Hebron University Faculty of Graduate Studies

The Influence of Question Types and Wait-Time On the Patterns of Interaction in the Palestinian Classroom

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Dedication

To my mother and to the soul of my father

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Loads of thanks are solely extended to my supervisor Dr. Raghad Dwaik whose efforts led to the success of this work. She guided me and helped me in every detail providing me with her advice and Patience. She was generous with her support of references and any kind of material she found.

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Contents

Content	page	
Dedication Acknowledgement		I II
Contents		III
List of appendices		V
List of tables		VI
Abstract		1
Chapter one	T / 1 /	7
	Introduction The section for section de	7
	Theoretical framework	7
	Statement of the problem	9 9
	Significance of the study	
	Purpose of the study	10 11
	Research questions Limitations of the study	11
	Definition of key terms	12
Chapter two	Demittion of key terms	15
Literature Review		15
Encluture neview	Question Types' Treatment in classroom	10
	researches	15
	Wait- Time treatment in classroom research	16
	The relation between Question types and	10
	other affective factors/modifications	19
	Classroom Research: developments and	
	Studies	24
	Developments in Language Classroom	
	Research	25
	Conclusion	26
Chapter three		
Methodology		28
	Introduction	28
	Population and sample	28
	Research design	29
	Instrumentation	31
	Classroom observation	31
	Procedures	32
	Stage one	32
	Stage two/ phase one	33
	Stage two/ phase two	34
	Validation of the questions which	
	were asked in the classroom	34
	Interviews and interview questions	35
	Validation of the interviews and	

	the questions of the interviews	36
	The sample of the interviews	
	Validation of the questions of the	
	Interviews	36
	Conclusion	36
Chapter four		
Results		37
	Classroom observation	37
	Stage one	37
	Stage two / phase one	45
	Stage two / phase two	50
	Results of the interviews	57
	Conclusion	60
Chapter five		
Discussion		63
	Introduction	63
	Wait-time	63
	Question types	67
	Patterns of interaction	73
	Discussion of interviews' results	73
	Conclusion	74
Conclusion		76
Recommendations		77
Appendices		80
References		105

List of appendices

Appendix A	interview questions	80
Appendix B	Interviews	81
Appendix C	Data Collection sheets	91
Appendix D	Reading Texts	95
Appendix E	List of Referential Questions	104

List of tables

Table 3.1	Distribution of students' sample by stream and gender 29	9
Table 1.1	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day one 33	
Table 1.2	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day two 40	
Table 1.3	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day three 4	
Table 1.4	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day four 42	
Table 1.5	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day five 44	
Table 1.6	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage one/ day six 4:	
Table 2.1	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase one/ day one 44	
Table 2.2	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase one/day two 44	
Table 2.3	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase one/ day three	48
Table 2.4	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase one/ day four 49	
	A descriptive analysis of question types, wait-time f participants pertaining to stage two/ phase one/ day five	50
Table 3.1	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase two/ day one 5	
Table 3.2	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase two/ day two 52	
Table 3.3	A descriptive analysis of question types, wait-time and number Of participants pertaining to stage two/ phase two/ day three	: 54
Table 3.4	A descriptive analysis of question types, wait-time and number	:

Table 3.5	Of participants pertaining to stage two/ phase two/ day for A descriptive analysis of question types, wait-time and nur Of participants pertaining to stage two/ phase two/ day five	mber	
Table 3.6	A descriptive analysis of question types, wait-time and nur Of participants pertaining to stage two/ phase two/ day six		
Table 1 total n	A summary table shows the percentage of participation, umber of display and referential questions in stages one and	l two.	57
Table 4.1.a	A summary table for stage one	62	
Table 4.1.b	A summary table for stage two/ phase one	64	
Table 4.2.a	A summary table for stage two/ phase two	69	
Table 4.2.b	Percentage of participation	69	
Table 4.2.c	Difference in participation between males and females	71	

Abstract

Despite the adoption of the Communicative Approach in the Palestinian syllabus for the purpose of building the learners' communicative competence, most English teachers notice that Palestinian English learners hesitate to take part in classroom interaction probably due to their lack of proficiency in language use. This serious phenomenon could be due to several factors including the dense curriculum which, in turn, constitutes a heavy burden for students and teachers, the low proficiency of some teachers as well as the neglect of some teaching strategies (e.g. failing to vary question types or to provide enough wait-time, confining students to a passive role and using vague or complex language, etc).

Many researchers and writers such as Chaudron (1990) and Celce-Murcia (2001) have provided a thorough literature review of all issues and factors tackled in classroom research and in other types of related research. The researcher has drawn on the wealth of research evidence provided by these authors, hence deciding to shed more light on issues related to the Palestinian classroom such as the Variables: Question types and Wait-time.

The researcher believes that these two variables are decisive in determining the quantity and quality of the classroom interaction that takes place in the Palestinian context. In turn, this resulting interaction is essential in providing the input necessary for building the students' communicative competence through the processes of hypothesis formation and testing, the very goal of the communicative approach. For this purpose, a qualitative classroom research study was conducted to explore the extent to which teachers maintain a proper duration of wait-time and raise appropriate

question types in two secondary schools in the area of Se'ir (one for girls and one for boys).

The sample of the study may be divided into two categories: the first category includes ten high school English teachers who were interviewed. The second category, includes 263 eleventh Grade students- 101 boys and 162 girls- who were enrolled in eight separate sections both in the literary and scientific streams divided randomly as 3 scientific sections and 5 literary sections- enrolled in the academic year 2008-2009 in two schools in the town of Se'ir.

This study aims at finding answers for a set of questions pertaining to both stages of the research, i.e., the observation and the intervention stages; as well as for the follow up interviews.

Research Questions

Observation stage:

- How long do teachers of the Eleventh Grade Scientific stream (Girls' and Boys' school teachers) usually wait after asking a question?
- How long do teachers of the Eleventh Grade Literary stream (Girls' and Boys' school teachers) usually wait after asking a question?
- What types of questions prevail in the Eleventh Grade Scientific stream (Girls and Boys), referential or display?
- What types of questions prevail in the Eleventh Grade Literary stream (Girls and Boys), referential or display?

Intervention stage:

• What influence does extending the wait-time have on the quantity and quality of interaction among students in the eleventh grade scientific stream (Girls and Boys)?

- What influence does extending the wait-time have on the quantity and quality of interaction among students in the eleventh grade literary stream (Girls and Boys)?
- How does varying the types of questions influence students' interaction (scientific and literary in both schools)?

Research questions based on the interviews:

- Do high school English teachers think they allow proper wait-time after asking a question?
- Are high school English teachers aware of the different types of questions? Do they think they ask enough Referential Questions?
- Are high school English teachers willing to use / extend wait-time and vary question types between Display Questions and Referential Questions?
- What influence do they expect these two variables would have on the quantity and quality of interaction?

The study consisted of three major stages for collecting data. The first stage involved the observation of the natural treatment of the two variables by teachers. The second stage – intervention- consisted of two phases. In phase one the researcher extended the wait-time to 6 seconds, while in phase two she increased the number of referential questions to exceed the number of display questions while maintaining the extended wait time. During these phases the researcher tried to highlight the difference in interaction before and after extending the wait-time and varying the question types. The third stage involved conducting ten interviews that consisted of seven questions addressed to the high school English teachers (involved in stage one) who were asked about their treatment of the two variables and whether they wish to change any of the patterns they are currently involved in. The whole interaction was audiotaped and relevant data were transcribed and analyzed by means of a researcher's developed observation sheet. Results of this qualitative analysis were as follows:

- 60% of the English language teachers participating in this study normally allowed less than a second of wait-time after asking a question, but 20% of them maintained short wait-time (1-2 seconds). The students' participation is noticed to be 24.9 % in the literary stream and 37.1 % in the scientific stream in this stage.
- 2. Extending of wait-time invites more participation in both the scientific and literary streams and greater participation was noticed. For example, in the literary stream the students' participation increased to 28.2% of the total number of students in the literary stream in phase 1 of stage 2 and the scientific stream students' participation increased to 62.3% of the total number of students in the scientific stream who participated in the study.
- 3. In phase 2 of stage 2, through which the number of referential questions was consciously managed to be increased to exceed the number of display questions while maintaining the extended wait time to six seconds, the researcher found that the quantity of participation increased noticeably in both streams to become 80.35% of the total number of the scientific classroom, and 50.30% of the total number of students in the literary classroom. This result sheds light on the effect of introducing changes in these two variables on students' participation and the big difference that occurred in this phase when contrasting these percentages with those of

stage one when the scientific stream's participation was 37.13% out of the total number of students in the classes of the scientific stream, and the literary stream's participation was 24.9% of the total number of students in these classes of the literary stream who participated in the study.

- 4. An important finding was that the male students' participation was greater than that of the females'. The percentage of boys' participation was 38.7% of the total number of students involved in the study, but the girls' was 27.2% of the total number of students involved in the study. In the literary stream, boys were 34.9% but girls 20%. In the scientific stream boys' participation was 42.5%, while girls' participation was 34.5%. Boys participated more than girls in the same stream. In stage2 phase1, however, results changed, when girls' participation increased to 49.7%-(scientific 69.1% and literary 29.6%) of the total number of girls involved in the study, but boys' to 37.8%-, (scientific 48.7% and literary 26.8%) of the total number of boys involved in this study. In phase2 of stage2, girls' participation generally increased to 65.2% (scientific 84.8%, literary 45.6%) of the total number of girls participating in this study while boys' participation increased to 65.5% (scientific 75.9% and literary 55%) of the total number of boys who participated in this study.
- 5. The interviews revealed that 60% of the teachers, who were interviewed, do not realize the importance of wait-time, and more drastically, they do not have any idea about "Referential Questions". But they indicated an interest in trying to treat these variables more effectively.

The researcher recommends further future research on other influencing variables like teacher talk, motivation, feedback,

Chapter One

Introduction

Theoretical framework

Under the influence of the communicative paradigm, the processes, techniques, and activities that take place inside Palestinian classrooms have changed in orientation, thus motivating teachers to leave the traditional instructional techniques in favor of more advanced and interactive ones. Within the communicative paradigm, the learner is viewed as the centre of the learning process. In contrast, prior to the arrival of the communicative approach on the educational scene, classroom interaction assumed more traditional forms the most well known among which is the "Initiate, Response, Feedback" Theory (IRF). The teacher initiates with questions, then the learner responds and finally the teacher provides feedback. The teacher assumed the main role while the learner's role was confined to that of a listener or a passive observer (Chaudron, 1990).

Canale and Swain (1980) have argued that the goal of the communicative approach is the development of the communicative competence. They provide a detailed description of four categories within the communicative competence: **First**, grammatical competence, which means enhancing students' ability to produce and comprehend language at the sentence level; **second**, discourse competence, which means the ability to produce and comprehend language beyond the sentence level; **third**, the socio-linguistic competence, which focuses upon appropriateness in relation to context; and **fourth**, the strategic competence, which includes the strategies that the learners use in order to maintain the flow of interaction. Building the learners' communicative competence is the core of the communicative approach. Within this context, the Palestinian <u>English for Palestine series</u> writers have specified their communicative statement of purpose at the back cover of each edition of the 12 stages:

English for Palestine is a modern, communicative English course, which has been specially written for schools in Palestine. The 12 levels systematically develop competence in the four language skills ...

Despite the fact that the communicative approach has been adopted within the Palestinian curriculum, learners are still mostly quiet or hesitant to engage in classroom interaction, and consequently their communicative competence is still far from being attained, hence comes *this study which is intended to measure the impact of two variables that may influence classroom interaction, namely, Wait-time, and Question types (Referential and Display).*

Celce-Murcia (2001) describes the relationship between three types of classroom oriented research, namely, classroom research, action research and teacher research: "...the term classroom research refers to the location and the focus of the study. [Classroom research includes many aspects that influence interaction like wait-time, question types, teacher talk, feedback and many other issues] Teacher research refers to the agents who conduct the study. Action research denotes a particular approach, a codified but flexible set of reiterated procedures, for participants to conduct a research in their own settings."(p.492). This study represents an integration of the three research types since the researcher herself is a teacher who plans to conduct research in a classroom setting for the purpose of solving a particular pedagogical problem.

Many researchers conducted classroom research studies for different goals and from different perspectives e.g. to compare teaching styles, or to investigate contentbased instruction, etc. This research, however, investigates the influence of types of questions and wait-time on classroom interaction.

Statement of the problem

Although the learner-centered communicative approach is adopted in the Ministry of Education statement of goals for the new Palestinian curriculum, it is obvious that students' participation is still occasional and sporadic. This will definitely have adverse effects on the development of the students' communicative competence which is the ultimate goal of the whole curriculum. Engagement in interaction provides students with ample opportunities to formulate hypotheses, and to test them against the input, thus building their language proficiency further (Krashen & Terrell, 1983). This study will try to shed light on the reasons behind the learners' disengagement in interaction. Two of the possible factors behind this issue will be explored within this observational study, namely, Wait-time and Question type.

Significance of the study

The significance of this study stems from the importance of investigating what actually goes on inside the classroom because it could be drastically different from what is hoped (by syllabus designers and material developers) to be taking place. In other words, there could be a huge gap between the statement of purpose of the <u>English for Palestine</u> series and the practical situation in the classrooms. This assumed mismatch between the communicative syllabus goals and what is actually achieved in the reality of the classrooms could be due to specific factors influencing the Palestinian EFL setting such as the large classes which may be an obstacle in the face

of more and deeper learner involvement in classroom interaction. Hence, the manipulation of certain elements such as question types and/or the subsequent waittime may provide handy solutions for persisting problems. It is expected that the amount of student participation as well as the quality of that participation often increase." (p.188)

This study is significantly different from previous research studies in the classroom. unlike previous studies, it compared the different streams and genders of the same level of students, i.e., eleventh grade students. **First**, in this study, two variables were subject of observation and investigation (via intervention) – wait-time and questions types. **Second**, it is the first study of its kind conducted in Palestine. Palestinian classes are characterized by the dense curriculum, overcrowded classes, and also the division of students into streams. This division may justify the fact that classroom interaction is usually limited to a number of students who are usually proficient in the language and that weaker and hence slower students are left out because of the fast pace of the lesson which aggravates the problem and does not allow these learners to improve.

Purpose of the study

This study aims at highlighting the impact of wait-time and question types on the quantity and quality of students' participation in classroom interaction. It also sheds light on the change in interaction which results from intervening in these two variables, i.e., when offering longer wait-time or when asking questions of a more referential than display nature. This study also aims at probing teachers' perspectives with regard to the importance of these two variables and the possibility of their effective integration in the classroom.

Research Questions

The present study aims at finding answers for the following research questions which pertain to the three stages of research, i.e., observation, intervention; and interviews.

Observation stage:

- How long do teachers of the Eleventh Grade Scientific stream (Girls' and Boys' school teachers) usually wait after asking a question?
- How long do teachers of the Eleventh Grade Literary stream (Girls' and Boys' school teachers) usually wait after asking a question?
- What types of questions prevail in the Eleventh Grade Scientific stream (Girls and Boys), referential or display?
- What types of questions prevail in the Eleventh Grade Literary stream (Girls and Boys), referential or display?

Intervention stage:

- What influence does extending the wait-time have on the quantity and quality of interaction among students in the eleventh grade scientific stream (Girls and Boys)?
- What influence does extending the wait-time have on the quantity and quality of interaction among students in the eleventh grade literary stream (Girls and Boys)?
- How does varying the types of questions influence students' interaction (scientific and literary in both schools)?

Research questions based on the interviews:

• Do high school English teachers think they maintain proper wait-time after asking a question?

- Are high school English teachers aware of the different types of questions? Do they think they ask enough referential questions?
- Are high school English teachers willing to use / extend wait-time and vary question types between display and referential?
- What influence do they expect these two variables would have on the quantity and quality of participation?

Limitations of the study

This study suffers from the following limitations:

- i. First, the size of the sample is not big enough for generalizability purposes.
- Another influencing factor is that all subjects of the study come from the same geographical area. This may result in very similar learning and teaching behavior or in the use of similar teaching strategies among colleague teachers. In other words, the sample is NOT truly a random one and study results may only be generalized to similar students in similar settings.
- iii. The time of the study and the time limit for the researcher to collect the data is an additional limitation.

