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# Wait-time in Material and Classroom Context Modes\*

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#### Abstract

This study aims to investigate wait-time, more specifically student reaction wait-time, in high school English as a foreign language classrooms with specific regard to two classroom micro-context modes (the classroom context mode and material mode). The data was collected via audio-recordings of classroom interaction in its natural context. The audio-recordings were analyzed using the principles of Conversation Analysis. The analysis of the data demonstrated that the effectiveness of student reaction wait-time is highly related to the current pedagogical goal; if the purpose is to increase learners' involvement in classroom discourse or if it requires analytical thinking, an extended wait-time of three to five seconds is likely to enhance the learning opportunity. However, as a social process, opportunities for learning are likely to be missed if the purpose is to monitor understanding or display answers which are explicitly given in the material that is being used. In this sense, this study has implications for studies on wait-time, foreign language classroom interaction, teachers' interactional competence, and foreign language learning contexts in general.

Key words: Wait-time, Conversation Analysis, classrooms modes, interactional resources.

#### Introduction

To facilitate the L2 learning process, it is essential for teachers to enrich their knowledge regarding how it is learnt. The role of teachers in classrooms is critical to the learning process, as they can construct or obstruct learning potential through their actions. Allwright (1984) and Walsh (2002) argued that learning opportunity is highly determined by teachers' language use in the classroom. To develop teachers' talk to create effective classroom interaction which leads to learning, Walsh (2006) coined the term classroom interactional competence (CIC). CIC is defined as "teachers' and learners' ability to use interaction as a tool for mediating and assisting learning" (Walsh, 2006, 132). CIC is based on the premise that language learning is mediated and occurs through interaction. Ellis (2000, 209) argued that "learning arises not through interaction, but in interaction". Then, it can be argued that teachers should improve their CIC to create as many learning opportunities as possible as it helps teachers gain a better understanding of classroom interaction.

Walsh (2011) classified classroom context into four micro-contexts called modes: the classroom context mode, managerial mode, skill and system mode, and material mode, and then, illustrated the appropriate pedagogical goals and the most suitable interactional features (interactures) for each mode. Walsh's work can broaden teachers' knowledge of classroom interaction, enabling them to improve their reactions to language choices in each mode which has its own characteristics.

This research focuses on the interactional feature of wait-time and, more specifically, student reaction wait-time, which refers to the pauses that are preceded by teacher talk and followed by student talk. The term wait-time, coined by Rowe (1986), refers to the pauses that separate teachers' and students' turns. To elaborate and contribute to the studies on wait-time and CIC, this research aims to investigate wait-time in foreign language

<sup>\*</sup> This study is partially based on the dissertation entitled *Wait-time and Learning Opportunity: A Critical Study* of Saudi English Language Classes by Alsaadi (2015) which was submitted to the University of Newcastle upon Tyne, the United Kingdom.

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classes. The main objectives are to examine whether wait-time is (i) applied in Saudi English classes and (ii) if it enhances opportunities for learning. Audio-recordings from two Saudi English classrooms were collected and analyzed based on the principles of CA, which is "the study of recorded, naturally occurring talk-in-interaction" (Hutchby & Wooffitt, 1998, 14). According to Kasper, "CA has the capacity to examine in detail how opportunities for L2 learning arise in interactional activities" (2006, 83).

Wait-time in Saudi English classes is worthy of investigation for several reasons. First, wait-time is not widely researched; it was initially researched in the 1970s and 1980s, but it has only started to be studied after the rise of the Conversation Analytic framework (e.g. Maroni, 2011). Secondly, the majority of studies conducted on wait-time were based on subjects other than language learning. The only complete studies which examined wait-time in L2 classes are Yaqubi and Rokni (2012), Walsh (2006), and Walsh and Li (2013) who examined the effectiveness of wait-time in second language (L2) classrooms. Moreover, this study, unlike most previous research, is qualitative; the researchers utilized an emic perspective of classroom talk in interaction thanks to the use of CAAccordingly, this research will enrich and fill a gap in the literature. However, it would be impossible to investigate students' reaction wait-time in all classroom micro-contexts in the scope of this study; therefore, it focuses on two micro-contexts, in keeping with Walsh (2006): the classroom context mode and material mode.

#### Wait-time and its Relevance to L2 classrooms

In her attempt to increase learning opportunities and improve the interactional pattern of most classroom discourse, Rowe (1974a, 1978) studied the nature of elementary science classes over a six-year period to ascertain the core reason for such predictable classroom interaction (teacher initiation (I), student response (R), teacher feedback (F)). After analyzing 300 tape recordings, she found that the majority of the classes shared a similar characteristic: their pace was mostly very rapid, with only short pauses of less than three seconds after the teacher's question and the student's response. For empirical studies, she coined the term 'wait-time', which refers to the pause separating two speakers. Rowe and other researchers, such as Tobin (1980) and Beyerbach (1988a), highlighted the effectiveness of wait-time in student and teacher behavior and in the nature of classroom interaction.

Wait-time refers to the pauses between speakers' utterances. Claiming that Rowe's definitions of wait-time needed to be redefined, Lake (1973) categorized them in terms of the person who controls the duration of the pause. He also classified wait-time into two types: (i) student wait-time and (ii) teacher wait-time. Lake's (1973) conceptualization was supported and developed by Fowler (1975), who divided wait-time into four types: (i) teacher reaction wait-time, (ii) student reaction wait-time, (iii) teacher-initiated wait-time, and (iv) student-initiated wait-time.

Rowe's, Lake's, and Fowler's definitions of wait-time are presented diagrammatically in Figure 1 below, which is taken from Tobin and Capie (1983).

