In spite of the negative attitudes towards translation tasks in TEFL, the study reports successful outcomes for a TEFL module based on simultaneous oral translation from Arabic into English. The learners worked individually in a traditional language laboratory. Following preparatory work on an English narrative text, also conducted in the laboratory, they were required to do a simultaneous interpretation (SI) of the passage, i.e. to convey its content, in spoken English, in response to an Arabic version heard on the earphones. The results show that SI significantly improves learner performance and that it is an excellent tool for diagnosing learner competence in grammar and vocabulary. The paper examines the results, and suggests some reasons for the success of the method and possibilities for extending its use.

Teaching oral fluency to EFL students is a dilemma that many a teacher is baffled by. Bresnihan and Stoops (1996: 30) complain that

One of the most difficult challenges in teaching a foreign language abroad is finding ways to help students improve their oral fluency. This is especially true in countries where students generally share a common mother tongue and have little or no exposure to English outside the classroom.

They have found out that pair and group communication tasks, as they are structured in EFL classrooms in non-English-speaking countries, are often ineffective. They say,

When students are asked to perform these activities, they often just read aloud mechanically from their textbooks or chat in their native language. Although they may truly want to practice and express their ideas in English, it is hard for them to actually do it, and it is hard for teachers to convince them to try.

Other teachers complain about conversation in the EFL classroom. Washburn and Christianson (1996: 1) observe that

One of the challenges of teaching conversation strategies is to present learners with the authentic need to use [these strategies] in the classroom. Another is to monitor and provide feedback to learners in large classes.

Serrano-Sanchez (1996: 95) finds that

In advanced level English classes discussions are one of the most widely used oral activities. The problem arises when we have shy students who do not like talking in front of the whole class. If we want them to speak, we
have to question them directly and even then, they utter only short sentences, making it difficult to judge what their fluency or accuracy would be in longer utterances.

Nor is it always a solution to increase the amount of oral output from learners. As Smith (1995: 1) puts it,

There is often precious little conversation even when there is talk. Teachers and students usually agree that they want to have conversations in the classroom but this goal too often proves elusive.

These quotations illustrate some of the problems of oral fluency development. The communication situation is artificially created by the teacher; so students do not find a genuine need to communicate, and when there is a genuine discussion they revert to their native language because that is their normal vehicle for the exchange of ideas. Some feel too shy to carry on a fictitious conversation because they either have no ideas to communicate or they find it ridiculous to talk for the sake of talking. Worse still is that they will have to talk to their own friends in an unnatural way, in a foreign language. The solution, as I see it, is to find some natural context where there are genuine ideas to be communicated and there is a genuine need to communicate them in the foreign language. One ideal context, I have found, is the act of translating; it gives students motivation to use the foreign language and gives them ideas to communicate through it.

Below is a technique which naturally fosters the use of the foreign language for the communication of authentic ideas. It rests on simultaneous interpretation (SI) in which EFL students translate a native language discourse into English as they listen to it. Mention the word ‘translation’ in the context of EFL teaching, and you have violated a taboo. The reason is the outlawed Grammar Translation Method, but in the course of this paper I intend to demonstrate that translation can be extremely effective in the teaching of EFL. I will first discuss the merits of using translation in the EFL classroom, then I will propose a teaching technique which utilises translation, and finally I will report on an experimental study that demonstrates the effectiveness of this technique.

Translation and Interpretation

There are at least three merits of using translation to teach EFL. One is peculiar to simultaneous interpretation whilst the others are true of translation in general.

Simultaneous interpretation (SI)

Simultaneous interpretation is one type of conference translation in which the translator renders a source language (SL) discourse as they listen to it into the target language (TL) without being given the floor at any point in time. SI is useful in supplying students with ready-made native language information to communicate in their second language. In SI, information is whispered into the ear of the learner preventing them from running out of ideas when they use the second language to talk. They will not be uttering only short sentences, what Serrano-Sanchez (1996) complained about; therefore their fluency and accuracy would be greatly facilitated by simultaneous interpretation.