Definition of key terms

The following list includes the definitions of the key terms that are frequently mentioned and used throughout the study and including some terms defined by the researcher own words where citation were not available.

- Wait-time: refers to the duration of time given by teachers for learners after asking a question and how this duration affects students' interaction.
- Question types: Chaudron (1990) presents Long and Sato's (1983) distinction between "display" and "referential" questions. The "Display question" refers to asking about information that both the teacher and learner know, while the "Referential question" involves asking about new information that the teacher does not know. This kind of questions requires deeper thinking before answering. Examples of the two types of questions are provided in the tables of chapter four (Results).
- **Classroom research**: Celce-Murcia (2001) defines it as the research that refers to the location and the focus of the study. [Classroom research includes many aspects that influence interaction like wait-time, question types, teacher talk, feedback and many other issues]. Long (1980) defined classroom research as "all or part of whose data are derived from the observation or measurement of the classroom performance of teachers and students (p.3: cited in Celce-Murcia, 2001; p. 489).
- Action research: Celce-Murcia (2001) also states that Action Research denotes a particular approach, a codified but flexible set of reiterated procedures, for participants to conduct a research in their own settings. This kind of research is usually conducted to solve a problem.

- **Teacher research**: Teacher research refers to the research which is usually conducted by teachers whether this research takes place inside or outside the classroom itself (Celce-Murcia, 2001).
- **Participation**: students' initiation and attempts to take part in the classroom activities which may be through raising their hands or direct and spontaneous answers regardless of being wrong or right.
- Quantity of participation: the amount or number of students who attempt to take part in the activities of the lesson. The quantity of participation is calculated in this study by counting the number of students who raise their hands to answer.
- Quality of participation: it means to what extent students' answers are long (is the answer a single word or two or a full sentence), deep, grammatically correct and meaningful.
- **Classroom Interaction**: the different patterns of interaction that emerge in the classroom through students trials to participate which may have the form of Student Student, teacher student, or other patterns.

Conclusion

In this chapter, the researcher presented the major elements of her study like the theoretical framework, significance of the study, statement of the problem, purpose of the study, research questions, limitations of the study and the definitions of key terms.

Chapter Two

Literature Review

In the following pages the reader will be presented with the key studies which tackle the issue of classroom question types asked by the teacher and the time waited by the teacher after asking a question. Many researchers conducted close and relevant studies on the topics and variables treated in the current study.

Question Types' Treatment in classroom researches

Chaudron (1990) discusses the different terms used to refer to the two main types of questions used in a language classroom. Some L2 researchers discriminated "specific" and "general information" questions (Naiman et al, 1978). Other studies of L1 dealt with "closed" and "open-ended" questions (Barnes, 1969,1975; Chaudron, 1990).

Chaudron (1990) presents Brock's study which is related to Long et al.'s study (1984). In Brock's study, six high school ESL teachers were randomly assigned to one of three groups, two to an experimental question treatment group, two to an experimental wait-time group, and two to a control (praise feedback) group. Within this study, it was hypothesized that training two of the teachers in the use of referential questions would increase their referential use over display questions and that this would result in greater and more complex student participation. The classes of these teachers were videotaped in four stages: in a baseline observation, in a prepared common lesson, in a second common lesson following the different training treatments, and in a fourth observation of an ordinary teacher- determined lesson.

At the end of Brock's study, it was concluded that the teachers receiving training in question types produced significantly more referential questions than the control teachers following training. Another surprising conclusion was contrary to Brock's expectations. With the experimental question group and control groups combined, referential questions did not elicit significantly more student speech (in number of turns, utterances, or words per utterance) than display questions; there was a consistent tendency for display questions to elicit more student turns and a tendency for referential questions to elicit slightly more student utterances. In other words, referential questions motivate longer sentences, clearer and more real communication.

Wait- Time treatment in classroom research

In the same study and in the same way, Wait-time treatment is also hypothesized to have similar positive effects on learners' participation, which is consistent with L1 educational research (Rowe (1974) and Holley and King's (1971) cited in Chaudron, (1990).

Brock's conclusion for the wait-time training group is that the members of this group maintain significantly longer wait-time (comparing durations of more than three seconds against those of less than three seconds) in the observations following training. Nevertheless, the results of this longer wait-time didn't indeed show longer student utterances in their production. They kept answering briefly and with one or two words. When teachers do not give enough Wait-Time for learners to process a question and formulate an answer this forms a decisive reason for the lack of response from students. Tsui (1995) states that "Many teachers fear that lengthy Wait-time slows down the pace of teaching and leads to disruption in the classroom, or that they might appear to be inefficient and incompetent" (p.124, cited in Carter and Nunan's Cambridge Guide to Teaching English to Speakers of Other Languages, 2001). Therefore teachers often answer their own questions. Holley and King (1974) found that "if the teacher allowed longer Wait-Time after a learner made a mistake or after the teacher posed a question, the learner, then, was much better able to respond correctly." (Tsui 1995:124). However, this does not always mean that extending Wait-Time will necessarily improve students' responsiveness or participation. In a study of teachers' action research, it was found that excessive lengthening of wait-time exacerbated anxiety amongst students. To get rid of L2 learning anxiety or reduce it to a minimum, the teacher can provide opportunities for learners to rehearse their responses to a teacher's question by comparing notes with their partners or group members, or writing down their responses before presenting them to the rest of the class (p.124).

Long et al.'s study on Wait –Time in L2 classrooms was conducted in Hawaii. By training some teachers to wait systematically before evaluating a student response, the effect on learner utterances was studied. Van Lier (1988) presents the results of this study which indicate that increasing wait-time has a beneficial effect on the quality of learners' responses. He states that "the issue of Wait- Time is also very relevant to the investigation of Repair and correction in L2 classrooms, where it can be shown that longer wait-time increases opportunities of Self-repair." (p.66). Van Lier suggests that some delay of other- repair (both initiation and error-replacement) may be beneficial, since it would promote the development of self-monitoring and pragmatic adjustment which is essential to develop competence in the target language.

The same results of the two studies by Long and Sato (1983) and Brock (1983) were also discussed by Tsui (1995). First, she presents an example of interaction

between the native speaker (NS) and the non-native speakers (NNS) which showed that when the input provided by the NS is incomprehensible to the NNS, they enter into a negotiation of meaning phase in which the NNS asks for clarification, repetition or confirmation, resulting in a modification of the structure of interaction. Based on the previous findings, some researchers argue that this kind of negotiations provides optimal comprehensible input to the learner and facilitates L2 development. The following example shows how a question-answer structure may be modified in the process of negotiation,

1. T: ...what other advantages do you think you may have, if you were the only child in the family? (Question)

S: I'm sorry. I beg your pardon.

T: OK. Fine.

(Request for repetition)

T: Er, if you were the only child in your family, then (modified repetition) what other advantages you may have? What points, what other good points you may have? (Followed by lexical modification)

S: It's quieter for my study. (answer)

T: Yes? It's quieter for you to study. Yes? Any other?(confirmation check)S: No more.(confirmation)

(acknowledgement)

(Tsui 1995:18)

The researcher cites Barnes' (1969) influential study of L1 classrooms which differentiates questions with only one acceptable answer (closed –questions) from those with more than one answer (open-questions); Second, Tsui also mentions the further differentiation which is questions which the teacher has an answer ('display' or 'pseudo' questions) and those to which the teacher does not (referential or 'genuine'

questions). He argues that such distinction is made to examine how these questions affect the types of response elicited from learners. Tsui (1995) presents the results of the studies of both Brock (1986) and Long and Sato (1983) stating that "display questions were predominant in teachers' interaction with learners, and that "referential questions" were more conducive to the production of lengthier and more complex responses by learners.

Here is an example of two excerpts of data from an L2 primary classroom, where both questions asked by the teacher are "what" questions, but the first one is display question which has only one correct answer, so it is a "closed question". The second is a "referential" question with no pre-determined answer, hence "open":

-. T: Last week we were reading "Kee Knock Stan" (title of a story). What is "Kee Knock Stan"? Janice. (display question)

P: I cannot understand.

T: yes

(Tsui 1995:25:2c)

-. T: What do you think the postman at the post office would do? (Referential question)

P: I think I would divide it if the letters are to Hong Kong or other places.

T: Yes, I think that's a sensible way, right? Good. (Tsui 1995: 25:2c)

The relation between Question types and other affective factors/modifications

After presenting the previous example, Tsui argues that "When teachers fail to elicit any response from the learners, they often need to modify their questions." (p. 122). Varonis and Gass (1985) mention that studies of interactional modifications have focused largely on the presence of modification devices to determine the amount of comprehensible input made available to learners (cited in Tsui, 1995). There is not, however, much empirical research on the relation between different kinds of interaction and the rate of L2 development (Ellis 1988).

Long and Sato (1983), for instance, identify a number of modification devices used by teachers, including syntactic modifications (such as making the topic salient and decomposing complex structures) and semantic modifications (such as paraphrasing difficult words and disambiguation). Van Lier (1998) also uncovers other aspects of Long and Sato's results stating the clarification that even though the lessons were reportedly communicative in orientation, L2 teachers ask many more display questions than referential, in contrast to out-of- class interaction between native and non-native speakers. Why would teachers, even if they are convinced of the benefits of meaningful interaction, engage in so much questioning which is so different from ordinary non-instructional discourse? Even the Natural Approach, of Krashen and Terrell (1983), recommends, in this instance for lowering the "affective filter", a series of display questions such as the following:

Let's count the number of students with blue eyes. One, two, three, four ... Are there any others? (Jim). Oh, of course, we can't forget Jim. Yes, he has blue eyes. Now, who has brown eyes? Does Martha have brown eyes? (Yes). And what color is her hair? (Brown). Is it light brown or dark brown? (Light). Is she wearing a dress today? and so on...

(Krashen and Terrell 1983, p.81, cited in Van Lier 1988, p. 222) Questions like these have the professed aim of giving comprehensible input, and of bringing "early production". Lier suggests that what gives such question series their instructional L2 classroom character is not so much that they are display rather than referential, but that they are made with the aim of eliciting language from the learners. Upon examination, it may well turn out that the teacher, and several of the students, did not know that Martha has brown eyes, and that this information was made available to all participants as a result of the question, which would make the question a referential one (p. 223). In both cases the function of the question remains the same: to provide input, and to elicit verbal responses. Thus, it is worth concluding that what distinguishes instructional questions from conversational (non-instructional) ones is not their referential or display nature, but rather their eliciting function. Here is an example where a prompt/ cue, display, and referential questions were used, but in interactional terms, the difference is minimal:

a. Prompt or cue:

T: go to the theatre.

yesterday. Martha.

- L: yesterday I went to the theatre.
- b. display question:

T: (pointing to a picture) Where did Martha go yesterday?

L: she went to the theatre (yesterday)

c. referential question:

T: Where did you go yesterday, Martha?

L: (yesterday) I went to the theatre.

(Van Lier 1988, p. 223)

Although the linguistic form of the response may vary somewhat for different kinds of elicitations (it also could be added "Ask Martha what she did yesterday'; 'did you stay at home yesterday, Martha?') the nature of the activity remains essentially the same: a verbal stimulus elicits a verbal response. More light should be shed on why

much of the teacher's discourse is aimed at eliciting certain kinds of contributions from the learners. The answer here is: Control over the exact kind of language the learner is exposed to, and control over students' participation in the classroom. "That control can be pervasive in referential questioning as it is, more blatantly perhaps, in display questioning or even in cuing and prompting." (Lier, p. 223). Most questions even the so-called 'pure' information questions carry a control function. Lier quotes Goody (1978):

Questions are speech acts which place two people in direct, immediate interaction. In doing so they carry messages about relationships- about relative status, assertions of status and challenges to status." (p. 39, cited in Lier, p.224)

In a similar treatment of the same variable, Richards (1996) presents wait-time as an important dimension of teacher's questioning skills. The author clarifies that teachers often use a very short wait-time (e.g., one second) which is rarely sufficient to enable students to respond. Richards (1996) quotes Long et al. (1984): "when waittime is increased to three to five seconds, the amount of student participation as well as the quality of that participation often increase." (p.188)

In his discussion of the same factors, Chaudron (1990) moves to another study by Redfield and Rousseau (1981). The two researchers considered referential questions more to be of higher cognitive level questions. They found that "gains in achievement can be expected when higher cognitive questions assume a predominant role during classroom instruction." (p. 237) (cited in Chaudron, 1990, p.174). Thus, one might expect effect for referential question use.

In their study, Long and Sato (1983) analysed transcripts of six elementary adult ESL classes with an average of twenty students per class. The researchers have audiotaped classes in different states in the United States of America. They compared the teachers' speech to the learners with baseline data collected in an experimental (non-classroom) study of native speakers and non-native speakers interacting in pairs called (dyads) (Long 1980 b, cited in Allwright and Bailey, 1991, p.140).

One main point on which the researchers focused was teachers' use of display and referential questions. In one transcript within the same study, it was evident that teachers used display questions to get learners to display their knowledge. In contrast, referential questions, or as they called it "true information questions", are those which refer to actual information sought by the questioner. They mainly compared the number of "display questions" and "referential questions" in naturalistic and classroom discourse. They found that in naturalistic discourse referential questions are more frequent than display questions, whereas display questions are much more frequent in whole-class teaching in ESL classrooms (Richards, 1996. p.187).

One conclusion of Long and Sato's study was a striking significant difference mentioned by Allwright and Bailey (1991). Not only did ESL teachers use significantly more display than referential questions in the classroom, but they also used significantly more display questions and significantly fewer referential questions than did the native speakers in the dyads. "Following Long, there was less genuine communication going on in the classroom than in the experimental native speaker / non-native-speaker pairs (p.141).

A final comment is that not only do L2 teachers tend to ask more display questions than referential, but parents do so as well. Wells (1985) points out that

"parents also frequently ask display questions when interacting with their small children. They therefore play a role in first-language acquisition" (Cited in Van Lier 1988, p.237). This comment by Wells suggests that the use of display questions helps in language acquisition for young learners. Parents often tend to ask questions to help their kids respond and practice language.

Classroom Research: developments and studies

In the following paragraphs some issues and examples of classroom research will be presented for the importance of placing issues in their larger context. Because the current study is an example of a classroom research, it is important not to start investigating classroom components before highlighting some essential details and studies conducted inside the classroom and under the higher umbrella of classroom research.

Long (1980) defined classroom research as "all or part of whose data are derived from the observation or measurement of the classroom performance of teachers and students (P.3: cited in Celce-Murcia, 2001; p. 489). When the researcher carries out a classroom observation in the classroom (by visiting classrooms) to see learners' participation and behavior, this would be an example of classroom research.

Bailey (2001) confirms that classroom research is conducted by anyone using any approach to collect data and analyze it. However, classroom research cannot stand alone without other key concepts as Teacher Research and Action Research. She sums up the definitions of these concepts. Classroom research refers to the location and the focus of the study. However, Teacher Research refers to the agents who conduct the study, Action Research, however, denotes a particular approach, a codified but

flexible set of procedures for the participants to conduct research in their own settings. This kind of research might be conducted in classrooms or outside classrooms. The focus in this study is on Classroom Research.

Developments in Language Classroom Research

The literature review of classroom research in Bailey (1985) focuses on four major research themes. **The first** theme is students' patterns of participation in language classrooms. **The second** is investigation of language teachers' classroom behavior. **The third** is teachers' treatment of learners' (oral) errors, and **the fourth**, individual student or teacher variables (Celce-Murcia, 2001).

The literature review published by Chaudron (1988) also identified four main areas of research. The first is teacher talk in second language classrooms. The second is learner behavior in second language classrooms. The third is teacher and student interactions in second language classrooms, and the fourth is learning outcomes (cited by Bailey in Celce-Murcia, 2001).

