she had was overcome with the detailed instructions she was given in the implementation of the formative assessments in the formative assessment group – these strategies were surely absent in the conventional assessment group.

The students of the formative assessment group were given plenty of chances to self-assess – as part of the formative assessments. The students were taught ways of questioning that they can use to check if they have understood an idea or a newly taught concept. This helped them organize their ideas better especially with the probing questions

and guiding steps that the teacher was giving in order to direct the students to the right responses on one hand and have them actively engaged in the process of analyzing and checking for whether their responses were correct on the other. The students were also asked to take part in discussions, group work and peer reviewing – all of which are detailed in the section of “Implementation of Unit Plans”.

The lower achieving students required more attention and follow-up as expected, and that enhanced the interaction between the teacher and these students in specific. The formative assessments and feedback gave students plenty of opportunities to assess the goals and objectives they were trying to reach and get the teacher’s help in reaching them over the created “moments of contingency”. This created proactive interaction between the teacher and the lower achieving students because the teacher went about the instructions through step-by-step questioning, discussions and corrective feedback. This may account for the improvement that was achieved by the lower achieving students of the formative assessment group when compared to the lower third of the conventional assessment group and to their primary performance.

The current study meticulously deliberated on the formative assessments that were to be used (and were used during the course of the study) in the unit plan (Annex II). This was useful because the teacher followed them with the lower third of the formative assessment group. Therefore it can be inferred that the accomplished improvement of the lower third of the formative assessment group is due to the formative assessments and feedback that were done. Both groups (formative and conventional) of the current study did the same activities (on the same content). The formative assessments for the formative

assessment group were embedded within specific activities that were administered. The purpose of administering those activities was to gain information about the students' achievement level and give feedback accordingly.

The close reading of the administration procedure in the formative assessment class to its lower third and the formative assessment class as a whole may suggest a certain degree of discrepancy and inconsistency in the implementation of the unit plan and the formative assessments. Nevertheless, this is not entirely accurate because the upper third of the formative assessment group also showed significant improvement in one of the subtests when compared to the conventional assessment group and the whole test when compared to their primary performance. The significant improvement of the formative assessment class in one of the subtests and the upper third of the formative assessment class is also attributed to the formative assessments.

The results of the current study can be interpreted in relation to other studies that aimed at investigating the role of formative assessment in the students' achievement. For example, in the study that was conducted on adding a dynamic assessment component on English foreign learners of reading comprehension for Mardani & Tavakoli (2011), the researchers incorporated the use of dynamic assessment as opposed to standardized static tests in order to provide crucial information about learning processes, reveal low learners' learning potential. It involves planned mediation and feedback from the teacher to the student; this was done in our study as mentioned afore. In the study of Mardani and Tavakoli (2011), the experimental group proved to have significantly improved from the control group as shown in the independent t-tests that were conducted. The effect size was

also large based on the guidelines of interpretation of Eta Squared. In Mardani and Tavakoli's study (2011), the teacher gave individualized feedback to the learners who seemed to have difficulty attaining the required skills and abilities – as it was done in our study.

Similarly in the study of “Dynamic Assessment of Literacy: English as a third Language”, the authors Kozulin and Garb (2004) applied the treatment of dynamic assessment that included attaining information pertaining to the potential of every child which in turn suggested desirable instructional suggestions. The inclusion of dynamic assessment elements ensured continuity between assessment and teaching. The authors maintained that those who began with low scores in the pretest, naturally received more attention and the teacher mediated with the appropriate strategies accordingly. In the study of Kozulin and Garb (2004), the researchers used dynamic assessment instead of static standardized tests in order to inform instruction and create an interactive environment in the classroom. These measures are very similar to the ones that were taken in the formative assessment classroom of our study; the standardized test was only used as a valid and reliable tool for testing. The results were used to check for improvement from pretest to posttest for the formative assessment group as opposed to the conventional assessment group. Furthermore, the standardized test was used to categorize the students' performance into higher achieving and lower achieving subgroups. The embedded formative assessments and not the test was not used for the purpose of informing instruction.

Most studies that have investigated the effect of formative assessment on student feedback have been done in the areas of Mathematics and Sciences (Black & William,

1998). For example, Ruiz-Primo and Furtak (2006) also found that embedding formative assessments within instruction can help improve student achievement. In the study by Ruiz-Primo and Furtak (2006), the teacher tried to gather information from everyday interaction and instruction. Through this framework, the work of four teachers were studied in their practices of informal assessments and tracked students' progress through embedded informal assessments. Results revealed that the students who showed significant improvement in their posttest were the students of the teacher who did more discussions – as it was the case in our study. The discussions in our study formed part of the formative assessments that were followed by feedback. This teacher used diverse teaching strategies that in turn helped inform her about student performance and progress. They also suggested that in designing formative assessments, the teacher should be aided with tools that can easily help them gather information about student learning and attend to their needs. This study has been criticized for its small number of participants though.

In the meta-analysis of Fuch and Fuch (1986), the purpose was to investigate the effect of systematic formative evaluation of educational programs on student achievement. The results of the analysis revealed that there was significant progress in the achievement of the learners of special education (that had learning difficulties) that were in groups of studies that employed formative assessment. In the meta analysis of Fuch and Fuch (1986), the authors reported that it was time consuming for the teachers to implement the incorporation of formative assessment and feedback into daily instruction and especially keeping track of the students' improvement – as was the case in our study. The authors suggest that recent developments in computer software can help in storing, tracking and

analyzing student progress and performance. It is necessary to mention that the lower achieving students of the current study do not necessarily have learning difficulties. Those who were in the school's special education program were excluded from the study; nevertheless, this does not mean that not all the students of the lower third do not have learning difficulties and that is because not all parents admit their children into the special education intervention program.

In the study of Fontana and Fernandez (1994), results revealed the frequent use of self-assessment helped increase in the achievement of the students in the area of mathematics. This of course, helped the students in taking responsibility of their own learning (Fontana & Fernandez, 1994). This study was criticized because one of the experimental groups improved while the other did not. Critics also pointed out to the fact that the sample of 24 teachers was small. In our study, one teacher was in charge of the two groups: formative and conventional assessment groups. The rationale of appointing one teacher to be in charge of the two sections of our study was to control variables that may cause important changes between the control and experimental classrooms. Furthermore, observations by the researcher and the assistant were set in order to ensure the lack of carry-over effect in the conventional assessment group.

Martinez and Martinez (1992) in their study also showed that the group of students that were subjected to repeated testing significantly improved in their remedial mathematics classes. While this study was criticized for the lack of information pertaining to the nature of assessment and feedback, our study made sure that there was detailed information

pertaining to the formative assessments that were to be implemented in the classroom as mention above.

In a study by Bergan, Sladeczek, Swharz and Smith (1991), formative assessments were embedded inside the program and the content that was to be taught to the students; results revealed that the experimental group achieved higher and more significant gains than the control group.

Wininger (2005) revealed in his study that when combining summative and formative assessment in ways whereby he gives the students with feedback, the students did better in upcoming times; this was specifically effective in the comprehension area. The researcher stated that future studies should study the impact of formative summative assessments for the lower-achieving students. Wininger (2005) in his study gave formative feedback to the students on their summative tests. Giving feedback and receiving it from the students creates good interaction between the students and the teacher. In our study, there was no incorporation of summative assessments along with formative assessments in terms of giving feedback to the students. In other words, the teacher did not give formative feedback after the students did the summative assessment. The grade 4 students did their summative assessment at the end of the unit when the treatment was finalized.

The current study is similar to the aforementioned studies in terms of the number of students that participated (Ruiz-Primo & Furtak, 2006), the way in which formative assessments were embedded inside the content of instruction (Ruiz-Primo & Furtak, 2006; Bergan, Sladeczek, Swharz & Smith, 1991), the approach that was used in incorporating

formative assessment and feedback into daily instruction (Kozulin and Garb 2004), the inclusion of students with learning difficulties and the subject matter of reading comprehension (Fuch & Fuch, 1986). Regardless of the differences in the means of implementation, the age group of the students and the contexts in which the previous studies were carried out, all of the mentioned studies along with the current one proved that the inclusion of formative assessments and feedback, can contribute to significant improvements in the students' achievement students.

The formative assessment group showed significant improvement in one subtest, the upper third of the formative assessment group showed significant progress when compared to the performance of the conventional assessment group in one subtest. As for the lower third of the formative assessment group, they showed significant improvement from the conventional assessment group in the overall test across and in the overall test and several subtests. Therefore, the treatment may have been especially effective on lower achieving students of the formative assessment group when compared to the higher achieving students of the formative assessment group; this results is in accordance with the initial hypothesis that formative assessment and feedback is more beneficial for lower achieving students.

The fact that the current study was able to probe and instigate progress for a certain group of students and for specific subtests, this means that a prolonged period may suggest progress for a larger section of students over a larger array of subtests or areas.

Limitations

As stated in other studies that have tried to investigate the impact of formative assessment on achievement, the current one also has drawbacks and limitations. The limitations of the current study are:

- The duration of the treatment was relatively short: eight weeks. It would have been preferable had the treatment been prolonged over a more extended period.
- The teacher may have needed more training from the ones that she was subjected to especially that she was a novice in the field.
- The small sample size ($N = 50$); it would have been preferable to have a larger sample size.
- The teacher had limited experience; the current year was her first teaching year. This could have contributed to the problems she had in classroom management, implementation of formative assessments and keeping track of student records.
- The participants had never taken a standardized test; TORC-4 was the first one they have ever sat for. Nevertheless, the students were given standardized instructions and the students had been given information about how to go about the test at each step and interval.

Recommendations for Further Research

It is recommended that future studies that investigate the impact of formative assessment take the following into consideration:

- Choose a relatively larger sample of students; larger experimental and control groups.
- Extend the duration of the implementation of the treatment: more than eight weeks.
- Train the teacher (who has experience teaching for at least a couple of years) a couple of months before the commencement of the study that will incorporate formative assessment and feedback in the instruction.
- Using technological tools that provide graphic summaries of results and developed assessments that monitor student progress throughout the school year could come in very handy; this was recommended by several previous studies that investigated the effect of formative assessment on student achievement (Fuch & Fuch, 1986; Sharkley & Murnane, 2006; Ruiz-Primo & Furtak, 2006).