The fact that SI relieves the learner of the responsibility of formulating their
ideas while speaking, means that they can concentrate their mental resources on the mechanics of encoding translated ideas into the foreign language. They can allocate more attention to the retrieval of words from mental lexicons and to the grammatical formulation of sentences; they should therefore be able to produce utterances of a higher degree of linguistic accuracy. Furthermore, the exemption from formulating ideas implies by consequence exemption of planning and organising the discourse, and that in turn leads to concentrating attention on the sentence they are uttering without having to allocate much attention resources to pre-planning the next sentence. Because of the surplus attention resources that SI releases, the learner can produce significantly more fluent utterances.

**Translation**

The second merit is that L2 learners practise translation consciously and subconsciously, with the teacher’s consent and without it. If one checks students’ notebooks and textbooks, they will invariably find words and sentences written in the students’ native language. Some teachers have realised this fact and one commented,

No matter how hard [teachers] may try, adult learners simply cannot escape the influence of the first language. They will always be asking themselves, “What does _____ mean?” and decoding the answer in their first language, if not orally where all can hear, then mentally where few can fathom. (Weschler, 1997: 3)

When people grow up speaking one language, they get accustomed to thinking in terms of the conceptual world it has associated with, accustomed to their community’s theory of reality as reflected in their language. They quickly learn to interpret their new experiences in terms of elements, events, and situations in their native language’s conceptual world; i.e. their native language filters their experiences and shapes their perception of reality (see Pawley, 1991). In Grace (1987) pre-print draft (p. 163), it is asserted that

Whenever anything slightly novel needs to be expressed, it is likely to be expressed by a slightly novel use of conventional means. But this in itself modifies the system of precedents from which speakers work. If something more radically new needs to be expressed, and if the need is sufficiently persistent, a way will surely eventually be found to express it, and the conceptual world of the language will be modified accordingly. Thus, although the conceptual world as it exists at any particular moment is a strong influence upon our perceptions and our thought, it nevertheless does not confine us in unyielding restraints.

By the same token, when learners come across new experiences that their foreign language offers, they are bound to filter them through their native language, for that is the conventional and familiar way of perceiving the world. These experiences are explained in terms of learners’ familiar conceptual elements, events, and situations; then their conceptual world will eventually be modified reflecting the new experiences offered by the foreign language. For the latter to influence the conceptual world of the learners’ native language, there
must be a reasonably long transition during which they will come to terms with the foreign concepts.

Almost any abstract noun in English will never have an identical equivalent in the student’s foreign language unless the word is borrowed from it in the first place. The colour terms in English and Navaho as cited by Catford (1965) is an excellent illustration of how perception of the objective reality of colour spectrum differs across language cultures. What English refers to as ‘orange’ and ‘yellow’ is perceived by the Navaho as *lico* and what is referred to as ‘green’, ‘blue’, and ‘purple’ is seen by Navaho speakers as *dootl’iz*. Even some functional words like prepositions can pose serious problems for foreign-language learners because of divergence between the native and the foreign conceptual worlds. It is confusing for Japanese beginners, for example, to know whether a driver sits behind or in front of the steering wheel because Japanese and English have different views on the matter. Therefore, ignoring the influence of a student’s native language on learning English can only prolong the period needed for the total internalisation and subsequent adoption of its concepts.

**Conceptual basis for language learning**

The third merit is cognitive. There is evidence from psycholinguistics and cognitive psychology that L1 and L2 lexicons within the same speaker are semantically, and associationally linked (Channell, 1988). In fact, many EFL specialists, subscribe to the same view, recognising the differences between first- and second-language acquisition. Weschler (1997: 3) is convinced that

the very process of learning the mother tongue acts in hard-wiring the circuitry of the growing brain ... As anyone can attest who has marvelled at the ease children learn language and struggled themselves in later years to learn a second language, an already wired brain is simply not as flexible.