These areas of research have continued to be important topics of classroom research. Bailey provides examples from Kasper (1985) and Tomasello and Heron (1989) who have conducted researches investigating error treatment in language classes. Bailey argues that while early studies looked at patterns of student participation in teacher fronted classes, the recent studies have compared small group interactions with large group interactions influenced by the emergence of Communicative language teaching.

Another area of investigation in classroom is individual learner variables and second language learners' behaviors. This was investigated by language learners'

Diary entries about their learning experiences. These diaries were kept in the early years by linguists who studied a language. Later these diaries were kept by actual learners but analyzed by researchers. These studies include Ellis's (1989) study of two adult learners of German; Hilleson's (1996) investigation of reticence and anxiety among secondary school students in Singapore; Brown's (1985a) research comparing older and younger adult learners of Spanish; and Matsumoto's (1987) analysis of a young Japanese woman's diary of her ESL learning; etc (cited in Celce-Murcia, 2001, p.492). This procedure has been criticized by Seliger (1983) because it is unlikely that trained linguists represent the majority of language learners- the processes they undergo in learning a language may not be the more typical students in language classrooms.

Other studies of classroom research have used multiple data collection procedures to investigate learner variables. Such studies are like Schmidt and Frota (1986). Both researchers analyzed a diary kept by Schmidt as he learned Portuguese in Brazil. Frota who is a native speaker of Portuguese carried out periodic error analyses of Schmidt's speech.

Conclusion

One may clearly notice that all the studies on Wait-Time and Question types which are reviewed in this chapter have finally come to similar results and conclusions. Regarding Wait-time, the researchers' results agreed on the partial effect of extending wait-time on students' production. In other words, extending the waittime actually results in involving more participants (larger number of students who raise their hands to answer), but this extension doesn't necessarily result in longer utterances or more grammatical and meaningful sentences.

The studies that treated Question types all found that teachers mostly tend to ask more display questions (Long and Sato, 1983; Brock, 1983; Long, 1986,...). This issue is treated by these researchers and others by assigning control and experimental groups that had training on varying question types by asking more referential questions than display. It was finally concluded that there were more effective participation and many more learners who wanted to participate. An important note which deserves to be mentioned in this context is the fact that referential questions created more natural interaction and discourse.

These studies which were conducted to treat Wait-time, Question-types, Feedback, Error correction and other issues, provided the researcher with valuable and sufficient literature for this current study which investigates Wait-time and Questiontypes in the Area of Se'ir in the year 2009. As a matter of fact, these rich studies enabled the researcher to form the research questions for the current study on whether or not extending Wait-Time affects participation and interaction by doubling the number of participants and by resulting in longer utterances; and whether or not varying Question –Types affects interaction by maximizing the number of participants and creating a more realistic atmosphere of discourse.

These studies provided insight for the researcher to follow a certain methodology that serves the ultimate purpose of measuring the effect of extending Wait-Time and varying Question types by dividing the study into three major stages: an observation stage, an intervention stage and a follow up interview.

Chapter three Methodology

3.1. Introduction

This chapter presents the basic cornerstones of the study: The population and sample, research design, types of classes and texts, interview questions, validity and reliability procedures and data analysis.

3.2. Population and sample

The population of this study consists of all English teachers and students of the eleventh grade in Se'ir Secondary schools. The sample selected from this population falls under two categories: **The first** one consists of ten high school English teachers interviewed by the researcher about issues pertaining to wait time and question types. **The second** category includes eleventh Grade male and female students in the literary and scientific streams enrolled in the academic year 2008-2009 at two schools in the town of Se'ir. The first school was Se'ir Secondary School for Girls, and the second was Se'ir Secondary School for Boys. The English teachers in the two schools were observed in the second semester; specifically in the last two weeks of April and the first week of May. These students started learning English for seven years. This fact was supposed to enable their teachers as well as the researcher to study the quality of these students' answers and the impact that Wait-time extension and varying the question types has on the quality and quantity of their interaction.

The sample for this study consisted of 263 students including 162 females and 101 males. Female students are more than males because the number of sections in the Boys' school was less than that in the Girls' school. This number is divided into eight separate sections or classrooms unevenly distributed between scientific and literary.

The number of scientific female students was 44 and literary was 118. As for the scientific stream, the number of male students was 28 compared to 73 literary students, as shown in table 3.1 below.

females		percentage	males	percentage
scientific	44	27.20%	28	27.70%
literary	118	72.80%	73	72.20%
total	162	61.60%	101	38.40%
total number of subjects			263	

Table 3.1 Distribution of student sample by stream and gender

3.3. Research design

To show the influence of extending the wait-time and varying the question types (i.e. increasing the number of referential questions in each class) on the quality and quantity of learners' participation, a qualitative research analysis was carried out. For this purpose, the study included one dependant variable and two independent variables. The dependant variable in the study is the quantity and quality of classroom interaction/ participation. The independent variables during the observation stage are the stream (scientific vs. literary), and gender which may influence the nature of student involvement and participation. The independent variables in the intervention stage are wait time and question types which were specifically treated during the second stage of research thus influencing students' interaction/participation.

Wait time refers to the duration of time given by teachers for learners after asking a question and how this duration affects students' interaction. In other words, it determines students' engagement in the activity. In the present study wait-time will be first observed, and then extended to 6 seconds to show difference in and influence on the quality and quantity of participation. The extension of wait-time was done in the first and second phase of the second stage of the study.

The term "Question types" in this study refers to the kinds of questions which teachers usually ask and varying question types refers to increasing the types that were less asked by teachers. The two types of questions (Referential & Display) were counted through observation and notes about the accompanying interaction were also taken by means of an observation sheet. In phase two of stage two (intervention stage), the ignored or less asked type of question was consciously increased and the influence of this increase on the quantity, quality and patterns of interaction was noted.

The whole study consisted of three major stages: stages one and two involved an experimental classroom approach; and stage three involved follow up interviews with high school English teachers. The number of classes which were observed in each stage depended only on the space and cooperation provided by the observed teachers to the researcher to carry out her observations and intervention.

During stage one, which consisted of six class observations, the researcher monitored the natural treatment of the two variables-wait-time and question types- in the natural setting of English language teaching in the two schools mentioned earlier. The researcher took notes down so as to highlight the influence of these variables on the quantity, quality and patterns of interactions which emerged in the observed classes.

In stage two, the researcher began to intervene in the spontaneous track of the class by requesting the teachers to extend the wait-time to 6 seconds in phase one of this stage. Phase one consisted of five classes (three classes for females – two classes

for the scientific stream and one for the literary-and two classes for the males-one for the scientific and one for the literary). This is simply because the researcher wasn't able to observe a third males' class. Wait-time was extended in all these classes and then notes were taken to show the difference in quantity, quality and patterns of interaction. In phase 2 of the second stage, however, intervention was carried out in relation to the two variables: Wait-time was extended to 6 seconds as was the case in phase one, and the number of referential questions was consciously increased as the earlier observations revealed that this type was largely ignored by teachers. The difference was clearly noted, and the influence of intervention was shown. After that results were presented and consequently the discussion of these results followed. Finally, conclusions were drawn and recommendations were suggested.

Stage 3 included a follow-up interview that was conducted with high school English teachers in the area of Se'ir. These teachers were asked seven questions regarding their implementation of wait-time and question types, and whether they would like to try extending the wait-time and increasing the number of referential questions. These interviews were held to add more emphasis on the results of the classroom observations and to investigate the applicability of such variables in the Palestinian classrooms

3.4. Instrumentation

The instruments which were chosen to carry out this study were two: classroom observation and interviews.

3.4.1. Classroom observation:

English language classes of the eleventh grade were targeted in this research. The best kind of activity that suits the objectives of the study was reading comprehension

as the teacher is always supposed to ask a lot of questions concerning the topic of the text. Only one lesson was a language lesson about (the modal verb- can). Many texts, which exist in the governmental syllabus English for Palestine 11, were observed. Some texts were observed more than once during the three stages due to the large number of sections of grade 11 in the two schools.

These texts include: "This Dangerous World", which discusses the emergency situations and dangers all of us face daily, and how to behave in such situations providing essential tips taken from a manual book. Another text was "The Bermuda Triangle" which presents facts and incidents about the Bermuda Triangle and the stories of the disappearance of ships and planes there with some suggested reasons which might stand behind such disappearances with light shed on the disappearance of the Mary Celeste crew. The third text was "The Story of Storing Information-The development of Writing" that presents the different ancient ways to store information and focuses on the stages of the development of writing. The fourth text was "Disaster the Day after Tomorrow/The Global Warming". This text discusses the dangers and warnings of the irresponsible overuse of oil and other energy sources on the atmosphere. It shows students how global warming is formed and how to avoid heating the globe up. These texts are found in the appendices section at the back of the thesis.

3.4.2. Procedures:

The whole study consisted of three stages during which certain procedures were followed:

3.4. 2. a. Stage one:

This stage, as mentioned earlier, consisted of six classes. These classes were observed only to notice the natural use of the two variables- wait-time & question types- by the teachers. The researcher tried to include classes representing both genders and streams as much as the school schedule allowed because it is not easy to have access to classes for observation, so she used classes available to her. After observing all the classes, all the questions, which were asked by teachers during the observed classes, were taken down. The researcher used a sheet of paper to record as much data as possible during the lesson and caught up on what she missed from the tape later (a sample of the sheet is found in appendix C page 90 at the end of the thesis). The researcher also observed the wait-time given by the teacher after each question. Another major procedure was the observation of the number of participants and the way they used to participate. The researcher did that while observing because it is not easy to do it by means of a tape. She used the tape recorded material later for the purpose of analyzing the exact nature of responses (their length, depth, correctness) because there was no time to do that while being in the classroom. This was done to show the difference and influence of wait-time and question types on these learners' participation.

It is worth mentioning in this context that none of the observed teachers had known the real reason for attending their classes at this stage and what aspects were investigated in particular. This technique was used to observe the natural setting of their teaching process.

As for wait-time measurement, the researcher used her hand pulse (closing and opening her hand) to count "secretly" the seconds of the duration of time.

3.4. 2. b. Stage two, phase one

At this stage, the first variable treatment was carried out. Intervention began by requesting the teachers to extend the wait-time they usually give to 6 seconds during the five classes which were attended for observation. The teachers at this stage were made aware to wait for 6 seconds before starting to receive answers. The researcher trained the teachers to extend the wait time and count it without making the students notice by counting in their minds from one to six and by using their hands' pulse. The researcher's role was to 1. Count wait-time to ensure the extension and 2. to observe the influence of this extension on the number of participants, the quality and patterns of interaction by taking down any reaction that may emerge including some answers of the learners.

3.4. 2. c. Stage two, phase two

Wait time was extended to 6 seconds and referential questions were consciously increased as stage one and phase one of stage two showed that all the observed teachers asked much more display questions than referential. The two variables' treatment was accomplished in this stage which consisted of six classes. The number of classes changed just as the schools' schedule allows. The researcher prepared a set of referential questions, which were recommended by the supervisor and validated by another school teacher, and provided them to the teachers before each class. A list of these questions is found in appendix E, page 103 at the end of the thesis. The teachers were told to distribute the referential questions throughout their classes not to ask them all in one class to leave space for their natural text-related questions. The researcher kept counting wait-time to assure the reliability of the extension. The following step that followed collecting data was classifying the questions into Display and Referential by ordering them into tables. The average wait time was also recorded in these tables. Results were clearly presented and then discussed. Finally, conclusions were drawn and the researcher summed up with some recommendations.

3.5.I. Validation of the questions which were asked in the classroom

For the sake of the validity of the questions which were asked during the study, a planned procedure was adopted. On the one hand, no changes were added during the first stage and the first phase of the second stage regarding the nature of the questions that the teachers usually ask. Almost all the questions were direct questions about the reading texts which necessarily meant that most of these questions were display ones. In stage three, on the other hand, the researcher discussed with the teachers a set of referential questions to be distributed during the six classes. These questions were recommended by the supervisor of the researcher's thesis and validated by two other school teachers.

3.5.II. Interviews and interview questions

The second instrument used to investigate the two variables was an interview held with a group of High school English teachers asking them about their implementation of wait-time and question type variation. If they used such questions, then they were asked what duration of time they usually give after asking a question. They were also asked whether they vary between display and referential questions or not. If not, then, the researcher asked about their view to try doing these techniques. These questions are:

 Do you think you give your students enough time after asking a question? How long do you usually wait?

- 2. Do you vary when asking questions among the different types of questions?
- 3. Do you think that these two techniques affect the quantity and quality of students' interaction?
- 4. Would you like to try extending the wait-time after asking questions? Why?
- 5. Do you expect that this may influence students' participation? How?
- 6. Would you like to try varying the question types- asking display and referential questions equally?
- 7. Do you expect that students' participation to increase, decrease or to stay the same with this variation in question types? Why?

3.5.III. Validation of the interviews and the questions of the interviews

- The sample of the interviews

Ten high school English teachers (both males and females) were selected from four schools in the area of Se'ir and the surrounding towns. Five of them were previously participating in the classroom study. The selection was mainly based on the number of Secondary schools and the number of English teachers in those schools (in Se'ir an Al-Shiukh).

- Validation of the questions of the interviews:

A set of seven questions were asked for the ten teachers in each interview. It is worth mentioning that these questions- which were mentioned earlier in this chapterwere recommended and revised by the supervisor of the researcher and they were also validated by two other school teachers. Some changes were made on these questions for more clarity purposes.

3.6. Conclusion

In this chapter the researcher presented the necessary aspects of her research: population and sample, the dependant and independent variables, research design, instrumentation, and procedures.

Chapter Four

Results

The three stages and the ten interviews of the present study yielded significant results, some of which were surprising. In this chapter, results of the three stages of this research will be thoroughly presented. Also, the results of the ten interviews will be presented accompanied by the written copy of each interview. Stage one, as mentioned earlier, included the observation of Wait-time and Question-types in the natural setting (without intervention). The first phase of stage two included intervention by extending the wait-time to 6 seconds. Finally, the second phase of stage two involved intervention by extending wait-time and varying question types.

I. Classroom observation:

<u>Stage One: Observation of Wait-time and Question –type natural observation</u> <u>with no intervention</u>

This stage included observing six classes that varied across gender and stream (literary or scientific). Classes were divided to include equal observations of the above mentioned variables.

Day One: (Female class/ Literary stream)

The time waited:

As for Wait-time, the observations revealed that the average wait-time used naturally by the teacher ranged on average between 2-3 seconds for all the questions with the exception of the sixth question for which wait time lasted for 6 seconds.

Types of questions asked:

In Day One, a female literary class of 40 students was chosen and a series of both Display and Referential questions was asked. These were calculated to be only 10

Type of interaction

Teacher - Student Teacher - Student Teacher - Student Teacher - Student Teacher - Student

Teacher - Student

Teacher - Student

Teacher - Student

Teacher - Student

Teacher - Student

questions all together including the typical routine questions of Day and Date. Table (1.1) shows that the teacher asked 6 Display questions; while she asked only 4 Referential Questions. The ten questions are spread out within the various activities that took place in the classroom.

,	tream / females -) students	Table 1.1 descriptive analysis of question types, wait time, and number of participants pertaining to stage one/day one				
Day One	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	
	Comprehension	1. What's today?	Display	2	13	
	"This Dangerous World"	2. What is the date?	Display	2	12	
		3. What is the title?	Display	3	10	
		4. What is the meaning of dangerous?	Display	2	2	
		5. What dangerous things do we face?	Referential	3	1	

Observation Only / No Intervention

yourself?

weather?

The number of students engaged in interaction:

6. What dangers do we face at school?

8. If there is danger, how can you protect

9. How can you protect yourself from bad

10. What's the meaning of "manual"?

7. What do you see in the picture?

Students' interaction varied but, in general, there was a limited number of participants. The first three questions posed in that class were "What's today? What's the date? How is the weather?". These three questions had a number of 10-12 students who raised their hands to answer. The fourth question (display) and the fifth one (referential) almost had the same duration of wait -time (2-3 seconds) and there were only 2 and 1 students who attempted to answer them respectively.

Referential

Display

Referential

Referential

Display

6

3

3

3

3

3

4

10

7

5

Just four students wanted to answer the seventh question, nine students for the ninth question, and five students for the tenth question although students were given 3 seconds for the three questions. The eighth question, however, which was a referential one, had the largest number of participants which was 10 students although it had only 3 seconds wait-time.