	Rowe's defitions of v	vait-time	
Wait-time I:	Teacher question	pause	Teacher or student talk
Wait-time II:	Student response	pause	Teacher comment or question
	Lake's defitions of w	ait-time	
Teacher wait-time:			
Example 1:	Student talk	pause	Teacher talk
Example 2:	Teacher talk	pause	Teacher talk
Student wait-time			
Example 1:	Teacher talk	pause	Student talk
Example 2:	Student talk	pause	Student talk
	Fowler's defitions of	wait-time	
Teacher reaction wait-	time		
Example:	Student talk	pause	Teacher talk
Student reaction wait-t	ime	-	
Example:	Teacher talk	pause	Student talk
Teacher-initiated wait-	time	•	
Example:	Student talk	pause	Student talk
Student-initiated wait-t	ime		
Example:	Teacher talk	pause	Teacher talk

Figure 1: Definitions of Wait-time

In a wait-time study, after close analysis of several hundred science classes, Rowe (1974a, 1974b) noticed that the nature of classroom interaction is likely to develop if the duration of the pause following a question is three seconds or longer. Therefore, based on her research, three seconds is considered as an extended wait-time. She suggested that the primary reason for pausing for at least three seconds is to permit a minimum but adequate amount of time for students to think of possible answers. Rowe's findings are also supported by some other studies (Tobin, 1980; Swift & Gooding, 1983).

Rowe (1986) illustrated that the majority of classes do not have extended wait-time. Typically, they react after a one-second pause if the question has not been answered, and this reduces learners' involvement. Swift and Gooding (1983) conducted a study on a group of 40 teachers, and the results were similar to Rowe's finding. Several factors influence teachers' avoidance of wait-time implementation in the classroom. According to Beyerbach (1988b) and White and Lightbown (1984), among teachers' most shared reasons for not implementing extended wait-time is time pressure. Most teachers argue that pauses are considerably time-consuming; consequently, the pace of classroom discourse is likely to slow down. As a result, it is difficult to cover the entire curriculum in the given period. Another possible reason for this avoidance is that extended pauses might create an uncomfortable environment for teachers and students. Lack of training can easily create a stressful environment for teachers (Honea, 1982). Tsui (1996) noted that silence in the classroom may increase students' anxiety, especially if they do not know the answers to the teachers' questions. In a similar study, White and Lightbown's study (1984) indicated that teachers are hesitant to give extended wait-time, as this negatively affects students' participation and can cause boredom among students.

In traditional classes, it is believed that teachers should control most classroom discourse. Extended wait-time implementation can create a balance between the teacher's and students' talk (this will be discussed in more detail later). This is supported by Ellis (1993), who claims that many teachers rely on display questions (for which there is only one possible correct answer) to avoid a slow-paced lesson and to maintain control of the classroom. Referential questions, for which there are various correct responses, are typically avoided because they can lead to learner-centered discussion.

It was discovered in 1975 by Sinclair and Coulthard that there are shared characteristics among virtually all forms of classroom interaction. After analyzing hundreds of lessons, they observed that classroom interaction adheres to specific interactional patterns (IRF) which are tightly controlled by the teacher. The 'I' stands for 'initiation', which is a move that is typically performed by the teacher. The teacher's initiation requires a reaction from the students, who always react in the form of a 'response' (R) move. In the 'feedback' (F) move, the teacher usually reflects on the student's response in the form of feedback by shaping the response, requesting clarification or elaboration, or providing an acknowledgement. According to Cazden (2001) and Wells (1999), the IRF exchange accounts for 70% of classroom interaction. Although the IRF pattern is underestimated by some researchers, (Wood, 1992; Nystrand, 1997; Van Lier, 2000; Clifton, 2006), others highlight its advantages in classroom language learning (Mercer, 1992; Hall, 1998; Wells, 1999; Nasaaji & Wells, 2000). According to Wells (1999, 169), the "triadic dialogue is neither good nor bad". The three-part exchange can either create or hinder learning potential according to teachers' language use and the purpose for which it is used.

According to Fowler (1975), Winterton (1977), Honea (1982), Knickerbocker (1984) and Walsh (2006), waittime is an effective technique for reducing the predictable pattern of classroom interaction (IRF) and creating successful interaction. Wait-time implementation helps teachers to develop collaborative learning, in which learners are encouraged to actively participate in classroom discussion (Waring, 2009). Alexander (2004) extended the influence of wait-time to teaching, arguing that wait-time can lead to dialogic teaching, which, in turn, cannot be practiced unless students are given sufficient time. He argued that if students are provided with sufficient pauses, classroom talk is likely to be reciprocal in that teachers and students will listen and support each other, namely in regard to constructing meaning. This gives way to space for interaction and thus learning, which is likely to improve L2 learning (Atar & Seedhouse, 2018; Walsh, 2011).

#### Effects of Wait-time on Teachers' Actions

Previous research that investigated wait-time and teachers' behavior found that the increase in wait-time is accompanied by several desirable changes that encourage learners to participate in discussion. Wait-time implementation is believed to help teachers to effectively manage classroom discourse to increase learners' involvement in discussion. Teachers use a number of techniques, such as fewer student interruptions and redirecting questions to other students if they are not answered. In an early study, Fowler (1975), Tobin (1986)

and Walsh (2006) reported that students are more likely to take extended turns without being interrupted if they are provided sufficient periods of silence. With regard to redirecting questions, Barnette et al. (1995) found that teachers who give extended wait-time are likely to offer opportunities for the whole class to provide responses through repeating and redirecting the questions to other students or the whole class.