A bilingual’s first and second languages are integrated in a network, where concepts mediate between first- and second-language translates. The separate linguistic systems of the two languages are simultaneously active and in interaction with one another. Experimental evidence from category verification tasks (e.g. Caramazza & Brones, 1980), picture naming and translation (e.g. Potter et al., 1984), and lexical decision tasks (e.g. Schwanenflugel & Rey, 1986) corroborate this notion. For instance, Potter et al. conclude that the bilingual’s lexical systems are connected both within and across their first and second languages through a language-independent, amodal, conceptual representation. They have found that the concept of a picture or a word stimulus is retrieved as rapidly from one stimulus as from the other. In one experiment, they found that proficient bilinguals were able to name a picture in the second language (L2) and to translate a word into it in a comparable time, because in both cases interpretation requires evoking the conceptual representation of the stimulus; i.e. L1–L2 word associations are not made directly between the bilingual’s languages but rather through the mediation of neutral concepts. To test whether word association might be true only of fluent L2 speakers, Potter, et al conducted another experiment using non-fluent subjects. They discovered that these subjects were slightly faster in naming pictures in L2 than translating words into it. This means that
even non-proficient L2 speakers interpret pictures and words through a mediating concept which is common to both languages.

EFL students seem to use a common conceptual base to convert L1 expressions into L2 and vice versa. They do not have duplicate conceptual entries serving their respective languages, but rather one common stock of concepts that represents their own perception and understanding of the various events, situations, and elements experienced in the worlds of their languages. If this is truly the case, then we do have grounds to substantiate the claim that no matter how hard EFL students try to separate between the worlds of their languages, they will not be able to. Furthermore, we can understand in part how language learning takes place: vocabulary learning is achieved either by tagging new foreign labels (words) to concepts that are already present in the memory or by creating new concepts and attaching the new foreign words to them. In the latter case, EFL learners will attempt to create a link between the new concept and the concept serving an old L1 word by extending its meaning. Failing that, they will simply leave it without an L1 label; thus, the L2 word will have no native language equivalent.

Interaction

With this understanding, mother-tongue facilitation and interference in vocabulary learning can be easily accounted for. Where there is a complete match between the concept of a new foreign word and a concept already existent in the student’s memory, facilitation takes place; they simply have to remember the new foreign label. Where the word’s concept does not exist in their memory, they will experience difficulty, for they have to do two things: create the concept and attach the new word to it. These two cases are relatively easy to teach and to learn. It is where there is partial overlap between the concepts of L1 and L2 words that more serious difficulties of teaching and learning arise. The partial overlap might exteriorise in one of four cases:

1. A new foreign word’s concept is a subset of a pre-existing concept;
2. It is a superset of more than one pre-existing concepts;
3. It is partly a subset of a pre-existing concept and partly a new one;
4. It is an amalgam of subsets of several pre-existing concepts.

The fact that L1 and L2 lexicons are separate does not mean that they are also insulated from one another. It does not exclude interactions between lexical items within one language and across the two languages. Free recall-based experiments carried out as early as the 1950s (e.g. Jenkins & Russell, 1952; Deese, 1959; Bousfield, 1953; Jenkins et al., 1958) clearly point to intra-lingual lexical association. Jenkins and Russell have shown that when stimulus words are presented at random, highly associated words tend to be recalled together. Clustering words like this is an indication that lexical items within the same language are connected with each other at the permanent memory level. It is most likely that recall of associated words together depends on the strength of association between them. Deese (1959) discovered that lists of high frequency associates are better recalled than those of low frequency associates, or those of zero-frequency associates. Jenkins et al. (1958) found that the higher the degree of association between a pair of words, the greater their chance of being recalled together.
Inter-language connections between lexical items have also been observed in several studies (e.g. Chen & Ng, 1989; Jin & Fischler, 1987; Cristoffanini et al., 1986). In a lexical decision task, De Groot and Nas (1991) found that including the translate of a stimulus word in the set of primes used in the same experimental session reduces reaction times significantly; this suggests that whilst the lexical items of the two languages are separately stored, some degree of connection is maintained between translation equivalents. The connection is most likely through the common conceptual base. In fact, Yaghi (1994: 152) talks of this very idea in relation to translators and says that

The strength of association between translates depends on the amount of conceptual information they share and/or the frequency of association between them. When reference is made to a concept, not only does the [word]... that connects to it gets invoked, but so do its sub- and superordinate concepts, conceptual clusters, and assemblages. They will all be excited to a degree depending on their conceptual proximity and their level of collocation or association. Evoking a concept brings its [word]... to the awareness of the translator. As there is a tendency for an SL [word]... to be paired with its translate in TL, exciting the concept by an SL [word]... results in bringing its TL counterpart to the awareness of the translator.