Patterns of Interaction emerging:

The only pattern of interaction that emerged in Day one was absolutely "Teacher – Student" interaction. There was no discussion or opinion exchange among students.

The teacher didn't ask enough questions in spite of the fact that the lesson was a comprehension one where many kinds of questions and techniques might be done. They first read the text silently, then she discussed it paragraph by paragraph, and then asked students to form pairs to ask and answer the "after you read" questions. She sometimes used Arabic to explain the text and to explain the question. Pre-reading questions were left.

Day Two: (Literary- females/ continued)

Wait-time used

The teacher's wait-time for the seven questions ranged between 1-5 seconds. The fifth question that had 1 second of wait-time was a Yes/ No question which required a quick answer.

Types of questions asked:

The same class was observed the next day and the lesson continued. Table (1.2) shows that only 7 questions were asked all of which are of Display nature. The teacher focused on the pictures and manuals in that lesson. All the questions considered the topic of the lesson "emergency situations and how to behave in such accidents".

Number of students engaged in participation:

The first question was about the Day and 25 students raised their hands to answer. As for the questions 2-4, the teacher waited for 3-4 seconds, but only 2-3 students raised their hands to answer. Although the fifth and sixth questions had 1-2 seconds wait-time, the number of students who raised their hands to answer was good- 8-15 students- in succession. The seventh question had 5 seconds wait-time, but the number of students engaged was 10.

	eventh Literary/ females/ 40	Table 1.2 descriptive analysis of question types, wait time, and number of participants pertaining to stage one/day two				
Day Two	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. Can you tell me what is today?	Display	2	25	Teacher - Student
	"This Dangerous World"	2. Give examples of manuals?	Display	2	2	Teacher - Student
		3. In an emergency, what is the very first thing to do?	Display	4	2	Teacher – Student
		4. What are the boys doing in the photo?	Display	3	3	Teacher - Student
		5. Is there a tree?	Display	1	8	Teacher - Student
		6. What is the meaning of assess?	Display	2	15	Teacher - Student
		7. What does "professionals" mean?	Display	5	10	Teacher - Student

Observation Only / No Intervention

Patterns of Interaction emerging:

The only pattern that emerged is "Teacher – Student" interaction which is the same as the idea of the "IRF" which is the most traditional form of interaction. The teacher initiates, then the student responds and finally the teacher provides feedback.

Day Three: (Scientific/ females -22 students)

Wait-Time used:

The teacher's wait-time ranged between 1-3 seconds for the nine questions. It was observed that the Yes/No questions- which can be considered as Referential questions in this lesson only- had less wait-time which was approximately 1-2 seconds.

Types of questions asked:

A different teacher was observed this time. It wasn't a comprehension lesson at all now; it was "Language/ the modal verb (can)". As table (1.3) shows, the teacher asked nine questions during the whole explanation of the modal verb. Five of the nine questions were display while the other four were referential ones.

Number of students engaged in participation:

The number of students who wished to participate varied from one question to another but in general, it exceeded 10-15 students. The second, sixth, seventh and ninth questions which are all Display questions had the least participants: 3-7 students.

Patterns of interaction emerging:

The same pattern seemed to emerge here also. The interaction was only "Teacher-

student".

scient	n Grade/ females' ific stream / 22 students	Table 1.3 descriptive analysis of question types, wait time, and number of participants pertaining to stage one/day three				
Day Three	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
		1. What is the title?	Display	2	10	Teacher - Student
	Language	2. What are modal verbs?	Display	3	3	Teacher - Student
	The modal verb "Can"	3. Can you drive a car?	Referential	1	12	Teacher – Student
		4. Can you use the Internet?	Referential	2	15	Teacher – Student
		5. Can you travel to Jordan alone?	Referential	2	12	Teacher - Student
		6. What do we use "can" for?	Display	3	3	Teacher - Student
		7. Is "can" used for ability?	Display	2	7	Teacher - Student
		8. Can you speak English?	Referential	3	10	Teacher - Student
		9. What kind of verb follows the modal?	Display	2	5	Teacher - Student

Number of students engaged in participation:

The number of students who wished to participate varied from one question to another but in general, it exceeded 10-15 students. The second, sixth, seventh and ninth questions which are all Display questions had the least participants 3-7 students.

Patterns of interaction emerging:

The same pattern seemed to emerge here also. The interaction was only "Teacherstudent".

Day Four: (Scientific/ males- 28 students)

Wait-time used:

The natural time which was waited by the teacher ranged between 1,2,3,5 seconds. Five questions with 2 seconds, two questions with 1 second, one question with 3 seconds, and one question with 5 seconds.

Types of questions asked:

Table (1.4) shows that the teacher in this class asked nine questions all together. eight of the nine questions were display. Only the seventh one could be considered as referential.

The lesson was a comprehension one about "The Bermuda Triangle". The teacher stuck to the text completely making no deviations that make students think or take part.

Table 1.4 descriptive analysis of question types, wait time and number of participants pertaining to stage one/day Eleventh male scientific/ 28 students four Topic/ activity Question Type: Wait-No. of Type of interaction Ref./Dis. students time attempting (seconds) Day interaction four Comprehension 1. What happens to planes and ships in Display 2 15 Teacher - Student Bermuda Triangle? "The Bermuda 9 2. What are the explanations of such Display 2 Teacher - Student Triangle' disappearance? 3. What is the opposite of "easily"? 10 Teacher - Student Display 1 4. Who are the crew? Display 2 12 Teacher - Student 5. When did they leave? Display 5 15 Teacher - Student Teacher - Student 6. What did they find? 3 15 Display 7. What happened to the staff? Referential 2 15 Teacher - Student 8. The pronoun "them" refers to ... Display 1 8 Teacher - Student 9. Why does the text end like this? 2 8 Teacher - Student Display

Observation Only / No Intervention

Number of students engaged in participation:

Generally speaking, the participation by scientific stream students seems to be higher than literary students. The number of students engaged in participation ranged between 8-15 of the 22 students in the class. The only Referential question had a number of 15 participants as well as another display question which had the same number.

Patterns of interaction that emerged:

Again and again the interaction was a "Teacher – student" interaction.

Day Five: (Literary / males- 35 students)

Wait-time used:

The teacher's offered wait-time was 1,2,3 seconds for the questions except for the last-referential- question which had 5 seconds.

Types of questions asked:

Table (1.5) reveals that it was observed that the use of display questions was extremely dominant in this class just as the previous ones. The total number of questions was nine. The display questions were seven, while the referential ones were only two. The lesson was a comprehension one also about "The Bermuda Triangle". The teacher's absolute focus was on the text. Thus, he asked related questions which can be easily elicited from the text ignoring the other analytical questions or those which draw students' attention and make real communication to create classroom interaction. This may be due to the fact that these teachers were taught in the traditional way where their teachers used to ask easy questions that didn't need much thinking.

Number of students engaged in participation:

The number ranged between 9-20 students for all questions except for the first question "what is the name of the ship?". Although it is easy to be answered, only three students were ready to answer it.

Observation Only / No Intervention

	nth male literary/ 35students	Table 1.5 descriptive analysis of question types, wait time, and number of participants pertaining to stage one/day five				
Day Five	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. What is today?	Display	1	12	Teacher - Student
	"The Bermuda Triangle"	2. What is the date?	Display	1	15	Teacher – Student
		3. Which unit is this?	Display	1	20	Teacher - Student
		4. Do you like adventure?	Referential	2	18	Teacher - Student
		5. Can you tell me the reason behind the disappearance of ships and planes?	Display	2	13	Teacher – Student
		6. What is the name of the ship?	Display	2	3	Teacher - Student
		7. Was the ship in a good condition?	Display	3	9	Teacher - Student
		8. How many persons were on board?	Display	3	10	Teacher - Student
		9. If you were with the staff of the ship what would you do?	Referential	5	10	Teacher – Student

Patterns of interaction:

The pattern of interaction in this class was also "Teacher - Student" one.

Day Six (scientific/ females -22 students)

Wait-time used:

The wait-time varied unconsciously from one question to another. Five questions were given 1 second only, three were given 2 seconds, three questions had 3 seconds, two had 4 seconds, and three were given 6 seconds.

Types of questions asked:

The lesson was about "The Development of Writing" when the teacher asked a lot of questions, a number that exceeded all the observed classes. Table (1.6) reveals that she asked as many questions as sixteen all together. All the sixteen questions were display. All were about the above mentioned comprehension text.

Number of students engaged in participation:

Although some questions had longer wait-time than others, this didn't necessarily affect the number of students who wished to answer. Questions with 1 second waittime had 1,2,3,4, and 5 participants. Questions which had 2 seconds wait-time had 3,10 students who raised their hands to answer. The number of students who wished to answer the questions of 3 seconds were 8, 12, 13; but questions that had the time 4 seconds motivated 5,7 students to answer. Finally, the questions that had the wait-time 6 seconds found 2, 9, 18 participants.

	female scientific/ 2 students	Observation Only / No Intervention Table 1.6 descriptive analysis of question types, wait time, and number of participants pertaining to stage one/day six				
	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
Day Six						
	Comprehension	1. What are the ways of storing information?	Display	2	3	Teacher – Student
	"The development of writing"	2. When did writing develop?	Display	3	8	Teacher – Student
		3. What are the stages in which writing passed through?	Display	6	2	Teacher – Student
		4. What was the purpose of storing information?	Display	4	7	Teacher – Student
		5. What does the sentence line 5 mean?	Display	2	3	Teacher - Student
		6. What does the 3rd picture mean?	Display	1	3	Teacher - Student
		7. What do Egyptian hieroglyphs mean?	Display	1	1	Teacher - Student
		8. What did written symbols represent?	Display	4	5	Teacher - Student
		9. What does picture 1 show?	Display	1	3	Teacher - Student
		10. What pointed towards the future of writing?	Display	1	5	Teacher – Student
		11. "This" line "22" refers to	Display	1	4	Teacher - Student
		12. Where did Arabic, Hebrew, and Roman alphabets come from?	Display	6	18	Teacher – Student
		13. Where did the first alphabet develop?	Display	2	10	Teacher - Student
		14. How many letters were developed?	Display	3	12	Teacher - Student
		15. Where did the Phoenicians live?	Display	3	13	Teacher - Student
		16. From where did the modern alphabet develop?	Display	6	9	Teacher – Student

Patterns of Interaction emerged:

The only pattern of interaction in this class was similar to that in previous classes.

It is a "Teacher – Student" Interaction.

Stage two, phase one: Intervention - Extending Wait-Time only

This stage focused mainly on **Extending the original Wait-Time to (6 seconds)** for all the questions in this stage. The topics of the classes in this stage are the same as those observed in stages One and Two due to the fact that observation and intervention are done within a limited duration of time. Types of questions asked will be presented as they occurred during classes – without intervention. The same teachers who were involved in stage one were also involved in stage two: phase one and two because of technical issues related to the permission that was offered to the researcher to access certain classes and also because of the limited number of English Language teachers in these schools which doesn't usually exceed three teachers.

Day one: (scientific/ females -22 students)

Wait-time is *consciously extended to (6 seconds)* as shown in table (2.1)

	scientific stream/ 22 students	Table 2.1 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase one /day one				
Day One	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. What is today?	Display	6	12	Teacher - Student
	"The Bermuda Triangle"	2. What is the date?	Display	6	15	Teacher – Student
		3. Which unit is this?	Display	6	20	Teacher - Student
		4. Can you tell me the reason behind the disappearance of ships and planes?	Display	6	15	Teacher – Student
		5. Does this ship have a name?	Display	6	11	Teacher - Student
		6. Was the ship in a good or bad condition?	Display	6	13	Teacher - Student
		7. Do you have any idea about the area of Bermuda Triangle?	Referential	6	18	Teacher – Student
		8. Does the story have an end?	Referential	7	10	Teacher - Student

Intervention/ Extending the wait-time (6seconds)
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Types of questions asked:

The teacher asked eight questions in this comprehension lesson about "Bermuda Triangle". Six of the questions were Display and only two were Referential questions.

Number of students engaged after extending the Wait-Time:

The number of students who raised their hands in an attempt to participate noticeably increased. This number ranged between 7-20 students in this 22 students' class for Display questions. As for the referential question, it had 18 students.

Patterns of interaction:

The interaction was a "Teacher – student" pattern with some attempts to ask other students about the meaning of a word or a question.

Day Two: (literary / females - 38 students)

Wait -time is 6 seconds

Intervention/ Extending the wait-time (6 seconds)

le literary/ 38 students	Table 2.2 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase one /day two
Topic/activity	Question

	students	one/day two	1			
Day Two	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. What is the title?	Display	6	18	Teacher - Student
	"Energy for Tomorrow"	2. What does the "Day after Tomorrow" refer to	Referential	6	13	Teacher – Student
		3. What do you know about the plot of the film?	Referential	6	12	Teacher – Student
		4. What is global warming?	Display	6	6	Teacher - Student
		5. How are fossil fuels formed?	Display	6	11	Teacher - Student
		6. What do you know about global warming?	Referential	6	9	Teacher – Student
		7. What does the word "fossil fuel" mean?	Display	6	11	Teacher - Student
		8. What kinds of solar energy are there?	Display	6	10	Teacher - Student

Types of questions asked:

The comprehension classes were the best to measure several points at once. This time the comprehension text was about "Energy for tomorrow". During the discussion of this topic, the teacher asked eight questions; five of which were Display questions and three were Referential as table (2.2) shows.

Number of students engaged after extending the wait-time:

The number of students in this class didn't show a noticeable increase. It ranged from 6- 18 students for all the questions having 9 -12-13 for the Referential ones. Question one, which was about the title of the text, motivated 18 students to answer. The other Display questions had 6,10 and11 participants respectively.

Patterns of Interaction:

The teacher devoted her entire focus to extending the time and to drawing students' attention to win this chance to think alone. She didn't leave a chance for anyone to ask. Consequently, the Interaction was of a "Teacher – student" pattern.

Day Three: (literary / males – 35 students)

Wait-time is extended to (6 seconds).

Types of questions asked:

The lesson was about "Energy for Tomorrow" also, and the teacher asked eight questions during his discussion of the text. Five of the questions were display ones; whereas three only were referential. Table 2.3 shows that all the questions were related to the text.

		Intervention/ Extending the wait	-time (6second	S)		
mal	es literary/ 35 students	Table 2.3 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase one /day three				
Day Three	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. How is the weather?	Display	6	15	Teacher - Student
	"Energy for Tomorrow"	2. What are the effects of global warming?	Display	6	5	Teacher – Student
		3. Have you heard of Tsunami?	referential	6	19	Teacher - Student
		4. What will happen if nothing is done for global warming?	Display	6	4	Teacher – Student
		5. What are the alternatives of fossil fuels?	Display	6	6	Teacher - Student
		6. Have you ever seen a real wind farm?	Referential	6	12	Teacher - Student
		7. What kind of solar energy is more reliable?	Display	6	5	Teacher – Student
		8. Do you feel worried about the global warming?	Referential	6	9	Teacher – Student

ntion/ Extanding the wait time (6coconde)

Number of students engaged after extending the wait-time:

It seems that extending wait-time didn't affect the number greatly. This may be due to the fact that this particular section participated more in stage one and in this phase of stage2, they also participated more. The students who raised their hands to answer the display questions ranged between 4-15 students. The first question only,

which was about the weather, was the question where the number of students reached

15. The other four display questions had 4,6,5 and 5 participants respectively. The

Referential questions 3,6 and 8 have motivated 19, 12 and 8 students to try to answer.

Patterns of interaction emerging:

Interaction is shifted from Teacher to Students.