REFERNCES

- Abi Faraj, N. H. (2011). Lebanese elementary mathematics teachers' conceptions of formative assessment and of its uses in the classroom. Retrieved from The American University of Beirut, b1542226.
- Alonzo, J., (2007). An examination of early reading skill covariance invariance across Spanish-speaking English language learners in grade 3 and 4 and their native English-speaking peers. ProQuest Dissertations and Theses. 3259271
- Andrade, H. L. (2010). *Handbook of formative assessment*. New York. Routledge.
- Ayala, C.C., Shavelson, J. R., Ruiz-Primo, A. M., Brandon, R. P., Yin, Y., Furtak, E. Young, D.B., & Tomita, M.K. (2008). From Formal Embedded Assessments to Reflective Lessons: The Development of Formative Assessment Studies. *Applied Measurement in Education*, 21, 415 – 444.
- Baroudi, Z. (2007). Formative assessment: Definition, elements, and role in instructional practice. *Postgraduate Journal of Educational Research*, 8, 47-48.
- Baxter, G. P., Glaser, R., & Pellegrino, J. W. (1999). Addressing the “Two Disciplines” Problem: Linking Theories of Cognition and Learning with Assessment and Instructional Practice. American Educational Research Association. *Review of Research in Education*, 24, 406 – 454. Retrieved from <http://www.jstor.org/stable/1166264>

- Bennett, R. E., & Gitomer, D. H. (2009). Transforming K–12 assessment: Integrating accountability testing, formative assessment and professional support. *Educational assessment in the 21st century*, 44-61.
- Black, P., & Wiliam, D. (1998a) Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7-73.
- Black, P., & William, D., (2009). Developing the theory of formative assessment. *Educational Assessment Evaluation Accountability*, 21, 5 – 41.
- Brookhart, S. M., Long, B. A., Moss, C. M., (2010). Teacher Inquiry into Formative Assessment Practices in remedial Reading Classrooms. *Assessment in Education: Principles, Policy & Practice*, 16, 41 – 58.
- Briggs, D., Ruiz-Primo, M., Furtak, E., & Shepard, L. (2012). Meta-Analytic Methodology and Inferences about the Efficacy of Formative Assessment. *Educational Measurement: Issues and Practices*, 31(4), 13 – 17.
- Brown, V. L., Wiederhot, J. L., & Hammil, D. D., (2009). *Test of Reading Comprehension*. Austin, Texas. ProEd.
- Cain, K., Oakhill, J. (2006). Assessment matters: Issues in the measurement of reading comprehension. *British Journal of Educational Psychology*, 76, 697 -708.
- Catts, H. W. (2009). The Narrow View of Reading Promotes a Broad View of Comprehension. *Language, Speech, and Hearing Services in Schools*, 40, 178 – 184.

- Cauley, K. M., & McMillan, J. H. (2010). Formative assessment techniques to support student motivation and achievement. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 84(1), 1- 6.
- Chall, J. S., & Curtis, M. E. (1996). Diagnostic Achievement Testing in Reading. In Shapiro, E.S., (1996). *Academic skills problems direct assessment and intervention*. 92(3), 405-416
- Cizek (2010). *Handbook of Formative Assessment*. New York: Routledge.
- Covic, T., & Jones, M. K. (2008). Is essay resubmission option a formative or a summative assessment and does it matter as long as the grades improve? *Assessment and Evaluation in Higher Education*, 44(1), 75 – 78
- Drouin, M. A. (2010). Group-Based Formative Summative Assessment Relates to Improve Student Performance and Satisfaction. *Teaching of Psychology*, 47, 114 – 118.
- Dunn, K.E. & Mulvenon, S.W. (2009). A Critical Review of Research on Formative Assessment: The Limited Scientific Evidence of the Impact of Formative Assessment in Education. *Practical Assessment, Research & Education*, 14(7)
- Edman, E., Gilbreth, S., & Wynn, S. (2010). Implementation of formative assessment in the classroom. Retrieved from ProQuest. 3437858
- Fisher, D., & Frey, N. (2007). *Checking for understanding*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Fontana, D., & Fernandes, M. (1994). Improvements in mathematics performance as a consequence of self-assessment in Portuguese primary school pupils. *British Journal of Educational Psychology*, *64*, 407-417
- Frederiksen, J. R., & White, B. J. (1997). Reflective assessment of students' research within an inquiry-based middle school science curriculum. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Fuch, L. S., & Fuch, D. (1986). Effects of systematic formative evaluation: A meta-analysis. *Exceptional Children*, *53*, 199-208.
- Furtak, E.M., Ruiz-Primo, M.A., Shemwell, J.T., Ayala, C.C, Brandon, P.R., Shavelson, R.J., & Yin, Y. (2008). On the Fidelity of Implementing Embedded Formative Assessments and Its Relation to Student Learning. *Applied Measurement in Education*, *21*, 460-489.
- Gall, M. D., Gall, J.P., & Borg, W. R. (2010) *Applying Educational Research: How to read, do, and use research to solve problems of practice*. Pearson. Boston.
- Guskey, T. R. (2005). Mapping the road to proficiency. *Educational Leadership*, *55*(3), 32-38.
- Improving Assessment: Interaction of psychology and Psychometrics. Retrieved from <http://www.ets.org/Media/Research/pdf/RM-08-15.pdf>
- Jammal, R. (1999). Adaptation and development of norms for the test for auditory comprehension of language – revised (TACL-R) in Lebanon. Retrieved from The American University of Beirut, b1386965.

- Jenkins, J. O. (2010). A multi-faceted formative assessment approach: better recognizing the learning needs of students. *Assessment & Evaluation in Higher Education*, 45(5), 565 – 576.
- Kozulin, A. & Garb, E. (2004). Dynamic Assessment of Literacy: English as a Third Language. *European Journal of Psychology of Education*, 19(1), 65-75.
- Mardani, M. & Tavakoli, M. (2011). Beyond Reading Comprehension: The Effect of Adding a Dynamic Assessment Component on EFL Reading Comprehension. *Journal of Language Teaching and Research*, 2(3), 688-696.
- Martinez, J. G. R., & Martinez, N. C. (1992). Re-examining repeated testing and teacher effects in a remedial mathematics course. *British Journal of Educational Psychology*, 62, 356-363.
- Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Neddenriep, C. E., & Hale, A. D. (2011). Introduction to the special issue: Reading Comprehension: *Assessment and Intervention for Understanding*. *Psychology in the Schools*, 48(1).
- Popham, W. J. (2008). *Transformative assessment*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Nicol, D. J. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education, 41*(2), 199 – 218.
- Phelan, J., Choi, K., Vendlinski, T., Baker, E., & Herman, J. (2011). Differential Improvement in Student Understanding of Mathematical Principles Following Formative Assessment Intervention. *The Journal of Educational Research, 104*, 330 – 339.
- Ruiz-Primo, M. A., & Furtak, E. M. (2006). Informal formative assessment and scientific inquiry: Exploring teachers' practices and student learning. *Educational Assessment, 11*, 205-235.
- Stiggins, R. J. (2005). From formative assessment to assessment for learning: A path to success in standards-based schools. *Phi Delta Kappan, 87*(4), 324-328.
- Sharkley, N. & Murnane, R. (2006). Tough Choices in Designing a Formative Assessment System. *American Journal of Education*.
- Stetson, R., Stetson, E. G., & Sattler, J. M. (2001). Assessment of academic achievement. In J. M. Sattler (Ed.), *Assessment of children: Cognitive applications, 576-609*.
- Stiggins, R. J., Arter, J. A., Chappuis, J., & Chappuis, S. (2006). Classroom assessment for student learning: Doing it right using it well. Portland, OR: Educational Testing Services.

- Taras, M. (2009). Summative Assessment: the missing link for formative assessment. *Journal of Further and Higher Education*, 44(1), 57 – 69.
- Thompson, Marnie (2004). *Study of the impact of the California formative assessment and support system for teachers: Report 4: methodological considerations and recommendations for future research*. California: Educational Testing Service.
- Torrance, H., & Pryor, J. (2001). Developing formative assessment in the classroom: using action research to explore and modify theory. *British Educational Research Journal*, 27(5), 615-641.
- Triola, M. F. (2011). *Essentials of statistics* (4th ed.). Boston, MA: Pearson Education.
- William, D., (2010). An Integrative Summary of the Research Literature and Implications for a New Theory of Formative Assessment. In Andrade, H. L., Cizek, G. J. (2010) *Handbook of Formative Assessment* (p18-40). 260 Madison Ave., New York
- Van Den Bergh, L., Beijaard, D., & Ros, A., (2012). Teacher Feedback during Active Learning: Practices in Primary Schools. *British Journal of Educational Psychology*.
- Van Evera, W. C. (1995). Achievement and motivation in the middle school science classroom: the effects of formative assessment feedback. Retrieved from ProQuest. 3110082

Wininger, R. S. (2005). Using your tests to teach: Formative summative assessment.

Teaching Psychology, 32(2), 164-166.

Yeh, S. S. (2010). Understanding and Addressing the Achievement Gap through

Individualized Instruction and Formative Assessment. *Assessment in Education:*

Principles, Policy & Practice, 16(2), 169 – 182.

Yin, Y., Shavelson, J.R., Ayala C.C., Ruiz-Primo A. M., Brandon, R. P., Tomita, K. M., &

Young, B. D. (2008). On the Impact of Formative Assessment on Student

Motivation, Achievement, and Conceptual Change. *Applied Measurement in*

Education, 21, 445 – 459

Arabic References

للبحوث والإنماء: مشروع تطوير نظام التقييم المدرسي. لجنة التربية الوطنية والتنشئة المدنية (المركز التربوي

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APPENDIX I

TEACHER TRAINING PROGRAM

Teacher Training Program

In the current study one teacher will be in charge of the formative assessment and the conventional assessment groups/classrooms. At the beginning of the first teacher training session, the teacher is informed about the study that will be conducted in her classes. The teacher will be informed about the duration of the three sessions (60 minutes each) and that of the study (8 weeks; 50 sessions all in all – 40 of which are to be given to English reading comprehension) in addition to her role in the implementation of the information that is included inside the unit plans. This of course, does not mean that the teacher does not have the right to meddle with the instructions to a certain extent and elaborate on the feedback that will be given to the students. After all, the teacher is going to be working on “moments of contingency” (Black & William. 2008).