Another effective technique resulting from wait-time implementation is modification in questioning. A sizeable body of research has investigated the relationship between wait-time and teachers' questioning style. In a typical classroom, teachers tend to ask display questions, if wait-time is less than three seconds (Swift & Gooding, 1983; DeTure & Miller, 1985; Barnette et al., 1995). Rice (1977), Fagan et al. (1981), and Tobin (1986) illustrated that teachers are more likely to ask more high-level cognitive questions if extended wait-time is implemented. According to Swift and Gooding (1983), there is more frequent use of evaluative questions after extended wait-time. Teacher probing, such as clarification requests and elaboration questions, is also expected to be used after a pause of two-three seconds or more (Atar, 2016; Atar & Seedhouse, 2018; Barnette, 1995). Such a considerable development in questioning technique is likely to increase student talk and, in turn, decrease teacher talk (Tobin, 1980; Gooding et al., 1983; Swift & Gooding, 1983; Tobin, 1986).

## The Effects of Wait-time on Students' Actions

A close examination of the relevant literature reveals that wait-time practice has a positive impact on student behavior which can be summarized as follows: (i) a significant change in the traditional role of students as passive learners, (ii) students' development of reflective thinking, and (iii) an improvement in student psychology, i.e. confidence and anxiety.

Unlike interaction in the teacher-led classroom, learners are less restricted regarding their moves in the classroom when wait-time is implemented. The predictable pattern of interaction (IRF) is likely to change, as students who are given extended wait-time are more likely to voluntarily participate in the discourse even if the teacher does not elicit responses (Rowe, 1986; Swift & Gooding, 1983). There are opportunities for students to hold the floor and be self-selected, unlike in the case of triadic dialogues, in which teachers mostly allocate turns to students. When students take turns after having extended thinking time in which to process the question, think of possible answers, and formulate their responses, they have greater opportunities to have extended turns. This is supported by several studies (Swift & Gooding, 1983; Tobin & Capie, 1983; Gooding et al., 1985; Rowe, 1986; Stahl, 1994; Tsui, 1996; Cullen, 1998; Walsh, 2002; Walsh, 2006). The most common sequence of classroom discourse pattern (IRF) is likely to be developed as students can perform different moves in classroom discourse (Rowe, 1986); they may not only have the opportunity to perform the 'R' move but can also initiate a turn. Therefore, the repeated structure of classroom discourse is likely to change due to the various moves by the students.

A study conducted by Atwood (1991) in science education concluded that increased wait-time can stimulate reflective thinking and can, therefore, lead to greater student involvement. During a pause of a few seconds, there is an opportunity for students to undertake some sort of critical analysis before providing an answer. Consequently, the number of unanswered questions is likely to decrease. Such reflective thinking has a significant impact on students' participation. Nunan (1991), Swain (1995), and Walsh (2002) proposed that the quality of students' contribution tends to be higher when using extended wait-time. Interestingly, previous researchers have noticed an improvement in not only the quality but also the quantity of responses. For instance, Nunan (1991), Stahl (1994), Barnette et al. (1995) and Walsh (2002) observed that the extent of students' contribution is a variable that is affected by the amount of wait-time.

Extended wait-time is believed to be an essential factor that has a direct effect on students' confidence. According to Rowe (1986), there is a relationship between wait-time and confidence. Once planning time is provided before soliciting a response, learners' willingness to communicate is likely to increase due to an increase in their confidence and self-esteem (Zarrinabadi, 2014). There is usually a correlation between confidence and anxiety; therefore, anxiety in the classroom is likely to decrease thanks to an increase in students' confidence. Mark (2011) stated that the more extended wait-time is offered in classrooms, the less anxious the students will be and vice versa. These findings are contradicted by Tsui (1996), who argued that pauses in the classroom could result in increased student anxiety. Mark's finding is supported by other researchers, who have argued that wait-time implementation leads to an increase in student participation. Students' participation is unlikely to increase if they are anxious. However, there can be some degree of balance between the two findings; extended pauses may increase students' anxiety if they serve no function, as in display questions. The reverse is true, as students need private thinking time after referential questions.

#### **Extended wait-time and Classroom Modes**

Extended wait-time does not necessarily create an interactional space for learning, as the creation of successful interaction is context specific. Teachers are highly involved in moment by moment decision-making, whether to implement extended wait-time or to align with pedagogical purpose considering language use (Bailey, 1996). Walsh (2011) proposed that the classroom context comprises a series of micro-contexts, each of which usually has a specific pedagogical goal which is accomplished by certain language use. Walsh (2006) classified context mode), each of which has its own distinctive features. Using the words of Walsh (2006, 65), "each L2 classroom mode has its own distinctive fingerprint, comprising pedagogic and linguistic features". A brief description of the material mode and the classroom context mode and their relationship to wait-time is presented below (for further information on classroom modes, please see Walsh, 2011).

The main purpose of the material mode is to provide students with an opportunity to practice language related to specific material. Students are, therefore, afforded little interactional space in terms of topic management and turn taking. As topic management is entirely determined by the activity at hand, the space for interaction may vary: "learners may be afforded more or less interactional space according to the type of activity" (Walsh, 2006, 70). In terms of wait-time in the material mode, wait-time varies according to the level of question. For instance, if the pedagogical goal is to display answers which are clearly stated in the material, extended pauses are not necessary because students are urged to recall an information in the material. Conversely, wait-time is not as limited if the goal is to involve learners in a reflective or analytical thinking.

The classroom context mode, on the other hand, pays little attention to form, as the main pedagogical goal is to promote fluency. Similar to 'meaning and fluency micro-context', which is a micro-context identified by Seedhouse (2004), the teacher's aim is to maximize interaction in classroom discourse by giving learners more interactional space. To accomplish this aim, teachers usually ask referential questions, which is one interacture of this mode (Walsh 2006), to provide as many students as possible with an opportunity to participate and take extended turns. Before taking extended turns, extended wait-time should be required for students to respond appropriately to higher-level cognitive questions (Tobin, 1983). Tobin and Capie (1983) highlighted the influence of wait-time after high-level cognitive questions regarding students' involvement; the more extended and uninterrupted the period of silence that is afforded to students after high-level cognitive questions, such as referential questions, the more students' participation in classroom discourse is likely to increase. To enable learners to take extended turns and express themselves clearly, clarification requests are critical in the classroom context mode (Atar & Seedhouse, 2018). Therefore, turn taking and topic management are less tightly structured due to the pedagogical goal. Participants are likely to initiate discussion without being nominated by the teacher due to referential questions and wait-time.