Day Four: (scientific/ females- 22 students)

Wait-time is (6 seconds)

Types of questions asked

Table (2.4) shows that the teacher asked 7 questions while discussing the text about "This Dangerous World". Four questions were Display and three were Referential questions.

		one /day four				
Day Four	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. How does the weather look like today?	Display	6	14	Teacher - Student
	"This Dangerous World"	2. What is the first step in an emergency?	Display	6	16	Teacher – Student
		3. Have you experienced an emergency situation?	Referential	6	15	Teacher – Student
		4. What does "conscious" mean?	Display	6	16	Teacher - Student
		5. Do you wish to work with emergency teams?	Referential	6	20	Teacher – Student
		6. Do you remember any emergency number?	Referential	6	19	Teacher – Student
		7. Give me examples of dangers at school	Display	6	13	Teacher - Student

Intervention/ Extending the wait-time (6seconds) Table 2.4 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase

Number of students trying to answer after extending the wait-time

Students' numbers for display questions ranged from 13-16 students. The numbers of students who wanted to answer the three Referential questions were 15,19 and 20. These numbers revealed that extending the wait-time in Scientific streams caused an increase in the number of students who raised their hands to answer.

Patterns of interaction:

Students tended sometimes to ask about meanings of questions. So, partially, there were a "Student –student" and "student-teacher" interaction. Students, as may be noticed, initiated by asking questions, thus deviating from the IRF traditional pattern.

Day Five: (Scientific/ males- 28 students)

Wait –time is 6 seconds.

Types of questions asked:

The teacher asked eight questions in his presentation of the comprehension text about "Bermuda Triangle". As table 2.5 shows, seven questions were display and only one question was referential.

males scientific/ 28 students		Table 2.5 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase one /day five					
Day Five	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction	
	Comprehension	1. Where does the Bermuda Triangle lie?	Display	6	16	Teacher - Student	
	"The Bermuda Triangle"	2. What happened in 1918?	Display	6	11	Teacher – Student	
		3. Were there nice experiences or strange ones there?	Display	6	17	Teacher – Student	
		4. What is the expected reason for these strange incidents?	Display	6	10	Teacher – Student	
		5. What is the picture for?	Display	6	18	Teacher - Student	
		6. What is it called?	Display	6	17	Teacher - Student	
		7. How many persons were on board?	Display	6	12	Teacher - Student	
		8. What other possibilities do you expect for the disappearance of Mary Celeste?	Referential	6	8	Teacher – Student	

Intervention/ Extending the wait-time (6seconds)

Number of students engaged after extending the wait-time:

The number of students who raised their hands attempting to answer the display questions ranged between 10-18 students. However, the number of students who wished to answer the only referential question is 8 students.

Patterns of Interaction that emerged:

The interaction was only "Teacher – Student", but for some clarifications about the meaning of a word or sentence.

Stage Two: phase two: Intervention/Extending Wait-time & Varying Question types:

In this stage both Wait-Time and Question Types were simultaneously treated. Wait-time was consciously extended to 6 seconds for both the Display and the Referential questions, and Referential questions were consciously increased.

This stage consisted of six days/ classes divided randomly between scientificliterary, females and males. In each class, wait-time was extended and referential questions were increased.

Day One: (literary/ females- 40 students)

It was a comprehension lesson in which the teacher discussed part of the text "Disaster the Day after Tomorrow".

types

female literary/ 40 students		Table 3.1 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase two /day one				
Day One	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	Comprehension 1. What does the title refer to?		6	10	Teacher - Student
	"Disaster the Day after Tomorrow"	2. How many brothers and sisters do you have?	Referential	6	15	Teacher – Student
		3. What is your favourite TV show?	Referential	6	20	Teacher – Student
		4. Who do you admire more, Bush or Obama?	Referential	6	19	Teacher – Student
		5. What is your favourite meal?	Referential	6	25	Teacher – Student
		6. Is the movie American or European?	Referential	6	20	Teacher - Student
		7. What causes global warming?	Display	6	8	Teacher – Student
		8. What is your father's job?	Referential	6	20	Teacher - Student

Types of Varied questions asked:

Table (3.1) shows that the questions were varied to include two display questions only and Referential questions were increased to six.

Number of students interacting after intervention:

The number of students who wished to answer the three display questions varied from 8, 10, to 20. However, the students who raised their hands to answer the five referential questions were 15, 19, 20, and 25 students.

Intervention: Extending the wait-tim & Varying the Question

Patterns of Interaction that emerged:

It was observed that a new pattern of interaction emerged clearly which is "Student – student" interaction where students kept asking their partners about the questions.

Day Two: (literary/ males- 38 students)

It was also a comprehension lesson about "the Global Warming- Disaster the Day

after Tomorrow".

Types of Varied questions asked:

The total number of questions asked with intervention was nine. Three questions

were of display nature and the Referential questions were increased to Six.

Number of students interacting after intervention:

Students' numbers while answering the three display questions varied. The first question was about the day -as table 3.2 shows- for which 38 students raised their hands to answer. The second display question was about the text when 9 students wished to answer. The last display question was also about the text and 11 students wanted to participate in answering it. On the other hand, students' responses to the completely different type: referential questions were noticeably much higher. Students' numbers ranged between 13 -30 students.

Intervention: Extending the wait-time & Varying the Question

types

Table 3.2 descriptive analysis of question types, wait	time,
and number of participants pertaining to stage two/ p	bhase

male literary/ 38 students		and number of participants pertaining to stage two/ phase two /day two				
Day Two	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. What's today?	Display	6	38	Teacher - Student
	"Global Warming"	2. What is global warming?	Display	6	9	Teacher – Student
		3. Do you feel happy because you're going in a trip?	Referential	6	30	Teacher – Student
		4. Who wants to study in the university?	Referential	6	20	Teacher - Student
		5. How many of you want to study English?	Referential	6	13	Teacher - Student
		6. Do you like hot drinks?	Referential	6	14	Teacher - Student
		7. What does the text use the planet like?	Display	6	11	Teacher - Student
		8. Who is closer o you, your dad or mum?	Referential	6	21	Teacher - Student
		9. Have you ever gone to a cinema to watch a movie?	Referential	6	30	Teacher – Student

Patterns of interaction emerging:

Students' attention was shifted from direct (question -answer) with the teacher to a wider circle of different and new answers for each other. In other words, students started to be involved in group discussions to clarify or explain questions and to compare their answers with each other.

Day Three: (Scientific/ females – 22 students)

The lesson was Reading for Comprehension "The Bermuda Triangle".

Types of Varied questions asked:

Table 3.3 shows that nine questions were asked with the number of Referential questions increased to five. The display questions (which were asked naturally by the teacher without intervention) were four.

Number of students interacting after intervention:

The numbers of students who answered the display questions were 12, 19, 20, and 21; whereas, the numbers for referential questions were 17, 19, 19, 20, and 21. These numbers show the significant increase in interaction in this scientific class.

		types								
female scientific/22 students		Table 3.3 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase two /day three								
Day Three	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction				
	Comprehension	sion 1. What does the pronoun "them" refer to?		6	12	Teacher - Student				
	"The Bermuda 2. What is your favourite colour? Triangle"		Referential	6	19	Teacher – Student				
		3. How many friends do you have?	Referential	6	19	Teacher - Student				
		4. What is you favourite kind of sport?	Referential	6	17	Teacher - Student				
		5. Mary Celeste is a name of	Display	6	20	Teacher - Student				
		6. How many persons were on board?	Display	6	21	Teacher - Student				
		7. Who is your admired footballer?	Referential	6	20	Teacher - Student				
		8. What is your mother's job?	Referential	6	21	Teacher - Student				
		9. What does the word "pirates' mean?	Display	6	19	Teacher - Student				

Intervention:	Extending	the	wait-time &	Varying the	Question

Patterns of interaction emerged:

The above numbers of participants shows the great involvement of students in class activities and their "student- student" pattern of interaction.

Day Four: (Scientific/ males- 28)

The male teacher was discussing the text on "The Bermuda Triangle", too. It was observed in the same day of Day Three observation.

Types of Varied questions asked:

The total number of questions asked in this class, as table 3.4 shows, is eight. The teacher ended the last paragraph of the text on "The Bermuda Triangle", asking two questions about it only. One of which is display and the other is referential. The other six questions were referential concerning different topics provided for the teacher by the researcher before the class.

Number of students interacting after intervention:

The number of male students who raised their hands to answer the only display question was 21 students. On the other hand, their numbers in answering the referential questions ranged between 11-26 students which show some increase.

mal	e scientific/ 28 students	Table 3.4 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase two /day four				
Day Four	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction
	Comprehension	1. What do you think happened to the ten persons?	Display	6	21	Teacher – Student
	"The Bermuda Triangle"	2. What is your favourite season?	Referential	6	23	Teacher - Student
		3. Why does the text end like this?	Referential	6	16	Teacher - Student
		4. Who do you encourage more, Zedan or Ronaldino?	Referential	6	25	Teacher – Student
		5. What is your favourite place to go?	Referential	6	24	Teacher - Student
	6. What is your father's job?		Referential	6	26	Teacher - Student
		7. In your opinion, where are the ten persons?	Referential	6	11	Teacher - Student
		8. What would like to be in the future?	Referential	6	24	Teacher - Student

Intervention: Extending the wait-time & Varying the Question types Table 3.4 descriptive analysis of question types, wait time,

Patterns of interaction:

The interaction that emerged is truly a student- student" interaction in addition to that of a "Teacher – student" pattern.

Day Five: (Literary/males – 38 students)

Another boys section was observed in the same day. The teacher of the class was

also discussing the text on "The Bermuda Triangle".

Types of Varied questions asked:

The teacher asked eight questions as clear in table (3.5). Three questions were display questions and five were referential. He mixed his own display questions with the questions provided to him before the class.

Intervention: Extending the wait-time & Varying the Question

types

fem	ale literary/ 38 students	Table 3.5 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase two /day five						
Day Five	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction		
	Comprehension	1. What does "phrase" mean?	Display	6	24	Teacher - Student		
	"The Bermuda Triangle"	2. Where do you live?	Referential	6	29	Teacher – Student		
		3. How many brothers and sisters do you have?	Referential	6	25	Teacher - Student		
		4. Do you wish to visit the Bermuda Triangle?	Referential	6	26	Teacher - Student		
		5. Your sports' boots aren't in their place. Your brother has a match today. but he claims that he didn't take it. What do you think?	Referential	6	22	Teacher – Student		
		6. Do you remember the meaning of "pirates"?	Display	6	12	Teacher - Student		
		7. How does Methane gas cause changes?	Display	6	10	Teacher - Student		
		8. How do you feel about the subjects of this year?	Referential	6	21	Teacher – Student		

Number of students interacting after intervention:

The numbers of students who attempted to participate varied. This could be due to the nature of the question (i.e. if they were used to being asked these questions or not) more than to the type of that question. For example, the number of boys who raised their hands to answer the first display question about the meaning of a word was 24; however it was only 12 and 10 for another two display questions which needed referring back to the text. Thus, even the different kinds of display questions (yes/no, multiple choice, or the routine questions which are asked at the beginning of each class) didn't have high number of participants. On the other hand, referential questions motivated higher numbers of students to answer. These numbers were 21, 22, 25, 26, and 29.

Day Six: (Literary/ females – 38 students)

The lesson was a comprehension text about the "Development of Writing".

Types of Varied questions asked:

The teacher asked 10 questions four of which were display and six were referential questions. The teacher shifted once from the text to different type of questions then back to the text.

Intervention: Extending the wait-time & Varying the Question

female literary/ 37 students		Table 3.6 descriptive analysis of question types, wait time, and number of participants pertaining to stage two/ phase two /day six					
Day Six	Topic/ activity	Question	Type: Ref./Dis.	Wait- time (seconds)	No. of students attempting interaction	Type of interaction	
Duy Six	Comprehension	1. What is the title?	Display	6	19	Teacher – Student	
	"The story of storing information"	2. What are the ways of storing information?	Display	6	9	Teacher – Student	
		3. How were letters developed?	Display	6	7	Teacher - Student	
		4. How old are you?	Referential	6	19	Teacher - Student	
		5. How many brothers and sisters do you have?	Referential	6	20	Teacher – Student	
		6. Do you like living in Se'ir?	Referential	6	30	Teacher - Student	
		7. Don't you prefer to go else where?	Referential	6	26	Teacher - Student	
		8. When did writing develop?	Display	6	11	Teacher - Student	
		9. how many rooms does your house consist of?	Referential	6	14	Teacher – Student	
		10. Do you like summer or winter?	Referential	6	29	Teacher - Student	

types

Number of students interacting after intervention:

The numbers of students who wanted to answer the display questions were 7, 9, 11, and 19 as shown in table (3.6); but numbers were 11, 19, 20, 26, 29, and 30 for the referential ones.

Patterns of interaction:

Interaction varied between "teacher – student" to "student – student" patterns. For example, when the teacher asked "What is your father's job?", the students started to ask each other about their fathers' jobs using English and sometimes using Arabic to help other students to answer correctly. Another example, when the teacher asked the referential question "What is your favourite TV show?", students started comparing their favourite shows among each other then they raised their hands to give answers to the teacher. Most students used Arabic among each other and to compare their answers then they gave their answers to the teacher in English.

The following table summarizes the major results of the two stages:

a summary table showing the percentage of participation, total number of display and referential questions in the two stages

stage	scientific	literary	tot.no. of display questions	tot.no. of referential questions	range of wait-time	percentage of participation
one	72	115	50	10	2.5-3 seconds	31%
two/ phase one	72	73	27	12	6 seconds	45.25%
two/ phase two	50	116	18	34	6 seconds	65.33%

II. Interviews:

In this section, the results of the ten interviews, which were made with ten high school teachers, are presented.

These interviews were conducted building on the results of the observations that showed the important role question types and wait-time played in encouraging students to participate. It also aimed at exploring the teachers' viewpoints towards the implementation and treatment of the two variables during their English Language classes. The questions of the interviews were settled on by the help and validation of the supervisor of the thesis and two other high school teachers. **Question number one**: Do you think you give your students enough time after asking a question? How long do you usually wait?

As for the first question, five teachers said that they maintain enough wait –time that reaches 4-5 or 6-8 seconds. Some of them repeated the question, or paraphrased it. Two teachers revealed that if they waited, they only would wait for 2 seconds because they don't have much time to cover the material. Three teachers said that they don't wait at all. They just ask the question and directly start receiving answers. One of the three teachers said that he called out the name of a certain student to answer. For example, "What's today, Ahmad?".

Another teacher justified not giving wait-time by claiming that she doesn't have time. One of the teachers who maintain 1-2 seconds wait-time justified this by saying that she needed time to cover the material. Another teacher who seemed to have a negative attitude towards "weak" students described this kind of students as "lazy students" who don't deserve to spend time on making them take part.

Question number two: Do you vary when asking questions among the different types of questions?

This question required the researcher to explain the nature of referential questions because all the teachers seemed unaware of its nature. The researcher explained this to them, and they answered the question. The first teacher declared that she only asked questions that are text – based. She admitted that she has never heard of referential questions. The second teacher declared that she rarely asked a referential question. The third teacher said that he usually asks referential question since many exercises require students to refer to their personal experience. The fourth teacher first talked about other types of questions like yes/no, true /false, etc. and he assured that he uses

these types. But then he asked the researcher about the nature of referential questions. Afterwards, he emphasized not using them.

Four other teachers said that they don't use referential questions. They only ask questions about the text itself. The eighth teacher said that she rarely asked such questions, but she didn't have a convincing reason. The tenth teacher showed her enthusiasm to try asking this kind by saying that "it's a good idea".

The third question: Do you think that these two techniques affect the quantity and quality of students' interaction?

Six teachers emphasized that wait-time enables more students to participate since it offers them wider chance to think and take part. The other four teachers were not sure of the influence of wait-time on interaction. 70% of the teachers who were interviewed indicated that they don't normally ask referential questions, so they don't know its influence.

Questions four and five: Would you like to try extending the wait-time after asking questions? Why?

Do you expect that this may influence students' participation? How?

Nine teachers were ready to extend it although some of them already have long wait-time. These teachers expressed that the idea seems good, practical and useful. They emphasized that such extension encourages students to participate and consequently, increase the number of students who attempted participation. Some of the nine teachers were not sure of the effect because they didn't use wait-time before. The other teacher who was not willing to extend wait-time seemed to be forming a negative attitude towards "weak" students by calling them "lazy or hopeless cases". This teacher said that she wouldn't extend time because time limits didn't allow

wasting any second waiting for those "hopeless cases" to react. She believes that this doesn't have impact on participation.