Session One

During the first training session, the teacher will be given information about the principles of formative assessment and feedback in form of a lecture. The teacher is welcome to share her ideas, thoughts and concerns. For the teacher to be able to adopt the formative assessment and feedback approach, it is necessary to make sure that the students first learn and acquire the desired learning skills, apply what is learnt in different situations, work independently and collaboratively. She on the other hand, needs to make sure that the assessment process is an enabling one. It is important to acknowledge that children learn in a variety of ways; they learn through experience, experimentation, reading, doing things, and thinking, reflecting in groups and individually. Therefore, it is only natural that

learning takes place inside and outside school. Below are the principles that will be elaborately discussed and explained in the first introductory training session (Check PowerPoint Presentation for lecture of session one):

1. The learners are properly informed about the learning targets that are the core of the learning and the teaching processes
2. Establishing a classroom culture that encourages interaction and the usage of different types of assessment tools (elaborated in unit plan; the different activities and means through which targeted skills and abilities are taught).
3. Establishing goals and tracking individual student progress with respect to these goals:
 - Expanded monitoring and conferencing with students
 - Progress cards listing student goals and noting when students worked on them
 - Keeping records of feedback given to students during reading and giving students “goals” on the basis of these notes
 - Intentional comments to students regarding specific positive accomplishments
4. Use varied means of instruction to attend to the needs of different students;
Continuously adjusting instruction in order to meet the needs of all learners
5. Assessment is expectations transformed thus representing an accurate means of student achievement
6. Feedback on student performance and using the information gathered from the formative assessment to inform instruction; classroom assessment needs to needs to

be transformed into proper feedback; descriptive feedback that in turn helps the learner realize the areas that need attending to

7. Make sure that the learners are actively involved in the learning process

Session Two

After having gone through the principles of formative assessment and formative feedback, the researcher will conduct an in-depth discussion about the two unit/lesson plans and the tools that will be used in formative assessment, evaluation and feedback:

Two unit plans have been developed: one that will be used in the conventional assessment group and another that will be used in the formative assessment group. Both of these unit plans contain the same number of lessons and sessions. The main difference between them is the incorporation of formative assessment and feedback in the formative assessment group; the formative assessment unit plan has activities and exercises that form the formative assessments in addition to suggested means of dealing with different situations and giving proper formative feedback. The conventional assessment unit plan lacks the formative assessment activities and the teaching strategies that include tactics for students to monitor, assess and evaluate themselves. Moreover, the paper-pencil formative assessments in the formative have been replaced with paper-pencil summative assessments in the conventional assessment group.

A. Probing questions

The unit plan of the formative assessment group or classroom contains details about the different aspects that the teacher needs to take into consideration and work on; it clearly elaborates on the different ways through which the teacher is to go about in her instructions, assessment and – feedback to a certain extent. There are examples in the unit plan that discuss options of re-teaching or attending to the needs of learners who have not been able to attain the targeted objectives. The teacher can adopt the suggested approaches or come up with her own methods; what stays of prior importance is keeping record on those who are “falling behind” and remediating almost immediately along with providing constructive, positive and descriptive feedback. The part on feedback is mainly pertinent to the way the students accept and internalize the information that they are being taught. The unit plan includes probing questions and activities that can help the teacher go about teaching the objectives. These questions indicate if the students’ comprehension is acquired or not. The questions are progressive; they can indicate the prerequisites of each and every focus skill thereby making it easier for the teacher to know exactly which aspects she needs to focus on and attend to accordingly. The following examples of probing questions are also examples of formative assessment tools:

Table A1

Probing questions as lesson introduction

Theme opener: Read aloud and write the theme title and quote on the board: “That’s Amazing” and display the photos on amazing things about the world. (to be sent)
--

“If sunlight fell like snowflakes,
gleaming yellow and so bright,
we could build a sunman,
we could have a sunball fight....”

- Frank Asch

Use the following questions to prompt discussion about the quote and the photos:

- 1- What does the word amazing mean?
- 2- What does the quotation by Frank Asch have to do with the title of the theme?
- 3- Describe what a sunman and a sunflake would look like.

Ask volunteers to read aloud the author’s letter on Anthology p. 294, and 295.

1. Tell your friends about something amazing that has happened to you.
2. What is the most amazing thing you have ever heard?

Table A2

Probing questions midstream

Ask the following questions and have the students answer them orally. Observe the students and the answers they give and keep record of those who seem unable to progress in comprehending the story with the rest of the classmates.

1. What general statement can you make about the stranger based on the details about the cold draft and the broken thermometer?

The stranger is somehow connected with cold air.

2. Think about the author's intended audience. Why do you think he often tells what Katy sees?

To give the story a child's point of view and appeal to young children.

3. The rabbits seem to know something that they know Baileys do not.

Possibly the identity of the stranger.

Table A3

Probing questions for further discussion

Have students skim pages 306-315 for details about who the stranger is.

Create with the students the equation below. Have the students provide with the details and then draw a conclusion about the stranger's identity.

The doctor's thermometer breaks when used on the stranger

+

Rabbits seem to know him

+

The stranger blows on soup and causes a cold draft

+

The stranger does not sweat when he works hard

+

Green leaves upset the stranger

=

?

Create small groups and have them draw a similar equation that shows how the Baileys feel about the stranger. Have volunteers share.

B. Formative assessment tools

It is necessary to mention that the teacher will collect information using different types of tools and procedures, keep record of the different responses different learners give and report it continuously. It is also necessary to give positive and constructive feedback to the learner that can help in turn better the understating of the targeted abilities and skills thus bettering the performance. What is of great prominence is: regularity of assessment, the diagnosis of the learning gaps and the use of corrective feedback that can serve for teachers and learners forms of self-evaluation. The teacher is supposed to follow the guidelines inside the unit plans, assess accordingly and give proper feedback to the students. The instructions show that teaching this course is mainly student-centered;

nevertheless, this does not happen without the teacher's guidance. In this process, the teacher is supposed to gather information about the acquisition of the learning targets and the effectiveness of teaching through (a) observations, (b) assignments (c) discussions and (d) paper pencil formative assessments. As a second step, the information gathered from the first step and record in the learner's profile or grade book in order to check for progress. As a third step the teacher is to analyze the information and use that information to adjust teaching. The teacher is to check if learners are having difficulty in catching up with the pace of the teacher, the problems that the learners are facing and the differences that need to be introduced to the teaching strategies used.

Table A4

Discussion Options

Bring the entire class together to do one more activity:

- Review Predictions/Purpose: have students review and explain why their predictions were accurate or not.
- Summarize: have students use their detail maps to summarize the story and discuss the author's purpose in writing it.

Table A5

Paper-pencil formative assessments

Give the following as a formative assessment in order to assess the learners' understanding of the whole story.

1. What is the Bailey family like? Use details from the story to support your description.
2. What are the first few clues that tell you that something is unusual about the stranger?
3. The stranger feels that something is “terribly wrong” when he sees green leaves on the trees. What do you think is wrong?
4. Who do you think the stranger is? List three clues that can help you guess his identity.
5. If the stranger stayed for a while in the area where you live, what effect do you think he would have on the climate?

Table A6

Observation and formative evaluation

Remind students that this story is about a creative way to beat a heat wave.

Have students preview the selection by looking at the illustrations. Ask students to predict some challenges the characters will face.

As students read, have them evaluate what makes the tall tale and its illustrations enjoyable and funny.

Ask students to note details are realistic and which are too zany to happen in real life.

Students can evaluate and record if and why they feel the author has succeeded in entertaining the readers of Heat Wave!

Page 362

1. Why does the narrator holler for Ma and Pa and Hank?

Because she wants them to see the heat wave and the strange thing that happened to the geese.

2. What events does the author create to show that this is no ordinary heat wave?

The mercury blasts out of the thermometer, and the flowers crawl under the porch.

3. How would you describe the expression on the girl's face in this illustration?

Amazed, puzzled, and not believing her eyes...

Table A7

Assignment

Assignment:

In small groups, have students look for details of plot, characterization, and setting that show exaggeration and humor. They might use a chart like this one:

Plot	Setting	Characters
Corn is popping in the field	Ground is too hot for cows to stand on	They are strong enough to mix a giant batch of bread dough

As a class, discuss details students have found and how details would differ in a realistic story. Monitor the students' answers and give immediate feedback to those who participate and answer the questions orally.

Session three

In the third training session, the researcher will model the implementation of parts of the units plan in addition to the different ways in which formative evaluation is supposed to be done along with formative feedback. Afterwards, the teacher will be asked to

demonstrate teaching parts of the unit plan; she will be given different scenarios that would require timely and appropriate formative feedback.

Table 8A

Modeling 1

Why do you think the characters don't try to unsnag the Heat Wave!

How does the author show that the narrator can think quickly?

She is the one who thaws out the frozen dog.

- Teacher/student Modeling

Explain that good readers evaluate a story by looking at its weaknesses and strengths. Suggest that students ask themselves questions like these:

- In the author's effort to be funny, does she make the story too silly?
- Is there so much exaggeration that the story is hard to follow?

Page 365

TEACH:

Fantasy and Realism

Tell students not to believe everything they read!

Authors sometimes mix realistic, believable details with unbelievable details. This can add humor to the story.

Write sentences on the board and ask the learners to decide whether they are realistic or a fantasy. The students should be able to explain why.

The teacher should ask the learners to provide her with sentences that can be considered realistic and those that are fantastical. The learners should be able to explain the difference using their own words.

Table 9A

Modeling 2

- Review

Ask volunteers to identify the main characters and the setting of Heat Wave!

Have students identify the problem and the solution of the plot.

As a class, discuss how the story might be similar and different if the plot was changed so that a blizzard hit the farm?

Table 10A

Modeling 2

Focus Skill: Fantasy and realism. Remind learners that fantasy involves events that couldn't happen in real life, while realism involves events that could happen or that have happened. Then, complete the graphic organizer on transparency 3-22 with learners.

Page 372

Ask students to model their evaluations of the author's choice to let the narrator fail in this attempt to defeat the heat wave. If necessary, use these prompts:

- Are these good reasons for letting the girl try and fail?
- Does it show anything interesting about the character?
- Does it keep the story moving or slow it down?

Table 11A

Modeling 3

Page 375

TEACH:

Explain that illustration for Heat Wave! Reflect somewhat surrealistic style of art.

In this dreamlike style, everyday objects may be exaggerated in size and shape or placed in unlikely situations.

Because tall tales include exaggerations, surrealistic illustrations can enhance the humor and the over-the-top story events.