#### Methodology

#### **Research Questions**

The aim of this study is to examine the use of wait-time in Saudi English language classes in two modes (material mode and classroom context mode). The research question is:

What are the effects of extended wait-time on learning opportunities with regard to the two modes (material mode and classroom context mode)?

This research aims to enable a deeper understanding of the English Saudi classroom discourse; therefore, the qualitative approach was deemed to be more suitable as it is suitable for investigating meaning, perception, attitude, and understandings through observation and case studies (Burnett, 2009).

#### **Data Collection and Data Analysis**

The goal of this study is to present the characteristics of an action (wait time) in its naturalistic environment. Accordingly, CA was chosen for data analysis as its primary focus is on non-experimental naturally occurring data without considering character and setting (Ten Have, 2007).

The participant teachers work at a high school as non-native English language teachers and have a low level of teaching experience. Regarding classroom context, the two classes each had 15 female students. The level of proficiency of most students was quite low (CEFR A1 – A2) especially in regard to speaking (Due to the word limit, this part was kept short. Please see Alsaadi, 2015 for more details on the sample).

The data for this study was obtained from classroom audio-recordings. The method used to collect the data was carefully chosen to meet the study's aim. Each volunteer teacher was asked to make four 45-minute audio recordings of her lessons over a maximum of one month. The period given to the teachers to record the four lessons is quite long owing to the aim to create a comfortable situation and to reduce the observer's paradox for the teachers and students. According to Dale and Vinson (2013), "the observer's paradox is the notion that intervention or measurement by an observer can directly impact (or coordinate with) the behavior of the system being studied". Having established a collection on wait-time instances, two, out of eight, lessons were actively analyzed and used in this study.

The recordings were analyzed adopting a Conversation Analytic approach. CA is a naturalistic approach whose primary aim is to observe, describe, analyses and understand talk as a basic component of human social behavior (Sidnell, 2010). Therefore, transcribing the classroom audio-recordings was essential to document various repeated actions in the interaction. The transcription conventions derived from the work of Atkinson and Heritage (1984) (see appendix A) were used.

# **Analysis and Findings**

The following extracts from the data are selected and analyzed to illustrate whether (i) extended wait-time is applied in Saudi English classes and (ii) whether the use of extended wait-time in the classroom context and material modes construct or obstruct learning opportunities in classroom interaction.

# **Classroom Context Mode**

The extracts below are taken from the classroom context mode. In Extract 1, the task goal was to elicit student responses. The following discussion was about the worst movie students had ever seen.

#### Extract 1

1	T:	what is the $\uparrow$ worst (.) tv film (.) you have ever seen (.) the worst
2		one السور الم تسققور (( <u>the worst</u> film you have ever seen))
3	LL:	umm
4		3.6
5	LL:	(unclear voice)
6	L:	(barbie) in: the school=
7	T:	= yeah (.) >are you gonna look[ a- <
8	L:	$^{\circ}$ [end of the world $^{\circ}$
9	T:	umm (.) $\downarrow$ end of the $\uparrow$ world umm [°yeah°
10	L:	$\uparrow$ [i don't think so?
11	T:	yeah (0.9)

The teacher in this extract asks the entire class a referential question: 'What is the worst TV film you have ever seen?' This is done using a natural pace and a clear tone, after which she repeats the key phrase--- 'the worst one'-using an emphatic tone. For further clarification, a code-switching is utilized into the students' mother tongue. After an extended pause (3.6 seconds) in line 4, various students take the floor and provide an answer, which results in an overlap among the learners and, eventually, an unclear voice in line 5. Through rising her intonation, a student manages to hold the floor and provides the name of a movie that she does not like (line 6). The teacher acknowledges the student's response with 'yeah'. Then, another learner self-selects and overlaps with the teacher and calls out a movie titled 'End of the World', which is then echoed by the teacher. Due to the teacher's hesitation in line 9 ('umm'), it seems that it is difficult for her to agree with the student, although she eventually says "veah". The teacher takes a neutral position by softly uttering "veah". Another participant initiates a discussion in line 10 to challenge the previous classmate's response. The student's contribution 'I do not think so' overlaps with the teacher's turn and is relatively short and she does not elaborate on her response. nor is she asked by the teacher to do so. The latter merely confirms the student's answer by saying 'yeah'. The discourse from lines 6 to 10 is incredibly fast due to overlaps and latches, giving the students no opportunity to elaborate on their responses. The teacher simply acknowledges each response given by the learners, which also may have had a negative impact on their ability to elaborate on their contribution. Using other resources such as type specific questions or other-initiated repairs (Atar & Seedhouse, 2018) and allocating longer wait-times could have led to more elaboration.

In this extract, the use of extended pauses seems to contribute to the increase in participation as it is aligned with pedagogical purpose. To maximize learners' involvement, the teacher asks a referential question and then gives sufficient wait-time, which the students take advantage of due to the positive changes occurring in the classroom interaction. Wait-time practice is an effective teaching technique, as it increases the number of responses as seen by the self-initiated turns and overlaps (lines 8 and 10). Therefore, IRF exchange is reduced via an increase in learners' contributions.

Extract 2 below also demonstrates wait-time in classroom context mode. In this context, the teacher organizes a discussion to get students to talk about someone who live and study/work in two different cities.