Questions six & seven: Would you like to try varying the question types- asking display and referential questions equally?

Do you expect that students' participation will increase or decrease or stay the same with this variation in question types? Why?

These questions which were concerned with teachers' readiness to ask referential questions and the influence on students' participation, were answered differently. Nine teachers agreed to ask referential questions or to increase the number explaining that this may contribute to an increase in participation and may refresh their memories. One of the nine teachers said that she was not sure that asking more referential questions may help more students to engage. Some of these teachers expressed concern over the difficulty of integrating the two types at the same time. The tenth teacher didn't agree that asking more referential questions may result in inevitable increase in the number of participants. Therefore, she concluded that she would not use this technique.

Conclusion

The major result of the study is that extending the Wait-time does actually have influence on students' participation in both streams (boys and girls) but it has greater influence on the scientific stream students. As for question types, it was significantly evident that asking more referential questions than display ones resulted in an increase in the number of students who wanted to participate. Another evident result was that the students' interaction expanded to include a new pattern of a "student-teacher" (student-initiated questions) and "Student – Student" interaction, both of which may

be contrasted with the traditional Initiate-Response-Feedback (IRF) pattern which revolves around the teacher.

Chapter five <u>Discussion</u>

In this chapter the results of the current study will be thoroughly discussed and compared to previous studies of different researchers. Wait-time and question types' results and conclusions will be presented according to the order of the research questions but in accordance with these two variables and changes in the three stages as well. i.e.; Wait-time will be discussed throughout the study to highlight the influence it makes. Then the treatment of question types will also be discussed.

4.1. Wait-Time

<u>Research question number one & two</u>: How long do teachers of the Eleventh Grade (Scientific & Literary / Boys & Girls) naturally wait after asking a question?

It was evidently noticed throughout the observations that the observed teachers – males and females- used an average wait-time of (2.5 -3 seconds) naturally as shown in table (4.1.a) below. Richards (1996) presents wait-time as an important dimension of teacher's questioning skill. The author clarifies that teachers often use a very short wait-time (e.g., one second) which is rarely sufficient to enable students to respond. Richards (1996) quotes Long et al. (1984): "when wait-time is increased to three to five seconds, the amount of student participation as well as the quality of that participation often increase." (p.188)

This is shown in table (4.1.a) below.

a summary table for stage one									
numbere	scientific	literary	referential	display	male	female			
numbers	72	115	10	50	63	124			
percentage	39%	61.00%	16.70%	83.30%	33.70%	66.30%			
per. Participation	37.13%	24.90%	16.70%	83.30%	38.70%	27.20%			

This study- unlike other previous studies- compared the different streams and gender of the same level of students which is the eleventh grade. The researcher noticed that the scientific stream students generally had great participation in the natural use of wait-time. It is certain that this result is due to the classification of students amongst scientific and literary according to their marks. The scientific stream students showed quicker response to the questions of their teachers. The literary stream students showed less amount of participation than the scientific stream students. Some reasons may have led to this result including the classification of students according to their marks, as mentioned earlier, and the overcrowded classes of the literary stream.

Brock's (1986) conclusion for the wait-time training group is that they maintain significantly longer wait-time (comparing durations of more than three seconds against those of less than three seconds) in the observations following training.

Some teachers naturally waited 3-4 seconds after asking questions. One teacher spent this wait-time repeating the question or paraphrasing it which helped more students to have the chance to participate. For example:

Teacher: What does "manual" mean?

Teacher: the dictionary is a manual? What does the word mean? Teacher: manuals are used to give us advice and tips to follow in certain situations. So "manual" mean.....

Other teachers tended to call out a certain student's name to answer directly after asking the question. For example:

Teacher: How people in the past used to store information, Rana?Rana: by symbols and marks.

Teacher: Riham, Where did the first alphabet develop?

Riham: in Somaria.

It was also noted that when teachers asked a Yes/ No question of whatever nature it was (display or referential), they didn't wait long and ask students directly to answer; and students-in turn- rushed to utter an answer "yes" or "no" spontaneously without being sure of their answers. The amount of participation in such a case was high to some extent. Another noticed result of the observations was that the one or two referential questions, which were naturally asked, were given more wait-time 5-6 seconds than the display ones. This is due to the nature of the referential questions which needs more time to think of as it didn't exist in the text. Another reason behind giving longer wait-time for referential questions is that these questions reflect more natural and authentic communication that sheds light on personal information about the students themselves.

<u>Research questions number Five & Six (regarding wait-time):</u> What influence does extending the wait-time have on the quantity and quality of interaction among students in the Eleventh Grade (Scientific & Literary streams/ Boys & Girls)?

When wait-time was extended to 6 seconds in stage2 phase1, it was noted that the number of participants increased to a certain extent. While the average participation was 24.9% in the literary stream in the first stage, this percentage changed to an average of 28.2% as clear in table (4.1.b)

4.1.b- summary table for stage two /phase one								
numbers	scientific	literary	referential	display	male	female		
numbers	72	73	12	27	63	82		
percentage	49.60%	50.40%	30.76%	69.23%	43.40%	56.60%		
per. Participation	62.30%	28.20%	30.76%	69.23%	37.80%	49.7%		

Extending the wait-time partially raised the number of those students who wished to participate, but these trials were not necessarily correct. The routine questions about the date, day and title had more participants with more correct answers. For the Yes/ No questions, more students wished to answer.

However, in the basic questions upon which comprehending the text depended, the extension of wait-time didn't affect the quality of their answers. Students still answered with poor, short utterances which in most cases were fragments or ungrammatical. For example, when students were asked, "What does The Day After Tomorrow refer to?" Thirteen students rushed to raise their hands but most of them answered "بعد بكرة" and some said "unit 9" but very few said the correct answer that it is a "name of a film."

Meanwhile, the story was steadily different in the scientific stream where the average percentage increased from 37.13%, which is evidently higher than that of the literary stream, to 62.3% as a result of extending the wait-time in the second stage.

The Scientific stream students weren't able to utter meaningful and long utterances, either. Students of both streams faced two difficulties; the first was that they were incapable of comprehending the whole question or the meaning of that question. So they tried sometimes to ask for translation or help from the teacher or other students. The second difficulty was that when they understood the question, students seemed unable to express their answers and ideas. Regarding this concern, Holley and King (1974) found that "if the teacher allowed longer Wait-Time after a learner made a mistake or after the teacher posed a question, the learner, then, was much better able to respond correctly" (Tsui 1995:124). However, this does not always mean that extending Wait-Time will necessarily improve students'

responsiveness or participation. In a study of teachers' action research, it was found that excessive lengthening of wait-time exacerbated anxiety amongst students.

Brock (1986) similarly argues that extending wait time in his study did not result in longer student utterances. They kept answering briefly and with one or two words. When teachers do not give enough Wait-Time for learners to process a question and formulate an answer, this forms a decisive reason for the lack of response from students. Van Lier (1988), on the other hand, presents the results of his study which indicate that increasing wait-time has a beneficial effect on the quality of learners' responses. He states that "the issue of Wait- Time is also very relevant to the investigation of Repair and correction in L2 classrooms, where it can be shown that longer wait-time increases opportunities of Self-repair." When extending the waittime it was evident that students were first given chances to think, look for and answer, and second they were allowed to benefit from time extension to correct their answers and rephrase their previous answers.

To sum up, it could be concluded that extending the wait-time had partial influence on the quantity of students' participation in the literary stream (boys and girls), but greater influence on the quantity of students' participation in the scientific stream –boys and girls. The influence of extending the wait-time on the quality of students' participation was good, but students' answers were still short and ungrammatical. They were unable to form full grammatical and meaningful sentences.

4.2. Question- Types

<u>Research questions Three & Four</u>: What types of questions prevail in the Eleventh Grade (literary & scientific / boys & girls), Referential or Display? In stage one, it was observed that teachers naturally asked extremely more display questions than referential ones to the extent that some classes had no referential questions at all. The display questions totaled 50 in stage one which forms 83.3% of the total number of questions that were 60 altogether. These numbers show the dominance of the display questions over the referential ones- which were 10 questions and formed only 16.7%. This big difference between display and referential questions could significantly determine the quality and quantity of the interaction that emerged in these classes.

The interaction was a typical "Teacher – Student" or teacher initiated one through which the quantity of participants' answers varied between the literary stream where participation formed 24.9 % in the first stage and increased to 28.2% of the total number of students in the class in stage two- and the scientific stream students whose participation formed 37.1 % in the first stage and increased this percentage to 62.3%.

The total number of questions which were asked by the teacher in stage two were 39 questions, 27 questions were display which formed 69.2%; and 12 questions were referential which formed 30.8%.

Thus, teachers, as evident from the results of this study, tended naturally to ask display questions which were almost focused on the reading texts only without any attempt to move to other topics involving other types of questions. They were absolutely text- focused teachers and questions.

This fact played against the reliability of students' participation. On the one hand, students tended to depend heavily on the so-called (guide)- a book written by a teacher and it contains all the typical answers of all the questions and exercises in the syllabus. Consequently, students ran to find the easiest way of doing homework and to

get well-prepared for the lesson as well. When the teacher asked a direct question from the text, the students found difficulty in taking part if they weren't prepared from the (guide). This phenomenon was clearer among literary stream students than the scientific stream ones. On the other hand, when the question was a yes/no question, students raised their hands or answered without being sure of their answers.

To conclude, asking more display questions deprived students of the chance to take part in real communicative interaction because referential questions could bring more real communication. The scientific stream students – one may assume- were more capable than literary students of getting involved in real communication when more referential questions were asked. They also showed more ability to get involved in a process of negotiation of meaning. For example,

Teacher: What is your favourite TV show?

Student 1: Oprah. (then, to another student). Tahani, What is your favourite show?

Student 2 to student 3: what is the meaning of the question? Student 3 to student 2 (in Arabic) $\tilde{u} \neq \hat{U}^{\circ} \quad \hat{U}$ Student 2: Ahhh! Dr. phil.

Referential questions allow students to negotiate and discuss issues of students' interests. This result emerged in stage 2 phase2 where referential questions were consciously increased more than the display ones.

<u>Research question Seven</u>: How does varying the types of questions influence the quantity and quality of students' interaction in the literary and scientific streams / boys and girls?

A significant difference emerged in stage2 phase2 when referential questions were consciously increased to lead a different discussion within the basic track of class activities.

The study shows that increasing the number of referential questions had great influence on the quantity of participation, but the quality showed a slight improvement or no improvement at all in the two streams in both schools.

The number of referential questions in the second phase of stage2 was increased to 34 questions which formed 65.38% of total questions (52 in total) as shown in table (4.2.a).

a summary table for stage two /phase two								
numbers	scientific	literary	referential	display	male	female		
numbers	50	116	34	18	66	100		
percentage	30.00%	69.90%	65.40%	34.60%	39.80%	60.20%		
Percentage of Participation	80.35%	50.30%	65.38%	34.60%	65.5%-	65.2%		

Table (2.4.b)

	percentage of participation								
stage	scientific	literary	referential	display					
one	37.13%	24.90%	16.70%	83.30%					
Two /phase one	62.30%	28.20%	30.76%	69.23%					
Two/ phase									
two	80.35%	50.30%	65.38%	34.60%					

This increase, in turn, has increased the percentage of participation to 80.35% in the scientific stream and 50.3% in the literary stream. These figures proved that both question types and wait-time play significant and different roles in motivating more numbers of students (quantity) to raise their hands for the sake of interaction; but neither extending wait-time, nor increasing referential questions had impact on the quality of students' answers. In other words, students still couldn't utter more than those short utterances or single words for most questions including the questions which needed long statements or discussion. They were incapable of producing long utterances to express their ideas. For example,

Teacher: Do you like living in Se'ir? Student: yes. Teacher: Don't you like to live elsewhere? Student: No. Teacher: Why? Student: mmm! Beautiful Se'ir.

Brock (1986) confirms there was a consistent tendency for display questions to elicit more student turns and a tendency for referential questions to elicit slightly more student utterances. In other words, referential questions motivate longer sentences, clearer and more real communication.

Moreover, the students looked hesitant and lacked confidence or ability to take part in a discussion in English. This explained why they sometimes used Arabic to convey their ideas. For example, when they were asked, "How many brothers and sisters do you have?". Most of them answered "Two **brother** and three **sister**" or similar ungrammatical answers.

Moreover, it was significantly clear that the students in the scientific stream were more engaged in participation both in the natural setting of learning and during intervention than the literary stream students. When wait-time was extended, more students were given the chance to take part. Then, when referential questions were increased in stage three, participation increased further. The students in the literary stream, however, progressed steadily. When wait-time was extended, students were offered a chance to think and attempt to participate. Their participation has increased steadily. But when referential questions were asked, the number of students proved to be increasing in a good way.

Another note that is worth discussing is the difference between males and females in participation. In stage one, it was observed that the male students' participation was greater that that of the females. The percentage of boys' participation was 38.7% of the total number of students involved in the study, but that of the girls was 27.2% of the total number of students involved in the study. In the literary stream, participating boys were 34.9% of the total class, but participating girls formed only 20%. In the scientific stream boys' participation was 42.5%, while girls' participation was 34.5%. This shows that male students participated more than female students in the same stream. In stage2 phase1, however, results were slightly different. Girls' participation increased to 49.7% (scientific 69.1% and literary 29.6%), but that of boys increased to 37.8% (scientific 48.7% and literary 26.8%).

This change may be due to the number of classes observed for both genders. The scientific stream sections are naturally less in number than the literary stream sections. Also, the males' classes are observed less than the females' classes because some teachers refused to participate for personal reasons. In phase two of stage two, girls' participation generally increased to 65.2% (scientific 84.8%, literary 45.6% while boys' participation increased to 65.5%- scientific 75.9% and literary 55% as table 4.2.c shows.

Difference in participation between males and remaies								
stage	Males Females (%)							
Store ene	38.70%	scientific	literary	27.20%	scientific	literary		
Stage one	30.70 /0	42.5%	34.9%	21.20/0	34.5%	20%		
Stage two/phase one	37.8%	48.7%	26.8%	49.7%	69.1%	29.6%		
Stage two/phase two	65.5%	75.9%	55%	65.2%	84.8%	45.6%		

Difference in participation between males and females

4.3. Patterns of Interaction

Finally, it is worth mentioning that students looked more interested and involved in the topics of the referential questions than in the display ones. This interest created an evident pattern of interaction which should be added to the typical Teacher – Student pattern. The new pattern emerged when students started to ask each other for clarifications about the asked referential questions or asking students about their own personal answers. In this way they created a Student – Student pattern of interaction and were all involved in negotiation of meaning, a major dimension of interaction within the communicative framework.

When this pattern of interaction is practiced or oriented in the right direction by the teacher, tasks and activities would be easily and smoothly carried out. This technique changes the role dynamics in the classroom from the traditional, teacher – fronted one to a learner-oriented one which enables learners to present, practice, and then produce more effective and meaningful communication.

4.4. Discussion of the interviews' results:

As for the interviews, the researcher arrived at the following findings:

- It was evident that the teachers were unaware of the use and importance of both wait-time and varying question types between display and referential questions. Most teachers asked for explanation of the nature of the two terms.
- 2. The researcher noticed that some teachers made the time limit a justification to ignore important factors like these that contribute to achieving better results.

- 3. Some teachers revealed that maintaining long wait- time gives students chances to make noises. Tsui (1995) states "Many teachers fear that lengthy Wait-time slows down the pace of teaching and leads to disruption in the classroom, or that they might appear to be inefficient and incompetent" (p.124, (cited in Carter and Nunan's <u>Cambridge Guide to</u> <u>Teaching English to Speakers of Other Languages</u>, 2001.)
- 4. The general finding was that the teachers seemed enthusiastictheoretically at least- to develop their teaching methods by showing interest to implement the two recommended techniques.