Practice

Have students turn to pages 362-363. Model finding some surrealistic elements of art.

Divide the class into small groups. Assign each group a two-page illustration. Ask

the students to locate surrealistic elements such as unusual size, shape or placement of objects and characters.

Discuss the groups' findings in class. Ask students to comment on how some surrealistic elements help make the story clearer or funnier.

APPENDIX II

UNIT PLAN: FORMATIVE ASSESSMENT GROUP

UNIT PLAN: FORMATIVE ASSESSMENT GROUP

Class Grade 4
 Unit 3
 Title of Theme That's Amazing
 Weeks 5- 12
 Number of periods 50

Unit Plan Matrix

Duration	Selections	Literary Focus	Grammar	Vocabulary	Writing	FA/SA/ Presentations
Weeks 5 ___8	The Stranger	Noting details	Action verbs	Autumn- draft- etched- frost- mercury- peculiar- thermometer- timid	Writing a descriptive paragraph	

Weeks 9 and 12	Heat Wave	Fantasy and realism	Main and helping verbs: has and have Present/past/ Future tenses	Affected-horizon-miscalculated-singe-temperature-weather vane	Writing a descriptive paragraph	Summative Assessment
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The abilities to be emphasized in the two stories are:

- Cause and effect
- Drawing conclusions
- Noting details
- Problem solving
- Making inferences
- Sequence of events
- Making judgments
- Compare and contrast
- Story structure

Week 5

Session 1

Theme opener: Read aloud and write the theme title and quote on the board: “That’s Amazing” and display the photos on amazing things about the world.

“If sunlight fell like snowflakes,
gleaming yellow and so bright,
we could build a sunman,
we could have a sunball fight....”

- Frank Asch

Use the following questions to prompt discussion about the quote and the photos:

- 4- What does the word amazing mean?
- 5- What does the quotation by Frank Asch have to do with the title of the theme?
- 6- Describe what a sunman and a sunflake would look like.

Ask volunteers to read aloud the author’s letter on Anthology p. 294, and 295.

3. Tell your friends about something amazing that has happened to you.
4. What is the most amazing thing you have ever heard?

Session 2

Story 1: The Stranger

Tell the students that they are going to read a retelling of a Native American folktale about how the seasons came to be.

Explain that in Indian Summer refers to a period of mild weather in late autumn.

Explain to the learners the following about noting details:

- Details help readers see, hear, and feel events in a story
 - Details can give readers clues about the author's viewpoint
 - Determining which details are important helps readers better understand the story
- (can be done as a listening FA)

Session 3

Focus Skill: Noting Details

TEACH:

FA: Read "Nanabozho Brings the Seasons" aloud and ask the students to note important details as they listen.

Then use the following questions on order to assess students' understanding; tell the students to write down their answers in the copybooks and have them read aloud their answers afterwards – keep record in the grade book in order to check for progress and adjust teaching accordingly. Those who have not been able to answer the below questions the teacher is supposed to check the detailed notes of these specific learners in order to see if they were able to take notes properly. Instructions would be directed accordingly:

1. What details helps you see what happens where Nanabohzo runs?

Sample answer: a patch of colorful flowers sprout where his moccasins touch the earth; the animals welcome him; when he laughs pulls back to show Sun.

2. What do the details of the story tell you about Peepaukawkis?

She is jealous of his brother and angry at how the animals greet him; he acts spitefully in bringing sleet and snow to the land.

3. How does Peepaukawkis bring about foul weather?

He picks up handfuls of water from the river, throws them into the air, and calls on the winds to bring bad weather.

Check the alignment of the students' notes and the answers they have gotten of the questions that were posed after the listening.

Sessions 4 & 5

Building Background and Vocabulary:

Tell students that the title of the theme is That's Amazing! It contains stories about wondrous people and events. Read aloud "When the Leaves Fall" on Anthology pp. 298-299 to build background and introduce Key Vocabulary.

Use transparency 3-1. Have learners use context clues to find the meaning of the keywords.

Ask learners to locate context clues and define each Key Vocabulary word.

FA: ask the learners to choose four words and write complete and meaningful sentences with them (homework).

TEACH:

FA: Pass around and check if the learners are able to locate context clues and take notes inside the record book inside the profile of each and every learner. Attend to the needs of those who have not been able to locate context clues and check if they reached the target in the activity that they are to do at the end of this session. In this process, the teacher can ask a couple of volunteers to come to the board and exhibit how they were able to find context clues (the questions they would ask themselves in the procedure of finding the meaning of a specific word through the other words that are found inside the sentence).

Then, ask them to write the keywords' definition in their vocabulary copybook.

-Display the pictures and ask them to match the vocabulary words to the pictures.

Divide learners into groups of 4. Provide each group with 5 index cards and have learners choose 5 vocabulary words and put them in a paragraph. When they finish, ask them to illustrate, and then share their paragraphs with their classmates.

Classwork: PB p. 211.

HW: Review vocabulary list.

Sessions 6 & 7

Let learners read aloud page 302, and then try to retell the story in their own words.

Page 302

1. Which words provide information to when the story takes place?

When summer turned to fall

2. How has the author created suspense as this page ends?

By saying: we don't know what the farmer has hit

TEACH:

Tell students that point of view is the angle from which a viewer has a scene.

Point out that artist Chris Van Allsburg incorporates unusual points of view in his illustrations.

Explain that an unusual point of view can add drama to an illustration and helps the artist express a certain mood.

Have students determine the point of view in the illustration on page 303.

1. Where does the viewer seem to be located? This viewpoint provides a peaceful and relaxing mood to begin the story.
2. Have students discuss the illustrations in "The Stranger". Have students identify where the viewer is located in each, what mood the illustration creates, and how the artist uses point of view to draw viewers into the scenes.

1. In the first two sentences, how does the author continue to create suspense?

It seems as if the man lying in the road might be dead.

2. Does the stranger act as you would expect?

No, it isn't normal to try to run away after being hit by a trick.

3. What do the actions of the farmer show about his nature?

He is caring and sensible and wants to help the stranger.

FA: The teacher can have the learners answer the questions orally, on the chalkboard or the copybooks; keep record in progress cards in order to make sure that the learners are able to use comprehension strategies in their reading.

TEACH:

Explain that reading a fantasy requires an active reading technique whereby readers make sure that they understand the material before they get bogged down and confused.

Ask the students to read page 304 silently and ask themselves if they understood everything they read (self-assessment; self-efficacy).

Check with the learners by having a group discussion about how they were able to decide whether they understood the contents of what they read or not. The students are supposed to say that they asked themselves questions such as:

- What is happening?

- Why is it happening?

FA: They could then clarify anything they don't understand while reading. Those who were unable to use the strategy of questioning while reading will then realize that these questions actually help them in understanding the content of what they are reading.

Page 305

Remind students that cause and effect is the reason an event happens and an effect is the result of a cause.

Readers can ask questions to identify causes and effects:

- Why did it happen?
- What happened?

Clue words and phrases help signal cause-effect relationships. Clue-words include: so, since and as a result.

Page 306

Ask the following questions as you go about the selection. The teacher can give these questions as an assignment and collect them the next day.

1. How does the illustration place you in Katy's shoes?

It gives the reader the same point of view as Katy when she is peeking through the door to try to see the stranger.

2. How does the author establish the oddness of the stranger?

With details about his odd clothing and his inability to talk.

3. The broken thermometer is a strange detail. What do you think it means?

Answers will vary.

FA: Draw a diagram of a mercury thermometer on a chalkboard or ask a student to describe one. Talk about the parts of the thermometer and label the diagram accordingly. Remind students that the level of the mercury indicates the temperature and that the two things are not the same even though the term mercury is often used as a metaphor for temperature.

Week 6 Session 1 Page 307

TEACH:

Remind students that the details are important to a story.

Details help readers understand characters and events, evaluate characters and picture the setting.

Have someone read the second paragraph on page 306 aloud.

FA: Ask students to list details that give information about what the doctor did before he made the diagnosis. He hastened to the stranger's heart, felt his bones and looked in his eyes and took his temperature. Have students go back to the first paragraph on page 306.

Ask them to list the details that support this main idea: The stranger is mysterious.

The stranger is mysterious

Odd, rough leather clothing, looks like some kind of hermit. Doesn't seem to understand questions, his temperature doesn't show on the thermometer.

Page 308

Ask the following questions and have the students answer them orally. FA: Observe the students and the answers they give and keep record of those who seem unable to progress in comprehending the story with the rest of the classmates.

4. What general statement can you make about the stranger based on the details about the cold draft and the broken thermometer?

The stranger is somehow connected with cold air.

5. Think about the author's intended audience. Why do you think he often tells what Katy sees?

To give the story a child's point of view and appeal to young children.

6. The rabbits seem to know something that they know Baileys do not.

Possibly the identity of the stranger.

Page 309

1. What is the stranger's problem? What might happen when he solves it?

He can't remember who he is; he might be leaving.

2. Was it wise of the Baileys to welcome a stranger into their home?

Answers will vary.

FA: Have students take turn in modeling the strategies they learned (asking questions...)

Have students review their predictions about the stranger's identity and revise them if necessary. Discuss ways students monitored their reading and clarified their reading and the confusing parts.

Have students share their literature discussions. Listen to the answers they provide and give immediate feedback. Direct the students' responses in case they indicate confusion – by asking further questions.

Assignment card
<p>Literature Discussion</p> <p>Within small groups, use the questions below along with any others you thought of to discuss the story:</p> <ul style="list-style-type: none">- If you were describing this story to a friend who had not read it, what words would you use?- How would you feel if this particular stranger were staying at your house?- How might the story be different if it were set in another season, such as winter?- Is it possible for someone to consider this story not strange? Why or

why not?

Session 2

Page 310

1. Why do you think the stranger doesn't tire or sweat even though he is working hard?
2. Why does the author say that the stranger stared at the geese like a man who had been hypnotized?

Page 312

1. What detail shows that the farmer Bailey is wrong about identifying the stranger as a hermit?
2. "Trees in full leaf aren't usually thought of as a "drab" and ugly", why does the author use such words?

To show how uncomfortable the stranger is.

TEACH:

Define fantasy as a form of literature that features unlikely or impossible characters, settings, and/or events.

Fantasy may involve magic, as in many fairy tales and folktales.

Explain that ghost stories are a form of fantasy, and so is most science fiction.

Ask students to brainstorm a list of elements that make *The Stranger* a fantasy.