#### Extract 2

1	T:	but its $\uparrow$ so cold in the winter (.), ok ameenah? (0.5)
2	L1:	my ↑ brother .hh=
3	T:	=yeah=
4	L1:	=he lives in::: makkah (.) but no- origin- $\uparrow$ now he is in umm
5		MALAYSIA (0.3) work and study
6	T:	ok so he works and studies >in malaysia< (.) wha- what about
7		$i\uparrow$ now $i$ need to $% i$ how about this (.) ,beca:::use .hh $\uparrow we$
8		usually hear about people lives studies in america what
9		abou- what about it (.) does he LIKE IT (0.4) yes a meenah?
10	L1:	<sup>0</sup> yes he like it <sup>0</sup> =

11	<b>T</b> :	so he <u>l</u> <u>likes</u> it there
12	L1:	ymes
13	T:	HOW is the weather:::? (.) HOW is the people (0.6)?
14	L1:	.hh umm the people is::: lovely friendly [umm]
15	T:	>î[ok] an- the <u>weather</u> <
16	L:	the weather is.: [nice] .hh
17	T:	↑ [they say]
18	L1:	↑ [always] rain_always

We enter the discussion when the teacher nominates Ameenah to respond to her question after reflecting on the previous contribution. After a mini pause (0.5 seconds), Ameenah begins her contribution with 'my  $\uparrow$  brother .hh='; when she takes a breath (.hh), this indicates that she has not yet finished her response. The teacher, however, speaks immediately, taking a short turn ('yeah'). The teacher may not be claiming for a turn but rather showing active listenership and encouraging Ameenah to complete her turn. According to Van Lier (1988), minimal post expansions such as 'yeah' and 'uh-huh' serve several functions, including showing involvement and understanding of the discourse, and maintaining the flow of the interaction. Ameenah latches with the teacher and takes a long turn in line 4. She has difficulty formulating her response, as she cuts off two words in the middle of her response ('no-' and 'origin'), and produces a grammatically correct sentence. The teacher accepts Ameenah's contribution ('ok') and indirectly corrects the mistakes: 'works' and 'studies'.

It is unusual for the teacher to hear about a Saudi student who works and studies in Malaysia; therefore, she requests additional information. She asks Ameenah about her brother's opinion, whether or not he likes living there. 'LIKE IT' is uttered loudly to differentiate the teacher's question from other teacher talk, as the teacher takes a long turn to explain why she needs elaboration before asking the question 'does he LIKE IT?'. The student's response '<sup>0</sup>yes he like it<sup>0</sup>=', which is quietly articulated, is echoed and an embedded repair is done by the teacher. In line 13, Ameenah is asked to elaborate on the weather and the people in Malaysia; however, she is not given sufficient time to answer both questions, as the teacher keeps interrupting her (lines 15 and 17). The sound '[umm]' at the end of Ameenah's response (line 14) indicates that she wants to keep holding the floor, but she is overlapped by the teacher and asked about the weather. Similarly, in line 16, when the student wants to elaborate on the weather, as indicated by (.hh), she is again interrupted by the teacher. The student, however, overlaps with the teacher in line 18 and re-holds the floor by raising her intonation to complete her turn.

Although the teacher's questions in lines 1, 9, 13, and 15 aim to maximize the learner's contribution, it is clear from the teacher's language use, such as nomination and quick talk, that she is unwilling to give an extended pause. This has a negative impact on the learning opportunity, as the language use does not coincide with the pedagogical aim. The pedagogical goal in the classroom mode should have been to focus on more interaction and fluency.

## **Material Mode**

The following discussion, Extract 3, is led by the teacher who asks various questions related to an audio-clip.

#### Extract 3

13	<b>T</b> :	$\uparrow ok~i$ will play the audio no- now (2.7) sorry (3.2) ok $\uparrow listen$
14		play the audio (takes a minute and 12 seconds)=
15	T:	=ok (girls) <this conver<math="">\uparrowsation:: between who::: (.) and</this>
16		↓who> (0.9)
17	LL:	↑ ADEL AND FAHAD=
18	T:	= a dela and f ahad (.) excellent (.) a:::nd umm $\uparrow$ what did
19		a del ↓like about the game?
20		(2.7)
21	T:	w hat dide- (1) what did he <u>like</u> about the game?
22		(3.5)
23	L:	°(the whole [idea)°
24	T:	[what? =
25	L:	= †the <u>whole</u> idea
26	<b>T</b> :	the $\uparrow$ whole idea? (.) he $\uparrow$ like $\downarrow$ it (.)
27	L:	°uh hum°
28	T:	umm:: (2) he said that umm he thought it is an exciting game
29		↑may be =

In this extract, the interactional organization is tightly managed by the teacher, who always reflects on the students' contributions. To introduce a new activity, she uses the transitional marker 'ok' with a rise in intonation '\' to announce the end of one lesson stage and the beginning of another. After playing the audioclip, the teacher immediately takes the floor and initiates a question that relates to the material. The whole discourse is entirely determined by the audio-clip. The teacher's question in line 15 is uttered slowly with some stretching words and is directed to the whole class. After a mini pause (0.9 seconds), a group of students, in line 16, provides a response simultaneously in a loud voice; this is immediately echoed by the teacher to signal her approval of the students' response: '=Adela and Fahad (.)'. Then, she provides positive feedback 'excellent' to encourage the students. Another display question is introduced in line 17. When the question is not answered after more than 2 seconds, the teacher repeats it, emphasizing the most important word, 'like'. An unidentified learner takes the floor after a pause of 3.5 seconds. The teacher overlaps the student's contribution and asks for repetition, as identified in line 24 because the student's response is uttered quietly and softly: "(the whole [idea)<sup>0</sup>. For the sake of clarity, the student repeats her answer in a considerably louder voice, which is then echoed by the teacher. Apparently, the purpose of this echo is to get a confirmation from the student, as it is said with a rising intonation: 'the \whole idea?'. There is some hesitation, indicated by 'umm:::', for the teacher to fully accept the student's response. In the two seconds of silence (line 27) the teacher herself expands the student's contribution and explains why Adel likes the whole idea of the game rather than asking the learner for further clarification, which could create another learning opportunity.