Conclusion

This chapter provided in depth discussion of the basic findings of the whole project. All this may be summarized in one sentence; wait-time and question type variation leads to better production and real communication. These two variables enable students to get involved in student – student interaction which also allows negotiation of meaning between the students and their teacher. The interaction now is no longer a reflection of the IRF pattern.

In other words, extending the wait-time actually resulted in involving more participants (larger number of students who raise their hands to answer), but this extension doesn't necessarily result in longer utterances or more grammatical and meaningful sentences.

As for varying of question types, it was finally concluded that there was more effective participation and many more learners who wanted to participate. An

important note which deserves to be mentioned in this context is the fact that referential questions created more natural interaction and discourse.

Conclusion

The researcher came up out with the following conclusions:

- 1. Results show that teachers do not ask enough referential questions in their natural teaching setting. And most of them do not maintain enough wait-time after each question.
- 2. Extending the wait-time is likely to have an influence on the quantity of participation in both streams but mainly in the scientific stream.
- 3. Increasing the number of referential questions has a great influence on students' participation in both streams but greater in the scientific.
- 4. Male students showed more participation in the natural setting, but after the treatment of these two variables, female students showed more participation.
- 5. High school English teachers are highly unaware of the nature and importance of wait-time and question type variation.
- 6. Results reveal that extending the wait-time and asking more referential questions have influence on the quality of students' participation but this influence is limited and partial. In other words, students are still unable to form long, grammatical sentences. Their answers consisted of one or two words, or of poor fragments which in many cases included the message.
- **7.** Asking more referential questions made students capable of getting involved in real communication which refers to their personal experience and this led to creating an atmosphere of negotiation of meaning.

Recommendations

Building on all the earlier findings and conclusions, the researcher would like to provide the following recommendations for English language teachers, syllabus designers, and for forthcoming research.

First, the researcher finds it of great value for teachers to consider the following suggestions in their teaching process:

- English language teachers are requested to get benefit from the results and findings of this study since these findings provide two new techniques which can contribute (if positively used) to the improvement of students' performance in language classrooms.
- 2. It was found that teachers rarely ask referential questions and this deprives students from the real chance to communicate authentically. Therefore, teachers should ask more referential questions so as to create more real communication in order to meet the basic objective of the Palestinian governmental syllabus "English for Palestine". This syllabus, as mentioned earlier, adopts the Communicative Language Teaching Approach which is, in turn, concerned with building the learners' communicative competence.
- 3. Teachers are recommended to offer their students enough wait-time after asking each to give them the chance to think and participate. Offering waittime reinforces the students' confidence regarding the correctness of their answers. On the other hand, without enough wait-time, students were incapable of taking part in the interaction and consequently lost self confidence thus, becoming passive learners in the classroom

- 4. Teachers are advised to create tasks that address the communicative aspects of language skills to encourage students to communicate in different activities in-class and out-of- class. They should avoid teacher fronted classes and create student student interactions.
- 5. Questioning is one of the basic techniques of teaching and learning, so teachers are advised to ask more questions of both types and to use questions as a teaching technique, something that was effectively done in many teaching methods including the Direct method, the Audiolingual method, and the Natural approach.

Second, the researcher would like to offer two suggestions addressed to the syllabus designers, material planners and to the academic supervisors. These suggestions are:

- It was deduced from the findings of the interviews that the vast majority of the high school teachers who were interviewed didn't have any idea about such issues like display questions, referential questions, wait-time, patterns of interaction, etc. Therefore, academic supervisors as well as material developers should identify such terms to their teachers in separate training courses and present examples and exercises of them in the curriculum.
- 2. They should raise teachers' awareness to the importance of wait-time and question types and to their possible influence on students' performance.

Finally, the researcher recommends that other researchers conduct further research in the same field in the future to test other interrelated variables that may contribute to the improvement of interaction in the Palestinian classrooms. Possible topics include research on other aspects of interaction such as question distribution and turn taking,

teacher talk and comprehensible input as well as patterns of feedback in the foreign language classroom.

Appendices

Appendix A

Interview questions

- Do you think you give your students enough time after asking a question? How long do you usually wait?
- 2. Do you vary when asking questions among the different types of questions?
- 3. Do you think that these two techniques affect the quantity and quality of students' interaction?
- 4. Would you like to try extending the wait-time after asking questions? Why?
- 5. Do you expect that this may influence students' participation? How?
- 6. Would you like to try varying the question types- asking display and referential questions equally?
- 7. Do you expect that students' participation will increase or decrease or stay the same with this variation in question types? Why?

Appendix B

Interviews

1. Interview one (female teacher):

- Do you offer your students enough wait-time after asking a question? How long do you usually wait?
- I sometimes wait and sometimes not. This depends on the question and the students, whether they are scientific or literary.
- 2. Do you vary in asking questions between the different types for example do you ask referential questions?
- What do you mean by referential? I always ask students questions that are related to the lesson.
- 3. Do these two techniques affect students' participation?
- I don't find any difference when I sometimes maintain wait-time. But regarding questions I really don't know because I don't ask such questions.
- 4. Would you like to try extending the wait-time?
- I will use wait -time first, then I will try extending it.
- 5. Do you expect this will influence their participation?
- I may have an influence on the number of students who tries to participate.
- 6. Would you like to try varying the questions that you ask between display and referential?
- It is a good idea! But how can I ask questions of different topics among other questions regarding the lesson.
- 7. Do you expect that students' participation will go up or fall down or keep the same?
- I'm not sure. This may help more students to participate.

Interview two (male teacher):

 Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- Mostly I don't ask the question and wait. In fact, I call out the name of a boy to answer.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- No, in fact, I don't ask such questions.

3. Do these two techniques affect students' participation?

- As for wait time, I don't pay attention to the difference.

4. Would you like to try extending the wait-time?

-I may try to use wait-time

5. Do you expect this will influence their participation?

- I don't know. But of course it will have an influence on interaction.

6. Would you like to try varying the questions that you ask between display and referential?

- I will ask referential questions to refresh students' memories and to make them communicate.

7. Do you expect that students' participation will go up or fall down or keep the same?

- Yes, it will affect the number of students.

Interview three (male teacher):

 Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- Yes, I do offer wait-time. Usually I wait for 4-5 seconds.

 Do you vary in asking questions between the different types for example do you ask referential questions?

- Of course I do. Many exercises require students to talk about their personal experience.

3. Do these two techniques affect students' participation?

- I feel that students seem more enthusiastic.

4. Would you like to try extending the wait-time?

- I think that 5 seconds seems enough.

5. Do you expect this will influence their participation?

- Sometimes yes. They have enough time to think. But in some cases extending the wait-time allows noises.

6. Would you like to try varying the questions that you ask between display and referential?

- I think asking different questions away from the lesson will mix students up.

7. Do you expect that students' participation will go up or fall down or keep the same?

- From my experience, it didn't have influence on interaction.

Interview four: (male teacher)

1. Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- I don't get the meaning of wait -time. (Researcher explains)

Aha, I don't really give much time. I wait only for one second; I call students' names one by one.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- I ask yes/no questions, true / false, WH questions. But what is referential? (Researcher explains)

I only ask questions about the lesson.

3. Do these two techniques affect students' participation?

- I don't know, because I don't use them so far.

- 4. Would you like to try extending the wait-time?
- I will use wait-time, it seems useful.
- 5. Do you expect this will influence their participation?
- This is certain. It will encourage more students to take part.
- 6. Would you like to try varying the questions that you ask between display and referential?
- I will try to vary between questions.
- 7. Do you expect that students' participation will go up or fall down or keep the same?
- It also may encourage more participation.

Interview five (male teacher):

 Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- I usually wait enough after asking a question 6-8 seconds usually.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- Indeed, no, I don't. I stick to the questions of the lesson which I teach.

3. Do these two techniques affect students' participation?

- I think offering students enough wait-time enables more learners to take part and also enables them to form better answers.

4. Would you like to try extending the wait-time?

- Actually I wait enough but if this produces better results in will extend more.
 - 5. Do you expect this will influence their participation?

- I'm sure that more students will be given the chance to participate.

6. Would you like to try varying the questions that you ask between display and referential?

- Why not.

7. Do you expect that students' participation will go up or fall down or keep the same?

- This also will contribute to the increase of the number of participants, and offers students chances to involve in real communication.

Interview six (male teacher):

 Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- I usually give wait-time, but not long- two seconds. In my opinion, this is not sufficient but I need time to go fast to cover the material.

 Do you vary in asking questions between the different types for example do you ask referential questions?

- No, I have no idea about referential questions. (researcher explains).

- I only ask questions that are related to the lesson or text.
 - 3. Do these two techniques affect students' participation?
- I don't know because I don't use these procedures.
 - 4. Would you like to try extending the wait-time?
- May be. By the way, it seems practical.
 - 5. Do you expect this will influence their participation?

- Yes, it will affect participation. They will participate in greater numbers.

6. Would you like to try varying the questions that you ask between display and referential?

- I really don't know how to manage asking questions of different topics together at once.

7. Do you expect that students' participation will go up or fall down or keep the same?

- It could increase participation.

Interview seven (female teacher):

1. Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- Maximum I wait for only 1-2 seconds. I directly start receiving answers. There is no time to spend on making lazy students take part.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- I ask questions which are related to the text.

3. Do these two techniques affect students' participation?

- No, I don't think so, good students participate and lazy students are sleeping regardless of the time given or types of questions asked.

4 Would you like to try extending the wait-time?

- No, because time limit doesn't allow wasting any second waiting for hopeless cases to take part.

5. Do you expect this will influence their participation?

- No. I don't find it as a useful factor.

6. Would you like to try varying the questions that you ask between display and referential?

- It's hard to integrate these two types. Students also will find it difficult.

7. Do you expect that students' participation will go up or fall down or keep the same?

- I don't think so.

Interview eight (female teacher):

1. Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- Yes, I naturally wait- long and give students chance to think and participate in greater numbers by repeating and paraphrasing the question. Usually wait-time reaches 8 seconds.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- Very rarely I ask referential questions. In fact, I don't have a convincing reason for this.

- 3. Do these two techniques affect students' participation?
- Of course these have great influence on students' production.
 - 4. Would you like to try extending the wait-time?

- I'm ready to try this if this helps more students to engage.

- 5. Do you expect this will influence their participation?
- Yes, it will increase the number of participants.
 - 6. Would you like to try varying the questions that you ask between display and referential?

- I will increase the number of referential questions.

7. Do you expect that students' participation will go up or fall down or keep the same?

- It could have a great impact on the quality of communication.

Interview nine (female teacher):

- Do you offer your students enough wait-time after asking a question? How long do you usually wait?
- I usually wait. Sometimes I offer 5 seconds wait-time.
 - Do you vary in asking questions between the different types for example do you ask referential questions?
- I really ask usual questions related to the lesson.
 - 3. Do these two techniques affect students' participation?
- Wait-time gives students chances to participate in greater numbers.
 - 4. Would you like to try extending the wait-time?
- I think 5 seconds are enough. But if necessary, I will try it.
 - 5. Do you expect this will influence their participation?
- Any new change encourages students to take part.
 - 6. Would you like to try varying the questions that you ask between display and referential?

Why not, although it will be a challenge to integrate the two types together.

- 7. Do you expect that students' participation will go up or fall down or keep the same?
- Varying questions affects positively the number of participants.

Interview ten (female teacher):

 Do you offer your students enough wait-time after asking a question? How long do you usually wait?

- I keep paraphrasing the same question twice or thrice and this gives more students chances to think. I usually maintain 8 seconds.

2. Do you vary in asking questions between the different types for example do you ask referential questions?

- Frankly speaking, I'm not aware of this kind of questions " what do you mean by referential? (Researcher explains)

- No. in very rare occasions I might ask such questions. But it looks as a good idea to try.

3. Do these two techniques affect students' participation?

- Yes, as for wait-time, I certainly believe that it has influence on the number of participants.

4. Would you like to try extending the wait-time?

- More than this. Ok. Why not.

5. Do you expect this will influence their participation?

- It may increase more the number of students who participate.

6. Would you like to try varying the questions that you ask between display and referential?

- Certainly I will ask referential questions.

7. Do you expect that students' participation will go up or fall down or keep the same?

- I'm optimistic about that. I'm sure it will positively work.

Classroom interaction

Appendix C Data collection sheets

Classroom Observation Sheet Stage One No-intervention

Class: Stream: Gender: Number of Students: Class time:

Day One	Topic/activity	Question	Type(Ref. / Dis.)	Wait-time	Type of interaction emerging (student- student or teacher-	No. of students attempting interaction (raising their	Incorrect response(s)	Correct response(s)
					teacher-	their		
					student)	hands)		

Classroom Observation Sheet Stage Two/ phase one Intervention Extending wait time only

Class: Stream: Gender: Number of Students: Class time:

Day One	Topic/activity	Question	Type(Ref. / Dis.)	Wait-time extended consciously	Type of interaction emerging (student- student or teacher- student)	No. of students attempting interaction (raising their hands)	Incorrect response(s)	Correct response(s)	
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Classroom Observation Sheet Stage Two/ phase two

		Ex	<u>tending wait time</u> a	and <u>varying q</u>	uestion types			
Class:								
Stream:								
Gender:								
Number of St	udents:							
Class time:								
Day One	Topic/activity	Question	Type(Ref. /	Wait-	Type of	No. of students	Incorrect	Correct
			Dis.) number	time-	interaction	attempting	response(s)	response(s)
			of referential	extended	emerging	interaction		
			questions		(student-	(raising their		
			increased		student or	hands)		
			consciously by		teacher-	,		
			the teacher		student)			
					/			

Intervention Extending wait time and <u>varying question types</u>



Appendix D Reading texts



This dangerous world

Reading reconstrantized

Focus

1

The second second

and the strength of the set of the set of the strength of the

Look at the pictures. Explain ways that we try to protect ourselves from danger.





vaccination programmes







fire escapes

lifebelts

Explain man-made and natural dangers that we still face.

nii we shi tin kananan wa je e i s

Batore you read

- Look at the book illustration on the next page and answer these questions.
- 1 What sort of book is this?
- 2 Look at the photo. Say what has happened and is nappening.

White you read

Say how the first section of the text relates to the other four.

After you read

- Answer these questions.
- 1 In an emergency situation, what is the very first thing to do?
- What som of useful information: the 351 might the emergency services want?

3 What is normally the right order to do these things?

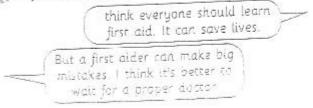
call the emergency services examine the casualties make the area safe start first aid

- 4 What should you do differently if it is impossible to stop the cause of danger or move it away?
- According to the text, what might the first aider ask other people to do, and how should she speak to them?
- Say what these words and phrases mean.
- 1 line 3: plan of action
- 2 line 11: professional help
- 3 line 18: put yourself in danger
- 4 line 24: off
- 5 line 50: report back to you
- Do these follow-up activities.
- Look at the four checks in Giving emergency first aid. Say how you would do these things.
- 2 Make sure you know the number(s) of all the emergency services you might need to call in real life.
- 3 Find out whether there is a good first aid kit and also a fire extinguisher in as many as possible of these places: a) at home, b) at school, c) at the workplaces of members of your family, and d) in vehicles that family members may own or use.





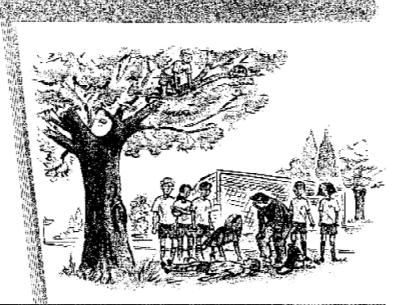
- 4 Find out where to learn first aid in your area.
- 🗇 Say what you think.



FIRST AD MANUAL

What to do in an emergency

> at work at home at leisure



ACTION IN AN EMERGENCY

- In an emergency, there may be several different cangers and problems, so you must think before you act. You need to work out a clear plan of action to do the following:
- 5 * assess the whole situation:
 - e make the area safe;
 - a give energeacy first aid:
 - * get help from other people.