Ask these questions and discuss students' answers to help them determine where the story crosses the line between fiction and fantasy.

- Which characters are realistic? Which has unlikely traits?
- In what ways is the setting realistic?
- Which events could really happen? Which events could never happen?

Session 3 Page 314

1. What do you suppose happened to the leaf the stranger blew on? Why do you think the author does not explain?

It turned red or yellow; the author wants readers to figure out the stranger's identity for themselves.

2. Are you surprised that the air turned cold and the leaves changed when the stranger left? Why or why not?

No; he is clearly connected to the changing of the season.

TEACH:

Have students use their detail maps to summarize main ideas and details for the story so far.

FA: Have students ask themselves questions in order to check for their understanding.

Bring the classroom together to do one more activity:

Use the strategies when reading the story (story structure/summarize/ sequence of events)

- Drawing conclusions:

Tell students that authors do not always say everything they want their readers to know. Sometimes the readers must draw conclusions from details to figure out what the author does not explain.

Have students skim pages 306-315 for details about who the stranger is.

Create with the students the equation below. Have the students provide with the details and then draw a conclusion about the stranger's identity.

The doctor's thermometer breaks when used on the stranger
+
Rabbits seem to know him
+
The stranger blows on soup and causes a cold draft
+
The stranger does not sweat when he works hard
+
Green leaves upset the stranger
=
?

FA: Create small groups and have them draw a similar equation that shows how the Baileys feel about the stranger. Have volunteers share. Check the responses of the students and make sure to give them the proper feedback.

Session 4 Page 316

1. How does the author show that time has passed since the stranger first arrived?

With the phrase: every autumn since the stranger's visit.

2. Why do you suppose the colors at Bailey's farm are the brightest around?

The stranger loves colorful leaves and he provides his friends with the brightest ones.

3. Does it make sense that the stranger's message would be etched in frost?

Yes, the stranger brings about fall changes in nature, and frost is a sign of fall.

- Discussion options:

Bring the entire class together to do one more activity:

- Review Predictions/Purpose: have students review and explain why their predictions were accurate or not.
- FA: Summarize: have students use their detail maps to summarize the story and discuss the author's purpose in writing it.

Session 5

FA: Give the following as a formative assessment in order to assess the learners' understanding of the whole story.

1. What is the Bailey family like? Use details from the story to support your description.
2. What are the first few clues that tell you that something is unusual about the stranger?
3. The stranger feels that something is “terribly wrong” when he sees green leaves on the trees. What do you think is wrong?
4. Who do you think the stranger is? List three clues that can help you guess his identity.
5. If the stranger stayed for a while in the area where you live, what effect do you think he would have on the climate?

Session 6 Week 7

Sessions 1 and 2:

Writing: Where do you think the stranger goes after he leaves the Bailey’s farmhouse?

Make a drawing of the stranger in the place where he stays next or lives during the rest of the year. You might want to draw a picture that is somewhat mysterious, like the ones Chris Van Allburg draws. (Individual work)

Draw a picture and write a descriptive paragraph using sensory details.

(Learners can read aloud their paragraphs. Encourage them to use the sensory words that we gave them in unit 2) (CCC 5)

Session 3

Focus Skill: Noting Details (after reading the story)

Remind learners that details describe people, places, and events in a story. They allow the reader to see, hear, and feel. Some details are more important than others.

Have students follow in their books as we read aloud p. 306-308. FA: Work with them to select the details that can be used to learn who the stranger is. Help them identify details that might help solve the mystery and better understand the story.

Then, complete the graphic organizer on transparency 3-2 with students.

Session 4

Pair work: PB p. 214-215

Correct CW

H.W: Think About the Selection: Answer questions p.318 in comprehension c.b

Sessions 5 & 6

- Structural Analysis: Compound Words
 - Introduce the skill p. 323C in Teacher's Edition.
 - Define compound words. Explain that a word made up of 2 smaller words is called a compound word. Point out that often it is possible to figure out the meaning of a compound word by combining the meanings of the 2 smaller words.

- Activity: Write these words on index cards: basketball- pancake- backyard- airplane- notebook- watermelon- postcard- rainbow- understand.
- Cut the cards into 2 parts. Have learners work together to match parts and write a sentence with a compound word formed from their word parts. Have learners read their sentences aloud. Do PB p. 216
- Spelling: Compound Words
- Display the 20 new words on the board. Discuss their meaning and put them in meaningful sentences orally.

Do PB pp. 217-218

H.W: PB p. 219

Week 8 Session 1

- Grammar: Action verbs
- Refer to 323I-324J in TE
- Use transparencies 3-6 and 3-7 to introduce action verbs.
- Activity: Invite volunteers to come up and mime actions for their classmates to identify. (run- walk- hop- draw- sing- dance- skip- clap- shake- nod)
- Do PB pp. 221-222-223

Session 2

- Writing: How would you respond to the stranger if he had visited you. Write sentences describing what might happen. Each sentence should include an action verb. (Ask them to share their sentences)

Sessions 3 and 4

Focus Skill: Compare and contrast

Explain that comparing means showing similarities

Contrasting means showing differences

Comparing one thing with another can help a reader remember information.

Draw a Venn-Diagram on the board. FA: Ask learners to choose 2 characters of stories that they have read and compare and contrast them.

CW: PB p.

Sessions 5 and 6

- Grammar: Main Verbs/ Helping Verbs
- Display the following sentences: I live on a green island. I had lived on a green island. Ask learners to compare the two sets of underlined words. (One verb is made up of one word; the other, two). Put a double line under the main verb and circle the helping verb in the second sentence. Then review these concepts:
- When a verb has more than one word, the main verb shows the action. A helping verb works with the main verb. The verbs am, is, and are help other verbs show action that is happening now. The verbs was, were, and had help other verbs show actions that happened in the past.

- Provide them with examples from the selections and ask them to identify the main and helping verbs.
- Have learners suggest a list of ten action verbs, and then ask them to add a helping verb and use them in a sentence paying attention to subject-verb agreement.
- Use transparency 3-16/ 3-17 and do the exercises together.

Do PB pp. 241-243

PB p. 242 (CW/)

Session 7

Writing a descriptive paragraph of a place (Drafts 1 and 2)

Week 8 Session 1 and 2

Formative assessments + correction

Session 3 & 4

Activity: What if you could communicate with a character in *The Stranger* or *Cendrillon*?

What would you like to ask the character? What would you like to tell him or her?

- Write a friendly letter to a story character. (Learners will be provided with colored A4 papers to write their letters.) (to be displayed in class)

Story 2: Heat Wave

Session 5 & 6

Ask students to read the “Strategy Focus” and tell them that evaluating how well an author tells a story can help you think about what makes each story element work well or not so well.

Graphic organizer

Tell students that Heat Wave! contains both fantasy and realistic elements. Using the Fantasy/Realism Chart on Practice Book page 247 will help them keep track of both kinds of details.

Display the transparency (3-22) and (FA) model how to record each example of fantasy and realism. Monitor students’ work as they go about it.

Focus Skill: Fantasy and Realism

Display the Fantasy and Realism pictures and ask learners questions about them. (What makes them fantasy or real)

Explain that fantasy involves events that couldn’t happen in real life, while realism involves events that could happen or that have happened.

Read aloud “Yes, It Can Really Rain Frogs!” asking students to pay attention to real events as they listen. (graded listening num 2/10)(p357)

FA: Have students suggest real life events they think could account for frogs falling from the sky.

Ask the following to the learners and have them answer orally:

1. Might fish falling from the sky be a fantasy or a real event? Explain your answer.
2. What causes snakes, frogs and fish to fall from the sky?
3. What clues tell you that the events in the last section really occurred?

FA: Have the students explain how the author presents unusual events in the selection.

Week 9 Sessions 1 & 2

Building Background and Vocabulary

Remind students that all stories in this theme deal with extraordinary events. Now they will read *Heat Wave!* A tall tale about how a Kansas farm girl's quick thinking ends an amazing heat wave. Discuss with students the effects a heat wave may have. Then use "What is a Heat Wave!" on Anthology pp. 358-359 to build background and introduce Key Vocabulary.

Use transparency 3-21. Model how to use context clues to find the meaning of keywords. Ask learners to locate context clues and define each Key Vocabulary word.

FA: Display the pictures and ask learners to match them with the vocabulary words.

Have them write the keywords' definitions in their vocabulary copybook.

C.W: PB p. 246

H.W: Review the keywords and put each in a sentence. .

Sessions 3 Page 361

TEACH:

Remind students that this story is about a creative way to beat a heat wave.

Have students preview the selection by looking at the illustrations. Ask students to predict some challenges the characters will face.

FA: As students read, have them evaluate what makes the tall tale and its illustrations enjoyable and funny. Ask students to note details are realistic and which are too zany to happen in real life. Students can evaluate and record if and why they feel the author has succeeded in entertaining the readers of Heat Wave!

Page 362

4. Why does the narrator holler for Ma and Pa and Hank?

Because she wants them to see the heat wave and the strange thing that happened to the geese.

5. What events does the author create to show that this is no ordinary heat wave?

The mercury blasts out of the thermometer, and the flowers crawl under the porch.

6. How would you describe the expression on the girl's face in this illustration?

Amazed, puzzled, not believing her eyes...

TEACH:

Explain that tall tale is a type of folktale. Though it may include some factual details, at its center is outlandish exaggeration, also called hyperbole.

The author might exaggerate elements of plot, setting, or character to make the story funny. Some details might be outright nonsense.

A tall tale might describe a far-fetched origin of a place such as a river or a tunnel. Its characters might be based on real people, such as Annie Oakley, or legendary heroes like Paul Bunyan, or ordinary characters who do ordinary things.

Session 4

In small groups, have students look for details of plot, characterization, and setting that show exaggeration and humor. FA: They might use a chart like this one:

Plot	Setting	Characters
Corn is popping in the field	Ground is too hot for cows to stand on	They are strong enough to mix a giant batch of bread dough

As a class, discuss details students have found and how details would differ in a realistic story. Monitor the students' answers and give immediate feedback to those who participate and answer the questions orally.

Session 5 Page 364

Why do you think the characters don't try to unsnag the Heat Wave!

How does the author show that the narrator can think quickly?

She is the one who thaws out the frozen dog.

- Teacher/student Modeling

Explain that good readers evaluate a story by looking at its weaknesses and strengths. Suggest that students ask themselves questions like these:

- In the author's effort to be funny, does she make the story too silly?
- Is there so much exaggeration that the story is hard to follow?