The teacher demonstrates CIC in this part of the lesson. Her language use creates a space for learning because it is suitable for the pedagogical goal. The teacher refrains from speaking, in line 21, for 3.5 seconds after asking an analytical question because the answer is not clearly stated in the material. The students, therefore, need to think logically to arrive at the answer. The students, more specifically, the one in line 23 who answered the question, take advantage of extended pauses in answering such a high-level cognitive question. It is possible that the students would have missed a learning opportunity if wait-time had not been afforded. Wait-time, therefore, played a significant role in minimizing the number of high- cognitive questions that were not answered in this context.

Extract 4 also presents an example of the case. In this extract, the class is divided into two groups to answer a number of questions after reading a passage for about 10 minutes. This short episode is the continuation of the teacher's interaction with the learners regarding a reading passage they have just read. The teacher is giving feedback ('excellent') on the previous student's contribution.

#### Extract 4

120	T:	villa in <u>bahrain?</u> (.) excellent (1) طيب ((ok)) .hh what ↑ki∷nd of life
121		((is)) wife ((is)) هي STYLE <does <u="">his partner ha::ve&gt; هذا ((here)) his partner ((is)) wife</does>
122		HIS WIFE طبب (ok) what- what (.) life style
123		(2.8)
124	T:	ok (1.5) $\uparrow$ does she like it i:::n $\downarrow$ the bahrain (1.4) $\uparrow$ does she like it?
125		(2.5)
126	L:	((teacher (.) here is a question)) =
127 128	T:	= >yeah yeah yeah < sorry (.) sorry (2) so .hh hh she travels a lot (1) ( $j \in j \in j$ ) ((like like whom)) (0.8) like john (0.4) ok yeah .hh umm
129		yeah (.) .hh ok ↑what about here (1.8) DOES his wife ↑like it in
130		↓bahrain
131		(4)
132	L:	°no°
132	T:	YES! she likes it

After echoing the response 'villa in <u>Bahrain?</u> (.)', the discourse marker 'ok' is used to acknowledge the turn and initiate a new topic, which is a new question in lines 120 and 121. The second part of the question '<does <u>his</u> <u>partner</u> ha::ve>' is produced with great emphasis on purpose, which is then immediately followed by an elaboration of '<u>his partner</u>'. His partner and his wife are both emphasized to indicate that a relationship exists between them, and they have similar meanings in the passage. Before repeating the question in line 122, another discourse marker 'ok' is used to differentiate between the question and the other teacher elaboration. There is 2.8 seconds of silence (line 123). When the question is not answered after the pause, the teacher initiates another question in line 124. The same question is repeated after a pause of 1.4 seconds. In line 125, the teacher pauses for 2.5 seconds. The silence is then broken by a student in line 126 to draw the teacher's attention to a skipped question ('teacher (.) here is a question'). The teacher latches with the student for the sake of confirmation ('>yeah yeah <'), which is uttered quickly. After a two-second pause, the teacher answers the question and uses a discourse marker ('ok') to signal the end of this question. The same question that is being asked in line 124 is repeated in line 129, as it is not yet answered. The word 'DOES' is produced considerably more loudly

than the remaining part of the question. After four-second pause, the teacher provides a loud response with great emphasis ('<u>YES!'</u>). For further clarification, a complete answer is provided by the teacher ('she likes it').

The teacher attempts to get the students to respond to her question by giving them sufficient time to think of the answer. The students however fail to provide any response as the language use and pedagogical purpose are not aligned. In display questions, students need to recall a specific piece of information. As a result, if they do not know the answer, providing extended wait-time does not work. Therefore, it could be suggested that wait-time may not always be effective or contribute to language learning especially if it does not align with the pedagogical objective.

#### Discussion

Most previous research and the current study have found evidence in favor of wait-time in classroom interaction, as well as students' and teachers' behavior in the classroom. However, unlike most previous studies, which have made no attempt to address the usefulness of wait-time in a specific context, this study provides evidence from classroom interactions in cases in which pauses would be more effective. Then, this study has contributed to the field by focusing on the variables (micro contexts) that may have an effect on the usefulness and appropriacy of wait-time.

#### Wait-time implementation: Is it always beneficial?

The study findings indicate that teachers' talk is critical for opening up or closing down spaces for learning, which are conceptualized as participation in a social activity. On the one hand, learning opportunities are created when wait-time is used effectively to maximize learners' involvement in classroom discussion, as in both the classroom context mode (Extract 1) and the material mode (Extract 3). Conversely, Extract 4 illustrates that students miss learning opportunities even when wait-time is given. This is because the language use in Extracts 1 and 3 is convergent with the pedagogical purpose of eliciting as many responses as possible. However, in Extract 3, there is only one correct answer, which the students could not provide. This is related to Walsh's (2006) position that language use, pedagogical goals and learning opportunities are inextricably linked; if the first two are aligned, learning is likely to increase and vice versa. Therefore, effective teaching is about good decision-making. Once teachers choose the most appropriate language use for a specific institutional aim, learning opportunities increase. Also, wait-time is a powerful instrument that can be used to change the nature of classroom interaction by reducing the number of triadic patterns (IRF), improving the quality of teacher talk, and maximizing learners' involvement, which is linked to L2 learning. This is supported by Walsh (2002), who argues that extended wait-time in the classroom is necessary to increase learning potential.