Assessing the situation

- 10 You first need to study the situation quickly and find out whether professional help is available. If not, calmiy take charge and explain that you have first-aid skills. Ask yourself these questions:
 - s is there any continuing danger?
- 15 le la auyone's life in incrediate dangen?
 - a Is there anyone there who can help use?
 - 2 Do I need specialist help?

Remember, you must not put yourself in danger.

Making the area safe

25 There may still be danger at the condent site. If so, make the area sale. (You raight just need to cure off a switch to sup a machine.) If there has been a traffic coeldent, you must make sure engines are off one spack could cause a fire or

25 an explosion. If you counot make the area safe,

THE OPENING STREET, ST

then my to put some distance between the danger and any casualties.

Giving emergency first aid

When the area is safe, quickly carry out an -30 assessment of each casualty to decide who

- needs help most orgently. You have to find out the following things.
 - → Is he conscious?
 - « Can be breathe, is is the alrway open⁶
- 35 o is he breaching?
 - 9 Is there blood circulation³

Entergency first aid can now begin. It is also now possible to call the emergency services with useful information.

40 Getting help from other people

You may have to deal with several tasks and if so, you should ask other people to help you it you can. You might want them to:

- make the area safe;
- 45 le (ali the emergency services)
 - fetch first-aid equipment;
 - belp with first aid;
 - carry casualties to safety.

Make your requests slouply and clearly. Make so sure your helpers report back to you

enter with the second responsible to the tables and the tables of the second second second second second second

Encyclopedia of the World's Greatest Mysteries

Sea Mysteries

The Bermuda Triangle

This is a large area of the Atlantic which is famous because many ships and planes have mysteriously

- s disappeared there. The worst disaster of all was in 1918 when the American ship Cyclops, with a crew of 300, sank without even a ball for help. The most famous was the 1945 disappearance of Flight 19, with fourteen crew members.
- The five planes left Florida at 14.00 for a simple training flight. Then, at 15.45, they reported that their navigation equipment has stopped working.



西南北北北 人口相关的复数

- 💮 Answer these questions.
- What sort of book is this?
- 2 Look at the map. Why is the first-part of the text called *The Bermudo Triangle?* What might it be about?
- 3 Look at the picture. What might this ship be called?

10 여년에 관련되고 있는 것

 \gtrsim Confirm or correct your answers to 2 and 3 above.

가는 사람이 가지 않는 것

े Say what these numbers refer to.

a 300 - b 1945 - c 15.45 - d hundreds of metres. s December 5 - fitten

Answer these questions.

- Say what sort of mysterious event both parts of the text describe.
- How do we know for sure that the crews of Fight 14 became completely lost?

and they were lost. Later, they thought they were over the Gulf of Mexico and turned east to find

97

- 15 Florida. In fact, they must have been over the Atientic, and they should have flown west. Their radio messages started fading and at the same time, stormy weather was developing. Scon after dark, they must have run out of fuel and crashed.
- 20 fer out in the Atlantic. The tragedy was made worse soon afterwards when a rescue plane that was searching for them exploded and crashed.

Many people have survived and reported strange experiences in the Bermuda Triangle.

- 25 Planes suddenly drop hundrads of metres for no reason. Ships half sink and then slowly rise again. Large areas of sea turn rough and white with bubbles and rise up to a metre above the water around.
- 30 There is now an explanation, it seems that large amounts of methane gas (CH₂) lie beneath the Sermuda Triangle seabed – and many other parts of the world's seabeds. Methane has no colour or smell, it is light and it explodes easily.
 - What natural event seems to explain the strange events in the Bermuda Triangle?
 - 4 What shows that the people on the Mary Celeste must have hoped to sail safely to land?
 - 5 What were some of the explanations that people suggested after the Mary Celeste was found?
 - 6 What explanation of the mystery does the writer seem to bolieve?

Say who or what these/words refer to.

- line 3. ... have mysteriously disappeared there.
- 2 line 10: The five planes left Florida at 14.00 ...
- line 20: The tragedy was made worsa soon afterwards ...
- line 56: Might pirates have put them ...
- 5 line 58: ... they would have taken the ship ...

- 🖄 Say what these words and phrases mean.
- line 12: navigation equipment
- 2 line 47: on board
- 3 libre 55: the world wondered
- 4 ^{li}ne ólt below deck

- 35 Escapes of seabad gas can therefore explain everything. As it rises through the sea, the water becomes less dense and ships start sinking. When it rises into the sky, the same thing happens to the air and to planes. Large cas
- 40 escapes can also cause areas of rough, white water. Moreover, the rough water can "ionise" the sir above and give it an electrical charge, making navigation equipment useless. Finally, just a oigarette can cause a large methane explosion.

45 The Mary Celeste

In November 1872, Captain Briggs, his wife and daughter, and a crew of seven left New York on board his small cargo ship, the Mary Celeste. On December 5, the Dei Gratia discovered the

- so Mary Celeste a little to the east of the Azores. 60 away? It can't have done. At least one or two The ship was in good condition, but ... there was nobody on board. The cargo was complete Just the ship's lifeboat and navigation equipment were gone. All ten people must have left together.
- ss. But why, the world wondered.

🖏 Say what you think.

Disappearances, monsters, don't agree. Some UFOs ... there's always a things are just too simple explanation in the end.





맞너로 3(1) 二) Grandeler reference p133

We use some model verbs when we work out logically what is or was (not) true.

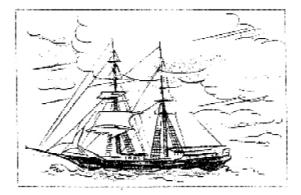
These include must, can, could, may and might.

Present

All these disasters can't just be accidents. There must be a reason for them.

Past

All ten people must have gone together. Could a water spout have carried everyone away? Encyclopedia of the World's Greatest Mysteries



Might pirates have attacked and put them in the lifeboat? But that can't have happened because they would have taken the ship and cargo. Could a water spout have carried everyone. people would have been below deck and would have survived. Could a sea monster have killed them all? Hardly.

Now, at last, there is a <u>better explanation</u> os. There may have been an∦

Make statements for 2, 3 and 4. Use can't/couldn't have, may/might have and must have.



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Photosophie and a state of the second

ا : داند.

Energy for tomorrow



Collecting weather duta, including rainfall, air pressure and wind speed

ខ្លាំង Answer these questions.

- Does your school collect weather cata? If so, what sorts? And why?
- Row would you describe your climate to someone who has never visited Paiestine?
- 3 Some people say there has been more extreme weather in recent years, with stuffins, floods and droughts, for example. What do you wink?
- 2 Ob you ever hear tack about climate change in Palestine? What some of change? Do you think this sort of ming is just talk?

Gefore you sead

37

- Check at the unit and text titles, the photos and the other visuals and answer these questions.
- 1. How do you think they relate to each objer?
- 2 Hove you seen the film The Day //free Fontorrow, where the photo on page 87 comes from "Piso, what did you (mink of 10)

weblie you read

爱》Do these tasks.

- 1 Confirm or correct your ideas in 2.1 above.
- Label the pitotos, diagram and map with the effect of the paragraph that each relates to.

After you read

्रि# Do these tasks

- Suggest (if ea for the visuals.
- Explain each visual as fully as possible with he from the paragraph that it relates to.

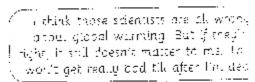
Say what these words and phrases mean.

- 1 title: the day after tomorrow
- 2 line 3: global warning
- 3 line 7. heavy use
- 4. line 10: greenbouse
- 5 (me 28) renewable

(2) Say who do what these words refer to.

- 1. The 15: ... in the last ton-
- 2 line 16: rise much further.
- 3 She 37, ... have also appeared.
- 4 data 20: Lare beginning to increase, 500.
- 5 She 41: ... these irenewables ...

🐇 Say what you think.

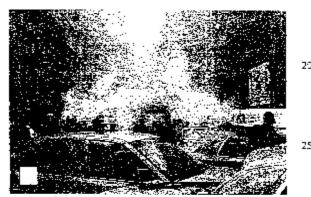




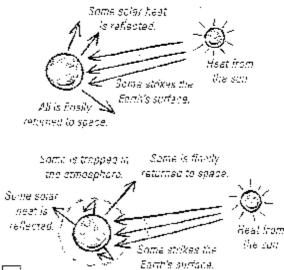
Meailing continued

Disaster the day after tomorrow?

30

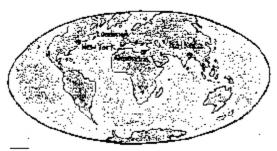


A In The Day after Tomorrow, New York is destroyed by violent climate change. Unlikely? Yos, but climate change and global warming are real, most scientists agree, and they are very worried.

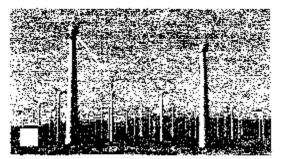


- Clobal warming is being caused largely by our heavy use of fossil fuels cool, oil and gas. When these are burned, cartons dioxide (CO₂) is emitted into the sthosphere. As CC₄ is a major 'greenhouse the sub's heat is trapped. This is
 - the igneenhouse effect".
 - Fising global temperatures have been measured, and most of the wond's potest years have been in the fast tem Temperatures are likely to rise much further.

 Some effects of global warming have also appeared. More extreme weather was predicted long ago, and it now seems to be
 happening. Sea levels are beginning to increase, too. This is partly because ice is meiting, and partly because water expands as it warms. If nothing is done, the soa is expected to rise 50 centimetres this century, and land and pities will be flooded.



7 Most solentists believe we must organity reduce fossilifuc use. Instead, much more irranewable' energy is going to be required. This is mainly energy from the sun, which equals the amount that a million power stations could produce.



We receive scial energy directly, and also indirectly – mainly in the form of wind. (Basicelly, which is created within hot air fises and cold air moves to replace it.) Direct scian energy is already buildoted by solar hooting systems in some countries. And wind farms, for example, are starting to gather indirect energy. However, devalopment of these energy sources has hardly started. Could these freeewables' help us avoid a grobal creation? Perhaps, but only 16 they are developed extremely rapidly.

1

Reading and language

The story of storing information

Early writing

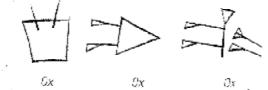
Until 5,500 years ago, the human brain was powerful enough to store everything that people needed to remember. Writing only developed

 when communities started growing larger and life became more complex. It became necessary then for ceople to record their laws and property, and great events.

The earliest writing developed in Sumeria (now

in image. After beginning as pictures, or pictograms, it gradually changed into a system of symbols called curve form.

Development of clineiform from early pictograms 5,500 years ago



early plotogram early curreiform later curreiform

Before you read

Answer these questions.

- How many ways of storing information can you think of?
- 2 What do the pictures in the text show?

While you read

Find out where the two forms of writing in the pictures came from.

After you read

🕄 Say what these numbers refer to.

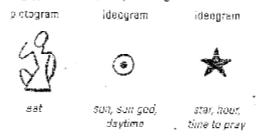
5,500 years ago - 30 - 22 - 323-2858C - 700 - 1436

- Say whether these statements are true (T) or false (F). Correct the false statements. (You need to refer to both text and pictures.)
- Before writing began, there were no laws or property.
- An ideogram could represent both an object and an idea.

Written symbols began to represent ideas as well as objects, and these more complex "ideats drawings" are called ideograms. Egyptian hieroglyphs (meaning: sacred carvings) included

Hieroglyphs from 5,000 years ago

ideograms as well as pictograms.



From alphabet to library

Some hieroglyphs were neither pictograms nor zo ideograms. They just represented sounds. These pointed towards the future of writing – the first alphabet. This probably developed at Ugarit in Syria about 3,600 years ago. While looking like

- 3 The Sumerians wrote in hieroglyphs.
- Hieroglyphs were a mixture of pictograms, ideograms and symbols that represented just sounds.
- The Ugarit alphabet also contained pictograms and ideograms.
- 6 The Phoenicians used the Ugarit alphabet to help them invent several other alphabets.
- Three Chinese Inventions made modern books possible.
- Today, people have to record so much information that they depend more on microchips than on books.

Say what these words and phrases mean.

- line 1: These pointed towards
- line 30: ... they carried it with them ...
- 3 line 41: human knowledge
- 4 line 60: ... flood of new information ...

5 line 63: ... the Information Age:

102

- 一部のの一部の一部の一部の

so it secret for 700 years. Finally, though, Musilm soldiers learned from some Chinese prisoners how to make paper. From there, the technique spread slowly west.

 Paper is thin, flexible and strong, and this ss made book production easier. However, books were still expensive and slow to produce since each one had to be copied by hand.

Six centuries ago, demand for books was growing rapidly. The thing that was needed was another ancient Chinese technique -- printing. This travelled first to the Arab World and then, in 1436, to Europe. Book production has been growing ever since, and millions of new books are now published every year.

Bespite these very large numbers, books can only contain a small amount of today's flood of new information. Instead, tiny microchips with huge memories have become our main way of storing it all. Welcome to the 'information Age'l

Find differences between the following and sentences in the text.

- After it had begun as pictures, or pictograms, it gradually changed into a system of symbols called cuneiform.
- While it looked like cuneiform, h actually consisted of just 30 letters.
- 3 After they had developed their own 22-letter system ..., they carried it with them when they traded around the Mediterranean.

Change these sentences in the same way.

- Before they started to farm, people had mainly hunted wild animals.
- While they continued to be hunters, they moved from place to place to follow the animals.
- 3 When they were learning to farm, they gradually moved round less.
- While they were developing good food crops, they also began to keep phimais for their meat.

cuneiform, it actually consisted of just 30 letters.

- 25 The modern Arabic, Hobrew and Roman alphabets all come from that one ancient script. The Roman system developed the Phoenicians, who lived in the area of modern Lebanon. After developing their own 22-letter system from the
- 30 Ugarit alphabat, they carried it with them when tracing around the Mediterranean. This led to Greek and other alphabets and finally to the Roman script that western European languages now use.
- 35 Many kinds of information were scon being written down in various scripts. Then Ptolemy 1, King of Egypt from 323-235BC, started collecting many of these documents in his famous new Library of Alexandria. Its 700,000 papyrus scropts
- 40 brought together most of human knowledge in one place, this great collection was only possible because of one thing - the invention of writing

From papyrus to paper to microchips

45 After starting to write, people needed something cheeper and lighter to write on. Various

🕝 Say what you think.

Experts believe that you can tell a lot about people by the way they write in Roman script. For example, letters leaning backwards are said to show that the writer is not very confident, and letters leaning forward show the opposite.

Language: after/before/when/while + -ing participles C: Gammar reference p135

Sma)

Contraction of the

Time clauses can change to participle clauses like this.

- While I was looking for information for my project, I found this useful website.
 While looking for information for my project, I found this useful website.
- 2 After I had found the website, I opened it and printed out the whole thing. After finding the website, I opened it and printed out the whole thing.

Appendix E

List of referential questions

- 1. How old are you?
- 2. How many brothers and sisters do you have?
- 3. Do you like living in Se'ir?
- 4. Don't you prefer to go else where?
- 5. Do you like summer or winter?
- 6.. How many rooms does your house consist of?
- 7. How do you feel about the subjects of this year?
- 8. Where do you live?
- 9. Who wants to study in the university?
- 10. Do you wish to visit the Bermuda Triangle?
- 11. Your sports' boots aren't in their place. Your brother has a match today. but he
- claims that he didn't take it. What do you think?
- .12. What is your favourite season?
- 13. Why does the text end like this?
- 14. Who do you encourage more, Zedan or Ronaldino?
- 15. What is your favourite place to go?
- .16. What is your father's job?
- 17. In your opinion, where are the ten persons?
- 18. What would like to be in the future?
- 19. What is your favourite colour?
- 20. How many friends do you have?
- 21. What is you favourite kind of sport?
- 22. Who is your admired footballer?
- 23. What is your mother's job?
- 24. Do you like hot drinks?
- 25. How many of you want to study English?
- 26. What is your favourite TV show?
- 27. Who do you admire more, Bush or Obama?
- 28. What is your favourite meal?
- 29. Is the movie American or European?
- 30. What is your father's job?
- 31. Who is closer o you, your dad or mum?
- 32. Do you feel happy because you're going in a trip?

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