Page 365

TEACH: Fantasy and Realism

Tell students not to believe everything they read!

Authors sometimes mix realistic, believable details with unbelievable details. This can add humor to the story.

Write sentences on the board and ask the learners to decide whether they are realistic or a fantasy. The students should be able to explain why.

The teacher should ask the learners to provide her with sentences that can be considered realistic and those that are fantastical. FA: The learners should be able to explain the difference using their own words.

Page 366

1. Why do you think the author tells about the cows now?

To set up the joke of putting butter on the popcorn.

2. How do the narrator's actions here connect with earlier ones?

By solving the popcorn problem, she show quick thinking just as she did with the hound.

3. Does it make sense that people are at drive-in movie at midday in a heat wave? Why did the author include this?

No; this is an excellent example of nonsense that runs through the story.

Session 6

Page 367

1. How might Hank feel about his sister's quick thinking?

What is the order of events so far? Could any be left out without wrecking the story?

2. Geese get cooked, heat wave hits farm, corn pops, dog freezes and thaws, hot cows are “milked”. Popcorn is loaded into trucks, butter is poured over it, popcorn is sold. The geese and the dog could be cut; other items are linked and must remain for the story to make sense.

Have students take turns modeling Evaluate and other strategies they used.

- Discussion options

You may want to bring the whole class together to do one of these activities:

- Review Predictions/Purpose: Have students compare the story so far with their predictions, making any revisions needed.
- Share Group Discussions: have students share their literature discussions.
- Summarize: have student use their Fantasy/Realism charts to summarize the events of the story so far.

FA:

Literature Discussion
1. How do the illustrations add to the story? Would a different style of illustrations work?
2. If this tale were about a heat wave in your neighborhood, how would the events be similar or different?
3. Why might some people think that writing a funny story is more difficult than writing a serious one?

4. Do you think the story would make a good movie? A video game?

FA: If students have completed the questions properly, and they have understood the events go ahead and continue reading the rest of the story independently and cooperatively.

Page 368

1. What effect does the heat wave have on the oats and the cows?

It dries out the oats and makes the cows steam and singes their coats.

2. How well does the narrator make the best out of bad situations?

Example: she does well, she uses the ruined milk to butter popcorn and the ruined oatmeal as glue.

Page 369 Review:

Remind students that they can better see the relationship between two or more events, characters or details by comparing and contrasting them.

Comparing involves finding similarities, and contrasting involves finding differences. A Venn diagram can help organize likeness and differences.

Using a Venn diagram, model comparing and contrasting details from the popcorn and the oatmeal scenes.

In pairs, have students make a Venn diagram to compare and contrast how the heat wave affects two kinds of animals. Discuss the answers that the students have written and keep

record in the progress cards in order to check if any of the learners need attending to in the given matter.

Session 7 Page 370

1. What does the narrator mean when he says I figured it was time to take on the Heat Wave?

She is going to try to get rid of it. Until now, she has been dealing with the problems the Heat Wave has caused.

2. How is the narrator's idea to attract cows similar or different from the usual farming practice?

Farmers usually want to chase cows away.

3. Why might the author have the dough roll over chickens and pick up the tractor and the mule?

It is to build suspense and humor.

Page 371

- Review

Ask volunteers to identify the main characters and the setting of Heat Wave!

Have students identify the problem and the solution of the plot.

FA: As a class, discuss how the story might be similar and different if the plot was changed so that a blizzard hit the farm?

Week 10 Session 1

Display proofreading transparencies on the board and ask learners to find the mistakes and correct them. (We can photocopy it and give it to the learners)

Session 2

Focus Skill: Fantasy and realism. Remind learners that fantasy involves events that couldn't happen in real life, while realism involves events that could happen or that have happened. Then, complete the graphic organizer on transparency 3-22 with learners (peer assessment: the students can correct each other's papers and explain why the responses given are wrong or correct).

Page 372

Ask students to model their evaluations of the author's choice to let the narrator fail in this attempt to defeat the heat wave. If necessary, use these prompts:

- Are these good reasons for letting the girl try and fail?
- Does it show anything interesting about the character?
- Does it keep the story moving or slow it down?

Page 374

1. What does the author mean when she writes that all that yeast had caused their spirits to rise?

It's a joke; if yeast causes bread to rise, then it should help lift a mood.

2. What is realistic about the planting of the lettuce? What is far-fetched?

The author doesn't tell how the lettuce cools the air. Based on the story so far, do you think the explanation will be scientific? Why or why not?

It is likely to be a joke.

Page 375 TEACH:

Explain that illustration for Heat Wave! Reflect somewhat surrealistic style of art. In this dreamlike style, everyday objects may be exaggerated in size and shape or placed in unlikely situations.

Because tall tales include exaggerations, surrealistic illustrations can enhance the humor and the over-the-top story events.

Practice

Have students turn to pages 362-363. FA: Model finding some surrealistic elements of art.

Divide the class into small groups. Assign each group a two-page illustration. Ask the students to locate surrealistic elements such as unusual size, shape or placement of objects and characters.

Discuss the groups' findings in class. Ask students to comment on how some surrealistic elements help make the story clearer or funnier. Give immediate feedback to the students and identify any misconceptions at this point in the story.

1) What causes the heat wave to disappear?

The cold caused by the iceberg lettuce.

2) How might the narrator have fixed her mistake of planting too much lettuce?

She could have pulled some up or thought of a different solution, as she has done before.

3) Do you think the author had the idea for the ending in mind all along or thought of it after most of the story was in place? Give reasons.

4) What would you expect to happen to geese, corn and cows and oats in a real heat wave?

5) How did the farm look before and after the Heat Wave?

Use the strategies learned.

Session 4

As a paper pencil formative assessment, have the students answer the following questions:

1. What qualities make the girl so good at fighting the Heat Wave?
2. How is the Heat Wave like a character in the story? If the heat wave could speak, what could it say?
3. Many scenes in this selection exaggerate an ordinary event until it becomes amazing. Give three examples.
4. If the farm had been out of lettuce seeds, how else could the girl have defeated the heat wave?

5. Before the heat wave, the girl's brother teased her that girls couldn't be farmers.

What do you think he says about her now?

Invite students to share their personal responses to heat wave. Discuss responses as a group.

Session 5

Pair work: (Fantasy and realism)

CW: PB pp. 249-250

Correction of CW

Session 6

- Spelling: /ed/ and /ing/ endings
- Display the new 20 words on the board.
- Discuss their meaning and put them in meaningful sentences orally.

Do PB pp. 252-253

H.W: PB p. 254

Graded spelling

Week 11

Sessions 1 & 2

- Grammar: Present/ past/Future

- Display the following sentences on the board:
- I look at the chart.
- I looked at the chart.
- I will look at the chart.
- Remind learners that the tense of a verb tells when something happens. (present: action that is happening now- past shows action that has already happened- future shows actions that is going to happen)
- Use transparency 326-327 and do the exercises together.
- Provide them with verbs and ask them to give sentences using the correct tense and time-order word.

Do PB pp. 257-258

Graded CW PB p. 256

Session 3

Writing: Do topic sentence and details sheet (to be sent)

Week 11 Session 4 and 5

Do fantasy and realism sheets + correction (to be sent)

Week 12 Session 1

Writing: Writing a descriptive paragraph of a person using the list of words that we provided them with in unit 2. (drafts 1 and 2)

APPENDIX III

UNIT PLAN: CONVENTIONAL ASSESSMENT GROUP

UNIT PLAN: CONVENTIONAL ASSESSMENT GROUP

Class Grade 4
 Unit 3
 Title of Theme That's Amazing
 Weeks 5- 12
 Number of periods 50

Unit Plan Matrix

Duration	Selections	Literary Focus	Grammar	Vocabulary	Writing	FA/SA/ Presentations
Weeks 5 —8	The Stranger	Noting details	Action verbs	Autumn- draft- etched- frost- mercury- peculiar- thermometer- timid	Writing a descriptive paragraph	

Weeks 9 and 12	Heat Wave	Fantasy and realism	Main and helping verbs: has and have Present/past/ Future tenses	Affected-horizon-miscalculated-singe-temperature-weather vane	Writing a descriptive paragraph	Summative Assessment
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The abilities to be emphasized in the two stories are:

- Cause and effect
- Drawing conclusions
- Noting details
- Problem solving
- Making inferences
- Sequence of events
- Making judgments
- Compare and contrast
- Story structure

Week 5 Session 1

Theme opener: Read aloud and write the theme title and quote on the board: “That’s Amazing” and display the photos on amazing things about the world. (to be sent)

“If sunlight fell like snowflakes,
gleaming yellow and so bright,
we could build a sunman,
we could have a sunball fight....”

- Frank Asch

Use the following questions to prompt discussion about the quote and the photos:

- 7- What does the word amazing mean?
- 8- What does the quotation by Frank Asch have to do with the title of the theme?
- 9- Describe what a sunman and a sunflake would look like.

Ask volunteers to read aloud the author’s letter on Anthology p. 294, and 295.

5. Tell your friends about something amazing that has happened to you.
6. What is the most amazing thing you have ever heard?

Session 2

Story 1: The Stranger

Tell the students that they are going to read a retelling of a Native American folktale about how the seasons came to be.

Explain that in Indian Summer refers to a period of mild weather in late autumn.

Explain to the learners the following about noting details:

- Details help readers see, hear, and feel events in a story
- Details can give readers clues about the author's viewpoint
- Determining which details are important helps readers better understand the story

Session 3

Focus Skill: Noting Details

TEACH:

Read "Nanabozho Brings the Seasons" aloud and ask the following questions:

4. What details help you see what happens where Nanabozho runs?

Sample answer: a patch of colorful flowers sprout where his moccasins touch the earth; the animals welcome him; when he laughs pulls back to show Sun.

5. What do the details of the story tell you about Peepaukawgis?

She is jealous of his brother and angry at how the animals greet him; he acts spitefully in bringing sleet and snow to the land.

6. How does Peepaukawgis bring about foul weather?

He picks up handfuls of water from the river, throws them into the air, and calls on the winds to bring bad weather.

Sessions 4 & 5

Building Background and Vocabulary:

Tell students that the title of the theme is That's Amazing! It contains stories about wondrous people and events. Read aloud "When the Leaves Fall" on Anthology pp. 298-299 to build background and introduce Key Vocabulary.