This study, unlike previous studies (Gooding et al., 1983; Rowe, 1986; Stahl, 1994) which shed light only on the importance of pauses in the classroom, reveals that wait-time, like any other interactional feature, is highly context specific and can enhance or hinder learning opportunities. Walsh (2006; 2011) mentioned pauses under modes, but the focus was on demonstrating their effectiveness in creating interactional space in classroom discourse. The only study that questioned the value of wait-time during the whole class and with all types of questions is Tobin's (1986). It focused on the relationship between pauses and cognitive-level questions, and he concluded that wait-time is beneficial in regard to high-level cognitive questions, but unsuitable for low-level cognitive questions, such as display questions. The results of Tobin's study, regardless of its cognitive conceptualization of learning, coincides with those of the current study, as illustrated in Extract 3 and 4. When using wait-time, teachers need to consider and modify their questioning strategies. They should move away from asking memory-level questions and consider higher order cognitive questions or referential questions, as students may not benefit extensively from wait-time during recitation and memorization activities (Tobin, 1986).

#### Wait-time and Teacher Talk

The analysis of the classroom data revealed that extended pauses lead to an improvement in certain features of teacher talk, making it more supportive and productive. This coincides with Rowe's (1986) finding that if teachers utilize longer wait-time, certain features of their discourse will change. The important influence of

wait-time on the characteristics of teacher talk is also recognized by several other researchers, including Fowler (1975), Rice (1977), and De Ture and Miller (1985).

One of the most significant and beneficial finding obtained from the analysis of the collected data is that the teachers acquire a better understanding of the value of students' engagement in discussion. Therefore, the teachers tend to ask questions that require in-depth thought and provide extended wait-time to coincide with the pedagogical goal and language use, as in Extract 3. Numerous studies (Swift & Gooding, 1983; De Ture & Miller, 1985; Barnette, 1995) have examined wait-time in relation to question type and found results that were similar to those of this study: that extended silence leads to fewer memorization-level questions. Due to a decrease in the number of display questions and an increase in wait-time practice, there has been a considerable increase in the number of referential questions asked by Saudi English teachers. Fagan et al. (1981) and Tobin (1986) found that extended pauses are mostly associated with genuine questions.

Another observation in the analysis has demonstrated that wait-time implementation reduces interruptions in Saudi classes, thereby helping students to have extended turns. When teachers refrain from speaking for three to five seconds, they are less likely to interrupt students who are attempting to complete their contributions (Tobin, 1986). The current study is in line with Tobin's finding, as observed in Extract 4. Therefore, the more teachers afford students uninterrupted periods of silence, the greater the students' opportunities to take extended turns and, therefore, the greater their opportunities to learn the L2.

Regardless of any modification to teachers' behavior regarding wait-time practice, it is difficult to agree with Swift and Gooding's (1983) finding that wait-time practice results in less teacher talk, and an increase in student talk. The reason for this difference in the findings is that there is no clear evidence in the recordings collected from the Saudi English classes that the teachers, to great extent, control the conversation to the students, even when sufficient thinking time is afforded. It is true, as evidenced by the extracts, that students are more willing to communicate and less likely to be interrupted; however, students' responses are usually relatively short. Therefore, they need to re-hold the floor and ask more questions, which leads to an increase in the percentage of teacher talk. The conflict between the findings of the two studies might, consequently, be related to the variations in context. Swift and Gooding's study was conducted in science classes, in which students rely on their mother tongue to communicate, while the current study was conducted in L2 classes. Due to their reliance on the L1, the students in the former study, unlike those in the latter, might have felt more comfortable taking extended turns, which, in turn, reduced teacher talk. Also, as observed in Extract 1, that context requires a type specific questions (what) and this questions can simply be responded to. Questions types such as how and why can give way to more elaboration, but as mentioned above, sometimes the pedagogic goal requires a short answer which is perfectly fine in that context as the goal is not elaborated talk. Then, it can be argued here that aiming at extended turns are not the only goal in L2 classrooms What matter is the alignment between the pedagogic goal and the interactional resources used.

## Wait-time and Learner Involvement

Considerable evidence in the previous research and this study suggests that the length of pauses has a significant impact on students' behavior during classroom discussions. Among the most striking findings of the current study that coincides with Stahl (1994) and Barnette et al. (1995) is that wait-time leads to an increase in the number of student responses. As evidenced by Extracts 1 and 3, these responses are unsolicited. This study, therefore, confirms Swift and Gooding's (1983) finding that regardless of variations in context, when it comes to extended pauses and unsolicited responses, most student responses are voluntary. This study goes a step further by investigating wait-time in different classroom contexts and reveals that wait-time may not have a positive effect on students' contribution if there is no harmony between pedagogical goals and language use, as illustrated in Extract 4. This is supported by Walsh's (2002) study, in which he investigated extended wait-time in relation to pedagogical goals, and he declared that teachers' language choice can minimize learning opportunities if it does not coincide with the pedagogical purpose.

In this study, wait-time can, however, enhance learning potential and increase the quality of students' responses if it is aligned with the pedagogical aim. As Rowe (1974b), Stahl (1994), and Walsh (2011) reported, the quality of students' talk tends to improve as they are given sufficient time to think about possible answers and formulate their responses before speaking. This study found similar results, as illustrated in Extract 3. In line 22, the student takes advantage of the extended pause and provides analytical responses. Such analytical questions might not be answered, or at least not in the way they are answered, if wait-time is not afforded. Silence is an effective way to reduce the number of unanswered questions, especially high-level cognitive questions, in the classroom. This finding was also echoed in Tobin's study (1986), which analyzed a group of science teachers.