If this is true, then Weschler’s claim that ‘adult learners simply can not escape the influence of the first language’ is substantiated. Why then should teachers deny themselves the opportunity of making use of the great resources of the mother tongue? It is indeed wiser to guide EFL students in finding L1–L2 equivalents than to leave them to their own devices.

Simultaneous Interpretation as a Learner Task

SI tasks can be carried out in a classical language laboratory or a multimedia computer lab, but not in a traditional classroom. The reason is simply that simultaneous interpretation necessitates listening and speaking at the same time, and that cannot be achieved without audio equipment that is capable of playing back an SL discourse and concurrently recording its translation. Multimedia labs have an advantage over traditional labs because they offer audio and video equipment in addition to computers. For purposes of this teaching technique, only the audio equipment and electronic dictionaries are needed, but with a little imagination it is also possible to modify the SI technique. It can make use of satellite television and Internet sites that have real-audio content to improve the passive skill of aural fluency and for use at the same time as stimulus for SI.

Fluency

Although SI is based on translating, it is aimed at teaching English rather than translation techniques; so the emphasis is on oral fluency in the English language and not on accuracy, fidelity, or translation problems. Furthermore, the language of interaction in the classroom is exclusively English. The teaching material, however, is two types: that which is studied and that which is listened to on tape; the former is in English whilst the latter is in the students’ native language. The rationale is that the native language material, which only features on tape and is
never publicly broadcast, is but an aide to teaching English; it is used to facilitate the development of oral fluency in English. Therefore, there is no occasion in the EFL classroom when L1 becomes subject-matter for teaching.

The native language material is restricted to a tape recording used to stimulate speaking in the English language. An English passage chosen by teachers is either translated by teachers themselves or given to someone to translate into the native language. Then the native language version is recorded on tape, that being the source that will whisper content to students to communicate into English. The passage is best selected on a current topic from English newspaper or magazine feature articles, or TV or radio interview transcripts. The language there tends to be day-to-day idiomatic English, be it standard or colloquial, and the topic is of interest. The most important consideration is to ensure that the passage is relevant, theme and language-wise, so that students do not get bored talking about a dull subject or using bookish English. Let me pause for a minute and give a synopsis of the SI technique.

At the beginning of a teaching session, the teacher introduces the English passage that they want their students to work on. They read this English passage slowly asking students to silently translate it into their mother tongue as it is being read. Then they read it a second time, sentence by sentence, requesting students once more to mentally translate as they listen and stopping to comment on what a sentence means. They write idiomatic expressions, speech formulas, unfamiliar words, and interesting grammatical structures on the board for students to take note of. The teacher either reads the passage for the third time or gets a student to read it. Now students are presumed to have comprehended the ideas well and to have been taught ways of expressing them in English in a native-like manner. They are requested afterwards to play their tapes and listen through to their mother-tongue pre-recorded version of the English passage.

The students’ active speaking session begins when the teacher asks them to start translating the recorded passage back into English using their notes. Students now focus on translating the passage, sentence by sentence, recording, rewinding, erasing, and recording again. In the meantime, the teacher monitors their performance and observes their errors. When the teacher thinks they have had enough practice, the class are asked to stop drilling and to give a final rendition of the passage but without pausing the tape or rewinding it and without the aid of their notebooks. An evaluation session follows, where samples of individual performances are broadcast to the whole group and the individuals concerned are given the opportunity to identify their own errors before their peers are invited to.

**Presenting the passage**

To discuss the rationale for each of these steps, let us first consider the passage presentation. The teacher reads the English passage for the first time to present a model performance whose pronunciation, structure, lexicon, and idiomaticity students are expected to emulate. Students will also listen for the overall meaning of the passage before considering it more carefully. They are asked to mentally translate it into their mother tongue as it is being read for the purpose of getting them to check their understanding of its content. If they attempt to trans-
late it, they will be able to identify areas of difficulty with the passage; hence, they will be able to question the teacher on them.