Use transparency 3-1. Have learners use context clues to find the meaning of the keywords. Ask learners to locate context clues and define each Key Vocabulary word.

TEACH:

Pass around and check if the learners are able to locate context clues and take notes inside the record book inside the profile of each and every learner.

Then, ask them to write the keywords' definition in their vocabulary copybook.

-Display the pictures and ask them to match the vocabulary words to the pictures.

Classwork: PB p. 211.

HW: Review vocabulary list.

Sessions 6 & 7

Let learners read aloud page 302, and then try to retell the story in their own words.

Page 302

3. Which words provide information to when the story takes place?

When summer turned to fall

4. How has the author created suspense as this page ends?

By saying: we don't know what the farmer has hit

TEACH:

Tell students that point of view is the angle from which a viewer has a scene.

Point out that artist Chris Van Allsburg incorporates unusual points of view in his illustrations.

Explain that an unusual point of view can add drama to an illustration and helps the artist express a certain mood.

Have students determine the point of view in the illustration on page 303.

3. Where does the viewer seem to be located? This viewpoint provides a peaceful and relaxing mood to begin the story.
4. Have students discuss the illustrations in "The Stranger". Have students identify where the viewer is located in each, what mood the illustration creates, and how the artist uses point of view to draw viewers into the scenes.

Page 304

4. In the first two sentences, how does the author continue to create suspense?
It seems as if the man lying in the road might be dead.
5. Does the stranger act as you would expect?
No, it isn't normal to try to run away after being hit by a truck.
6. What do the actions of the farmer show about his nature?

He is caring and sensible and wants to help the stranger.

The teacher can have the learners answer the questions orally, on the chalkboard or the copybooks.

TEACH:

Explain that reading a fantasy requires an active reading technique whereby readers make sure that they understand the material before they get bogged down and confused.

Ask the students to read page 304 silently and ask themselves if they understood everything they read (self-assessment; self-efficacy).

Check with the learners by having a group discussion about how they were able to decide whether they understood the contents of what they read or not. The students are supposed to say that they asked themselves questions such as:

- What is happening?
- Why is it happening?

Page 305

Remind students that cause and effect is the reason an event happens and an effect is the result of a cause.

Readers can ask questions to identify causes and effects:

- Why did it happen?
- What happened?

Clue words and phrases help signal cause-effect relationships. Clue-words include: so, since and as a result.

Page 306

Ask the following questions as you go about the selection. The teacher can give these questions as an assignment and collect them the next day.

4. How does the illustration place you in Katy's shoes?

It gives the reader the same point of view as Katy when she is peeking through the door to try to see the stranger.

5. How does the author establish the oddness of the stranger?

With details about his odd clothing and his inability to talk.

6. The broken thermometer is a strange detail. What do you think it means?

Answers will vary.

Week 6 Session 1

Page 307 TEACH:

Remind students that the details are important to a story.

Details help readers understand characters and events, evaluate characters and picture the setting.

Have someone read the second paragraph on page 306 aloud. Discuss the details in class orally.

The stranger is mysterious

Odd, rough leather clothing, looks like some kind of hermit. Doesn't seem to understand questions, his temperature doesn't show on the thermometer.

Page 308

Ask the following questions and have the students answer them orally.

7. What general statement can you make about the stranger based on the details about the cold draft and the broken thermometer?

The stranger is somehow connected with cold air.

8. Think about the author's intended audience. Why do you think he often tells what Katy sees?

To give the story a child's point of view and appeal to young children.

9. The rabbits seem to know something that they know Baileys do not.

Possibly the identity of the stranger.

Page 309

3. What is the stranger's problem? What might happen when he solves it?

He can't remember who he is; he might be leaving.

4. Was it wise of the Baileys to welcome a stranger into their home?

Answers will vary.

Have students take turn in modeling the strategies they learned (asking questions...)

Have students review their predictions about the stranger's identity and revise them if necessary. Discuss ways students monitored their reading and clarified their reading and the confusing parts.

Have students share their literature discussions. Listen to the answers they provide and give immediate feedback. Direct the students' responses in case they indicate confusion – by asking further questions.

Assignment card
<p style="text-align: center;">Literature Discussion</p> <p>Within small groups, use the questions below along with any others you thought of to discuss the story:</p> <ul style="list-style-type: none">- If you were describing this story to a friend who had not read it, what words would you use?- How would you feel if this particular stranger were staying at your house?- How might the story be different if it were set in another season, such as winter?- Is it possible for someone to consider this story not strange? Why or why not?

Session 2 Page 310

3. Why do you think the stranger doesn't tire or sweat even though he is working hard?
4. Why does the author say that the stranger stared at the geese like a man who had been hypnotized?

Page 312

3. What detail shows that the farmer Bailey is wrong about identifying the stranger as a hermit?
4. "Trees in full leaf aren't usually thought of as a "drab" and ugly", why does the author use such words?

To show how uncomfortable the stranger is.

TEACH:

Define fantasy as a form of literature that features unlikely or impossible characters, settings, and/or events.

Fantasy may involve magic, as in many fairy tales and folktales.

Explain that ghost stories are a form of fantasy, and so is most science fiction.

Ask students to brainstorm a list of elements that make *The Stranger* a fantasy.

Tell the students that they have to differentiate between fiction and fantasy; have them name the elements that would help in the process of discrimination.

3. What do you suppose happened to the leaf the stranger blew on? Why do you think the author does not explain?

It turned red or yellow; the author wants readers to figure out the stranger's identity for themselves.

4. Are you surprised that the air turned cold and the leaves changed when the stranger left? Why or why not?

No; he is clearly connected to the changing of the season.

TEACH:

Have students use their detail maps to summarize main ideas and details for the story so far.

Bring the classroom together to do one more activity:

Use the strategies when reading the story (story structure/summarize/ sequence of events)

- Drawing conclusions:

Tell students that authors do not always say everything they want their readers to know. Sometimes the readers must draw conclusions from details to figure out what the author does not explain.

Have students skim pages 306-315 for details about who the stranger is.

Create with the students the equation below. Have the students provide with the details and then draw a conclusion about the stranger's identity.

The doctor's thermometer breaks when used on the stranger

+

Rabbits seem to know him

+

The stranger blows on soup and causes a cold draft

+

The stranger does not sweat when he works hard

+

Green leaves upset the stranger

=

?

Session 4

Page 316

4. How does the author show that time has passed since the stranger first arrived?

With the phrase: every autumn since the stranger's visit.

5. Why do you suppose the colors at Bailey's farm are the brightest around?

The stranger loves colorful leaves and he provides his friends with the brightest ones.

6. Does it make sense that the stranger's message would be etched in frost?

Yes, the stranger brings about fall changes in nature, and frost is a sign of fall.

- Discussion options:

Bring the entire class together to do one more activity:

- Review Predictions/Purpose: have students review and explain why their predictions were accurate or not.

Session 5

Do the following questions in the classroom – give as assignment.

1. What is the Bailey family like? Use details from the story to support your description.
2. What are the first few clues that tell you that something is unusual about the stranger?
3. The stranger feels that something is “terribly wrong” when he sees green leaves on the trees. What do you think is wrong?
4. Who do you think the stranger is? List three clues that can help you guess his identity.
5. If the stranger stayed for a while in the area where you live, what effect do you think he would have on the climate?

Session 6 Week 7 Sessions 1 and 2:

Writing: Where do you think the stranger goes after he leaves the Bailey’s farmhouse?

Make a drawing of the stranger in the place where he stays next or lives during the rest of the year. You might want to draw a picture that is somewhat mysterious, like the ones Chris Van Allburg draws. (Individual work)

Draw a picture and write a descriptive paragraph using sensory details.

(Learners can read aloud their paragraphs. Encourage them to use the sensory words that we gave them in unit 2) (CCC 5)

Session 3

Focus Skill: Noting Details (after reading the story)

Remind learners that details describe people, places, and events in a story. They allow the reader to see, hear, and feel. Some details are more important than others.

Have students follow in their books as we read aloud p. 306-308.

Then, complete the graphic organizer on transparency 3-2 with students.

Session 4

Pair work: PB p. 214-215

Correct CW

H.W: Think About the Selection: Answer questions p.318 in comprehension c.b

Sessions 5 & 6

- Structural Analysis: Compound Words
 - Introduce the skill p. 323C in Teacher's Edition.
 - Define compound words. Explain that a word made up of 2 smaller words is called a compound word. Point out that often it is possible to figure out the

meaning of a compound word by combining the meanings of the 2 smaller words.

- Activity: Write these words on index cards: basketball- pancake- backyard- airplane- notebook- watermelon- postcard- rainbow- understand.
- Cut the cards into 2 parts. Have learners work together to match parts and write a sentence with a compound word formed from their word parts. Have learners read their sentences aloud.
- Spelling: Compound Words
- Display the 20 new words on the board. Discuss their meaning and put them in meaningful sentences orally.

Do PB pp. 217-218

H.W: PB p. 219

Week 8 Session 1

- Grammar: Action verbs
- Refer to 323I-324J in TE
- Use transparencies 3-6 and 3-7 to introduce action verbs.
- Activity: Invite volunteers to come up and mime actions for their classmates to identify. (run- walk- hop- draw- sing- dance- skip- clap- shake- nod)
- Do PB pp. 221-222-223

Session 2

- Writing : How would respond to the stranger if he had visited you. Write sentences describing what might happen. Each sentence should include an action verb. (Ask them to share their sentences)

Sessions 3 and 4

Focus Skill: Compare and contrast

Explain that comparing means showing similarities

Contrasting means showing differences

Comparing one thing with another can help a reader remember information.

Draw a Venn-Diagram on the board. Ask learners restate the explanation that was given.

CW: PB p.

Sessions 5 and 6

- Grammar: Main Verbs/ Helping Verbs
- Display the following sentences: I live on a green island. I had lived on a green island. Ask learners to compare the two sets of underlined words. (One verb is made up of one word; the other, two). Put a double line under the main verb and circle the helping verb in the second sentence. Then review these concepts:
- When a verb has more than one word, the main verb shows the action. A helping verb works with the main verb. The verbs am, is, and are help other

verbs show action that is happening now. The verbs was, were, and had help other verbs show actions that happened in the past.

- Provide them with examples from the selections and ask them to identify the main and helping verbs.
 - Have learners suggest a list of ten action verbs, and then ask them to add a helping verb and use them in a sentence paying attention to subject-verb agreement.
- Use transparency 3-16/ 3-17 and do the exercises together.