There is a relationship between extended wait-time, quality of students' talk and students' confidence. The more students believe in the quality of their responses, the more likely they are to voluntarily participate in discussion and even show disagreement with others. This is evident in line 10 of Extract 1. The student's contribution ('[I don't think so?') has two unusual features of Saudi English classroom discourse: teacher interruption and disagreement with the teacher's opinion. This is supported by Mark's (2011) position that students have a better chance of developing their confidence when teachers pause for three seconds or more, which has a favorable effect on students' willingness to participate.

Wait-time creates a supportive environment for learners to participate in classroom discussion; however, as shown in Extract 2, the student is able to take extended turns even though very limited thinking time is given. This indicates that other internal factors, such as knowledge of the topic and students' level of proficiency, along with external ones, such as extended pauses, play a role in students' involvement in discussion. The study findings confirm Zarrinabadi's (2014) result indicating that students' willingness to communicate is likely to increase if the topic chosen by the teacher is familiar to them. The external factor that might better explain what occurred in Extract 2 is level of proficiency. It is believed that the more proficient the students are in the L2, the more likely they are to speak in the classroom (Skehan, 1989). However, it is quite likely that regardless the student's English proficiency, the quality of her responses would increase if the teacher paused for three seconds to avoid interruption.

#### Wait-time and Classroom Interaction

The role of wait-time in creating an interactional space for learning is debated. This investigation of wait-time in different classroom modes could achieve a balance between the two arguments regarding the effectiveness of silence in the classroom. Wait-time is neither good nor bad; rather, it is highly context specific. Pauses can reduce the number of IRF exchanges in the classroom if wait-time is mode convergent. As in Extract 1, the pauses after asking referential questions lead to an increase in the number of students' responses and, in turn, a decrease in the number of IRF, which supports most previous research (e.g. White & Lightbown, 1984; Rowe, 1986; Walsh, 2006). Conversely, extended thinking time may not signal an improvement in the triadic pattern, in keeping with Anshutz's (1975) and Van Lier's (1988) stance, if there is a mismatch between institutional aims and the use of language as illustrated in Extract 4.

From the audio-recordings, it is difficult to decide whether or not wait-time practice leads to dialogic teaching, as proposed by Alexander (2004). Based on the findings, it could be argued that extended pauses can lead to dialogic teaching, as some features of dialogic teaching are evident in the data such as asking questions that provoke thoughtful responses. However, an essential principle of dialogic teaching, which is reciprocal, is missing in Saudi classroom talk: the teachers and students are not involved in talk to achieve mutual understanding. The students' responses are relatively short and do not include explanations, and then the teachers provide positive or non-evaluative feedback and do not request further clarification. Therefore, wait-time can, to some extent, lead to dialogic teaching, but teachers need to modify their questioning and feedback technique to enhance classroom dialogue. This, as discussed above, should be dependent upon the pedagogic goal and also the moment by moment construction of mutual understanding.

#### Conclusion

The present study explored students' reaction wait-time in the Saudi context. As classroom interaction is highly complex, the purpose of this research was to investigate wait-time in two micro-contexts: the classroom context mode, which aims to maximize learners' involvement in classroom discourse, and the material mode, in which the primary pedagogical goal is to involve learners in discussion about specific material. To achieve this aim, sociocultural theory—and, specifically, its conceptualization about learning and participation—is paired with the methodological power of CA to illustrate how opportunities for learning or participation are constructed or obstructed in classroom interaction.

Audio-recorded data were collected from two high school English language female teachers. After transcribing and analyzing the data using the principles of CA, it became apparent that extended wait-time of three to five seconds is occasionally applied in Saudi English classes and that this, to some extent, enhances learning

opportunities. Student reaction wait-time is likely to enhance learning potential if there is harmony between pedagogical goals and language use. If teachers adjust their language use and interactures (e.g. wait-time) during talk-in-interaction to ensure alignment with moment-by-moment pedagogical goals, the learning environment is likely to improve. It is likely that wait-time creates learning opportunities if it is provided after referential questions, in the classroom context mode, or analytical questions, in the material mode. This is because these types of questions usually require students to produce original responses, and wait-time offers them opportunities to think, formulate and provide responses that are original and relatively high in quality. Students may not benefit from extended wait-time if the pedagogical goal is to display their responses, as display questions do not require extended thinking time.

As for the limitations of this study, although this study undertook an original approach and focused on microcontexts, it focused on only two of them future studies may focus on the other contexts and compare their results with the one found in this study. Another limitation of this study is that the data of this study is audio-only. Multi-modal data would provide unique and previous findings regarding wait-time. Accordingly, a multi-modal study on this topic is timely and relevant.

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# **Appendix A: Transcription Conventions**

# **Transcription Conventions**

A full discussion of CA transcription notation is available in Atkinson and Heritage (1984). Punctuation marks are used to capture characteristics of speech delivery, **not** to mark grammatical units.

1	indicates the point of overlap onset
1	indicates the point of overlap termination
=	<ul><li>a) turn continues below, at the next identical symbol</li><li>b) if inserted at the end of one speaker's turn and at the</li></ul>
×	indicates that there is no gap at all between the two turns
(3.2)	an interval between utterances (3 seconds and 2 tenths in this case)
(.)	a very short untimed pause
word	underlining indicates speaker emphasis
e:r the:::	indicates lengthening of the preceding sound
× .	a single dash indicates an abrupt cut-off
?	rising intonation, not necessarily a question
1	an animated or emphatic tone
,	a comma indicates low-rising intonation, suggesting continuation
*	a full stop (period) indicates falling (final) intonation
CAPITALS	especially loud sounds relative to surrounding talk
o e	utterances between degree signs are noticeably quieter than surrounding talk
$\uparrow \downarrow$	indicate marked shifts into higher or lower pitch in the utterance following the arrow
>< .	indicate that the talk they surround is produced more quickly than neighbouring talk
( )	a stretch of unclear or unintelligible speech.