Reading the passage a second time is to ensure that its vocabulary, idioms, and speech formulas are understood and learned well, for the students are to reproduce these in their translation session. Writing these on the board is classical classroom practice in which the written word reinforces the spoken one. Also students can write them down in their notebooks for ease of reference when they start drilling on SI.

The third reading is intended to give the natural flow of the English passage without interruption. Students can then have an appreciation for the last time of what their translation product will need to sound like. Who will render the third reading is not very important. It is nice for the students themselves to read it, but teachers have to choose a good student model who will not denaturalise the flow of the text.

After these three readings, students are encouraged to listen once to the entire stimulus native language version of the passage under discussion. Thus, they will familiarise themselves with their teacher’s translation of the passage and will consequently learn whether their understanding matches that which the teacher purports to be the native language meaning of the passage. In cases of discrepancy in understanding, students are encouraged to get clarification.

With the readings and discussion, students are expected to have comprehended the English passage fully, but with their drilling on simultaneous interpretation they are expected to memorise all English words and speech formulas in the passage and to learn how to express them in native-like ways. Rehearsal, as cognitive psychologists say, is essential to the transfer of information from the working to the long-term memory. Here teachers achieve student learning instantly, ‘in cash’. The relentless problem of transfer from passive to active knowledge is resolved; students learn vocabulary, speech formulas, and structures that they put to use immediately. This use strengthens the link between a word, term, or speech formula and its conceptual base, the thought, it stands for. The more students drill on SI, the more they memorise that which we want them to.

A further advantage is that students’ error avoidance is reduced significantly. Because they have to render specific ideas into English, they cannot do without those English words, speech formulas, and structures that the activity is instilling in them. They have to use the prescribed ways of expression most appropriate to the ideas in the passage; if they are not comfortable with them, they have to practise further. Without SI, teachers would labour on teaching an item but have little control on getting their students to use it. Here they are compelled to use it. Delivery in this teaching method is instant.

Interpreting

For an appropriate length of time, students practise translating into English their pre-recorded native language version of the passage. Once the drilling has finished and the students feel comfortable translating the passage into English, their final rendition will boost their fluency. Here, they will be producing an uninterrupted monologue in English, the language we are teaching. They will not be hindered by running out of ideas. They will not be barred by loss of words. They will not be delayed by looking for an appropriate grammatical structure.
The native language version provides ready-made ideas; the tape whispers into their ears what to say and gives them pointers on how to say them. The L1 words prime them to produce the English words that they have just learned. The first-language grammatical structures will aid them in the organisation of thought; students will need to think from scratch as to how to formulate an idea.

Some critics might say, ‘But this simultaneous interpretation is an artificial situation, and in real life no one will whisper ideas, words, and structures into one’s ears’. That is absolutely true; no denial. The counter argument, however, is that the entire classroom situation is an artificial one. Can anyone claim that a conversation whose topic is pre-determined by the teacher is a natural conversation? Foreign-language classrooms are inherently artificial; for learning a language is generally done when people are too young to appreciate what they are doing. Furthermore, the SI activity is a natural occasion for the transfer of ideas from one language to another. Although there is no real audience for their speech and hence the communication act is incomplete, this is less artificial than the traditional pair work, where classmates who share one common native language are asked to talk to one another in a foreign tongue about some information that they have no need to talk to one another about. SI fosters less artificiality.

In the last stage, performance evaluation is collectively done to further oral fluency and communication realism. Now students will have real rather than faked arguments; they will disagree about the best ways of expressing specific ideas and will critically assess the implication of each others’ linguistic use. Furthermore, such evaluation raises awareness of their own errors, a factor that can lead to a conscious change in how they say things. Perhaps it is not psychologically comfortable to be the subject of criticism, but personal experience proves that this is not a genuinely serious concern. Once a classroom culture is established, students do not mind criticism. In fact, students will remember better corrections made by their peers than those made by the teacher; for it is the job of the teacher to make corrections and it is expected of him or her to know better. Their peers, on the other hand, are not supposed to know more so their corrections will stay in mind longer.