Do PB pp. 241-243 PB p. 242 (CW/)

Session 7

Writing a descriptive paragraph of a place (Drafts 1 and 2)

Week 8

Session 1 and 2

Summative assessment + correction

Session 3 & 4

Activity: What if you could communicate with a character in *The Stranger* or *Cendrillon*?

What would you like to ask the character? What would you like to tell him or her?

- Write a friendly letter to a story character. (Learners will be provided with colored A4 papers to write their letters.) (to be displayed in class)

Story 2: Heat Wave

Session 5 & 6

Ask students to read the “Strategy Focus” and tell them that evaluating how well an author tells a story can help you think about what makes each story element work well or not so well.

Graphic organizer

Tell students that Heat Wave! contains both fantasy and realistic elements. Using the Fantasy/Realism Chart on Practice Book page 247 will help them keep track of both kinds of details.

Display the transparency (3-22) and ask them to fill out the blanks.

Focus Skill: Fantasy and Realism

Display the Fantasy and Realism pictures and ask learners questions about them.

(What makes them fantasy or real)

Explain that fantasy involves events that couldn't happen in real life, while realism involves events that could happen or that have happened.

Read aloud “Yes, It Can Really Rain Frogs!” asking students to pay attention to real events as they listen. (graded listening num 2/10)(p357)

Have students suggest real life events they think could account for frogs falling from the sky.

Ask the following to the learners and have them answer orally:

4. Might fish falling from the sky be a fantasy or a real event? Explain your answer.
5. What causes snakes, frogs and fish to fall from the sky?
6. What clues tell you that the events in the last section really occurred?

Have the students explain how the author presents unusual events in the selection.

Week 9

Sessions 1 & 2

Building Background and Vocabulary

Remind students that all stories in this theme deal with extraordinary events. Now they will read Heat Wave! A tall tale about how a Kansas farm girl's quick thinking ends an amazing heat wave. Discuss with students the effects a heat wave may have. Then use "What is a Heat Wave!" on Anthology pp. 358-359 to build background and introduce Key Vocabulary.

Use transparency 3-21. Ask the learners to fill out the missing blanks.

Display the pictures and ask learners to match them with the vocabulary words.

Have them write the keywords' definitions in their vocabulary copybook.

C.W: PB p. 246

H.W: Review the keywords and put each in a sentence. .

Sessions 3 Page 361

TEACH:

Remind students that this story is about a creative way to beat a heat wave.

Have students preview the selection by looking at the illustrations. Ask students to predict some challenges the characters will face.

Ask students to note details are realistic and which are too zany to happen in real life.

Page 362

7. Why does the narrator holler for Ma and Pa and Hank?

Because she wants them to see the heat wave and the strange thing that happened to the geese.

8. What events does the author create to show that this is no ordinary heat wave?

The mercury blasts out of the thermometer, and the flowers crawl under the porch.

9. How would you describe the expression on the girl's face in this illustration?

Amazed, puzzled, not believing her eyes...

Page 363

TEACH:

Explain that tall tale is a type of folktale. Though it may include some factual details, at its center is outlandish exaggeration, also called hyperbole.

The author might exaggerate elements of plot, setting, or character to make the story funny.

Some details might be outright nonsense.

A tall tale might describe a far-fetched origin of a place such as a river or a tunnel. Its characters might be based on real people, such as Annie Oakley, or legendary heroes like Paul Bunyan, or ordinary characters who do ordinary things.

Session 4

In small groups, have students look for details of plot, characterization, and setting that show exaggeration and humor. Discuss the answers afterwards.

Session 5

Page 364

Why do you think the characters don't try to unsnag the Heat Wave!

How does the author show that the narrator can think quickly?

She is the one who thaws out the frozen dog.

- Teacher/student Modeling

Explain that good readers evaluate a story by looking at its weaknesses and strengths. Suggest that students ask themselves questions like these:

- In the author's effort to be funny, does she make the story too silly?
- Is there so much exaggeration that the story is hard to follow?

Page 365

TEACH: Fantasy and Realism

Tell students not to believe everything they read!

Authors sometimes mix realistic, believable details with unbelievable details. This can add humor to the story.

Write sentences on the board and ask the learners to decide whether they are realistic or a fantasy. The students should be able to explain why.

The teacher should ask the learners to provide her with sentences that can be considered realistic and those that are fantastical.

Page 366

4. Why do you think the author tells about the cows now?

To set up the joke of putting butter on the popcorn.

5. How do the narrator's actions here connect with earlier ones?

By solving the popcorn problem, she shows quick thinking just as she did with the hound.

6. Does it make sense that people are at a drive-in movie at midday in a heat wave? Why did the author include this?

No; this is an excellent example of nonsense that runs through the story.

Session 6 Page 367

3. How might Hank feel about his sister's quick thinking?

What is the order of events so far? Could any be left out without wrecking the story?

4. Geese get cooked, heat wave hits farm, corn pops, dog freezes and thaws, hot cows are “milked”. Popcorn is loaded into trucks, butter is poured over it, popcorn is sold. The geese and the dog could be cut; other items are linked and must remain for the story to make sense.

Have students take turns modeling Evaluate and other strategies they used.

- Discussion options

You may want to bring the whole class together to do one of these activities:

- Review Predictions/Purpose: Have students compare the story so far with their predictions, making any revisions needed.
- Share Group Discussions: have students share their literature discussions.
- Summarize: have student use their Fantasy/Realism charts to summarize the events of the story so far.

Page 368

3. What effect does the heat wave have on the oats and the cows?

It dries out the oats and makes the cows steam and singes their coats.

4. How well does the narrator make the best out of bad situations?

Example: she does well, she uses the ruined milk to butter popcorn and the ruined oatmeal as glue.

- Review

Remind students that they can better see the relationship between two or more events, characters or details by comparing and contrasting them.

Comparing involves finding similarities, and contrasting involves finding differences. A Venn diagram can help organize likeness and differences.

Using a Venn diagram, model comparing and contrasting details from the popcorn and the oatmeal scenes.

In pairs, have students make a Venn diagram to compare and contrast how the heat wave affects two kinds of animals.

Session 7 Page 370

4. What does the narrator mean when he says I figured it was time to take on the Heat Wave?

She is going to try to get rid of it. Until now, she has been dealing with the problems the Heat Wave has caused.

5. How is the narrator's idea to attract cows similar or different from the usual farming practice?

Farmers usually want to chase cows away.

6. Why might the author have the dough roll over chickens and pick up the tractor and the mule?

It is to build suspense and humor.

Page 371

- Review

Ask volunteers to identify the main characters and the setting of Heat Wave!

Have students identify the problem and the solution of the plot.

Week 10 Session 1

Display proofreading transparencies on the board and ask learners to find the mistakes and correct them. (We can photocopy it and give it to the learners)

Session 2

Focus Skill: Fantasy and realism. Remind learners that fantasy involves events that couldn't happen in real life, while realism involves events that could happen or that have happened. Then, complete the graphic organizer on transparency 3-22 with learners.

Page 372

Ask students to model their evaluations of the author's choice to let the narrator fail in this attempt to defeat the heat wave. If necessary, use these prompts:

- Are these good reasons for letting the girl try and fail?
- Does it show anything interesting about the character?
- Does it keep the story moving or slow it down?

Page 374

3. What does the author mean when she writes that all that yeast had caused their spirits to rise?

It's a joke; if yeast causes bread to rise, then it should help lift a mood.

4. What is realistic about the planting of the lettuce? What is far-fetched?

The author doesn't tell how the lettuce cools the air. Based on the story so far, do you think the explanation will be scientific? Why or why not?

It is likely to be a joke.

Page 375 TEACH:

Explain that illustration for Heat Wave! Reflect somewhat surrealistic style of art. In this dreamlike style, everyday objects may be exaggerated in size and shape or placed in unlikely situations.

Because tall tales include exaggerations, surrealistic illustrations can enhance the humor and the over-the-top story events.

Practice: Have students turn to pages 362-363.

Divide the class into small groups. Assign each group a two-page illustration. Ask the students to locate surrealistic elements such as unusual size, shape or placement of objects and characters.

Session 3

1) What causes the heat wave to disappear?

The cold caused by the iceberg lettuce.

2) How might the narrator have fixed her mistake of planting too much lettuce?

She could have pulled some up or thought of a different solution, as she has done before.

3) Do you think the author had the idea for the ending in mind all along or thought of it after most of the story was in place? Give reasons.

What would you expect to happen to geese, corn and cows and oats in a real heat wave?

4) How did the farm look before and after the Heat Wave?

Use the strategies learned.

Session 4

SA (graded): Have the students answer the following questions:

6. What qualities make the girl so good at fighting the Heat Wave?
7. How is the Heat Wave like a character in the story? If the heat wave could speak, what could it say?
8. Many scenes in this selection exaggerate an ordinary event until it becomes amazing. Give three examples.
9. If the farm had been out of lettuce seeds, how else could the girl have defeated the heat wave?

10. Before the heat wave, the girl's brother teased her that girls couldn't be farmers.

What do you think he says about her now?

Invite students to share their personal responses to heat wave. Discuss responses as a group.

Session 5

Pair work: (Fantasy and realism)

CW: PB pp. 249-250

Correction of CW

Session 6

- Spelling: /ed/ and /ing/ endings
- Display the new 20 words on the board.
- Discuss their meaning and put them in meaningful sentences orally.

Do PB pp. 252-253

H.W: PB p. 254

Graded spelling

Week 11

Sessions 1 & 2

- Grammar: Present/ past/Future
- Display the following sentences on the board:

- I look at the chart.
- I looked at the chart.
- I will look at the chart.
- Remind learners that the tense of a verb tells when something happens. (present: action that is happening now- past shows action that has already happened- future shows actions that is going to happen)
- Use transparency 326-327 and do the exercises together.
- Provide them with verbs and ask them to give sentences using the correct tense and time-order word.

Do PB pp. 257-258

Graded CW PB p. 256

Session 3

Writing: Do topic sentence and details sheet (to be sent)

Week 11 Session 4 and 5

Do fantasy and realism sheets + correction (to be sent)

Week 12 Session 1

Writing: Writing a descriptive paragraph of a person using the list of words that we provided them with in unit 2. (drafts 1 and 2)

Final session: Summative Assessment