The Experiment

A group of senior students went through a semester-long experience of this technique and praised it in abundance; they learned almost one thousand vocabulary items and speech formulas. However, our scientific curiosity demands that we quantify the value of this technique. In the remaining sections, a report will be made of an experiment carried out on sophomore students.

The subjects who participated in this experiment were all from a sophomore reading class. They were all female Omani native speakers of Arabic studying to qualify as English schoolteachers. The 20 female students in this class were divided into two groups of more or less comparable ability; their average marks in continuous assessment were used as a guide. Four students were eventually excluded from the experiment; two because of their failure to attend the post-test and the other two because of matching the absent ones.
The text

The stimulus passage was a short feature article written by Hidajet Delic, an Associated Press journalist, for *U.S. News Today*. It dealt with the theme of celebrities being used by charities to boost fund-raising. The passage is three paragraphs long with 283 words in total and a word-list of 193, 29 of which were unfamiliar to the student subjects.

The pre-recorded Arabic version of the stimulus was less than five minutes in duration. It was recorded on the left track of student audiotapes reserving the right track for student discourse. The Arabic recording was done at a speech rate reasonably slower than normal spoken Arabic, to reduce the detrimental effect of simultaneous listening and speaking. The quantitative details about the Arabic passage may be summarised in Table 1.

### Table 1 Characteristics of pre-recorded Arabic version of the passage

| Feature                              | Value   |
|--------------------------------------|---------|
| Duration (in minutes)                | 4.7     |
| Total number of words                | 273     |
| Word list items                      | 194     |
| Propositions                         | 22      |
| Idiomatic expressions                | 31      |
| Grammatical structures (sentences):  |
| Simple sentences                     | 12      |
| Compound sentences                   | 7       |
| Complex sentences                    | 3       |
| Speech rate (syll/sec)               | 2.7     |
| Proportion of pause durations (%)    | 45      |

### Instrumentation

The experiment was carried out in a language laboratory where each student had a computer station with full multimedia capability. The English passage under study was displayed on the screen and an electronic dictionary was occasionally consulted by individual students to look up words that had not been discussed in class. Once the analysis of the passage had been completed, the students used sophisticated audio units to listen to and/or record speech. These units are capable of recording student input stereophonically and of outputting the stimulus discourse binaurally, thus allowing both the stimulus and response to be delivered to each ear. At the same time, the tracks may be separated by delivering the native language stimulus to one ear and the English response to the other. The choice opted for here was to deliver the stimulus binaurally to reduce the mental strain of listening and speaking simultaneously.

In the experimental analysis stage, each student’s audio tape was converted from an analogue to a digital form, then both tracks were graphically transformed. The details of the graphic signals facilitated speech transcription and
permitted probing into all types of dysfluency. *Sound Edit* on the Macintosh was used in the playback and transcription stage.

**Experimental procedures**

Initially a colleague and I had the intention of conducting this experiment using two groups of students, but due to timetable limitations, I had to pilot the study on one group of senior students for a whole semester. When the technique proved successful, I decided to run a one-time experiment on a group of sophomore students using one of the early passages that were tried on the senior students. The experimental design adopted here is still a two-group design of the pre-test–post-test type.

**Pre-test**

Two groups of eight students each participated in the experiment. The two groups together had the same pre-test. Students were told that they would listen to an English passage, would participate in a discussion on its content, vocabulary, speech formulas, and structures, then they would be instructed to retell the passage in English as fully as possible and with as much authenticity as they could. They were given no time limit to complete the task. They were specifically told to reproduce as many of the story’s ideas, words, idioms, and structures as they possibly could. In cases where they remembered an idea but did not remember how it was phrased, they were encouraged to use their own ways of expression. They were told that their ultimate goal was to communicate the story’s ideas fluently and in a native-like manner. Their speech was recorded on tape, and that is what constituted our pre-test.

**SI test**

Afterwards, the experimental group was asked to remain in the main laboratory whilst the control group was directed to the self-access lab. The experimental group then listened to an Arabic version of the stimulus passage and was asked to retell it in English once more. They were given the same instructions as before but told that this time the Arabic version was there to remind them of the content. Their task was not to translate the passage back into English; therefore, they did not need to worry about translation fidelity or about missing words and sentences. Rather, the task was to communicate the content of the passage as authentically and as fully as possible using any ways of expression that they felt comfortable with. Within half an hour, students drilled on retelling the passage in English as they simultaneously listened to its Arabic version before they gave their final uninterrupted rendition. This final translation constituted our simultaneous interpretation test, so it was recorded on tape.

The control group, on the other hand, was taken to the self-access laboratory to prepare for the last phase of the experiment, which was to be given the following day. They were told to break into pairs and to practise retelling to one another the content of the passage as fully and as authentically as possible. Their aim was to use as much as they could of the original vocabulary, speech formulas, and structures, so that they would perform better on the experiment the following day. This training session lasted as long as the experimental group took to complete their task.
Post-test

Once the tasks had been completed, both experimental and control groups were requested to come back the following day for the post-test. They listened to the same English passage a couple of times, then once to the instructions that they had been given the day before for the pre-test; they were requested once again to retell the passage as fully and as authentically as possible. In this post-test, there was no utilisation of either the English or Arabic versions of the discourse and there was no time limit on how long the students took to retell it.

Analysis

Sound signal analysis

The Arabic stimulus passage, the two groups’ pre-test and post-test discourses, and the experimental groups’ simultaneous interpretation pieces were digitally converted, graphically transformed, and their contents transcribed. The sound signals of pre-test and post-test passages appeared in single channels, whilst simultaneous interpretation discourses were separated into Arabic and English sound signals. These in turn were displayed in dual channels with the stimulus Arabic signal in the top channel and the student’s English discourse in the lower one, thus facilitating analysis of the effect of Arabic prompting on students’ speech. Each sound, linguistic or otherwise, that the students produced in their passages was recorded; speech bursts of any duration and pauses of 200 millisecond duration or longer were measured and recorded.

Content analysis

Once the sound signal analysis and transcription were completed, content analysis started. Words and syllables in each passage were counted, word-lists compiled, dysfluencies isolated, propositions and idiomatic expressions identified, and grammatical structures categorised.

In word and syllable counts, every instance of a word and every meaningful syllable, excluding those in false starts and in pause fillers, was tallied. These counts were used to calculate speech rates in words per second and syllables per second units by dividing the total number of syllables or words by the duration of an entire recording in seconds.

Two word counts have been used here: the raw count used in the calculation of speech rates and the one in word lists. The difference is that the first takes all instances of words into account, whilst the second takes stock of the vocabulary used excluding repetitions.

Instances of dysfluency include incomplete words, meaningless sounds, pause-fillers, hesitations, false starts, and successive repetitions. Although most types of dysfluency are inherent to spoken language, an excessive amount in foreign language speech can impede the act of communication. Brown and Nation (1997: 4) agree that “Signs of fluency include a reasonably fast speed of speaking and only a small number of pauses and “ums” and “ers””.

Content analysis also focuses on the ideas contained in a piece of discourse. The ideas students wish to communicate are labelled here as propositions. A proposition is a thought unit expressed by a topic and a comment; i.e. the subject
and verb in a verbal sentence, or the subject and predicate in a stative sentence. A proposition, for our purposes, is the central part of a sentence; therefore, it is invariably located in the main clause and never in subordinate clauses.

Idiomatic expressions are not exclusively those phrases or clauses whose meaning cannot be inferred from the total meaning of their constituents. They are rather speech formulas, phrasal verbs, collocates, or conventionalised expressions that are completely lexicalised, partly lexicalised, or schematic (see Pawley, 1985). They include such phrases as ‘a handful of’, ‘dedicated to X’s memory’, ‘hundreds of millions of dollars’, and ‘the ADJ+er’, the ADJ+er as in ‘the longer, the happier’.

Grammatical structures were identified using an Ergo piece of software called Bracket Doctor. This is an NLP grammatical parser that classifies sentences, among other things, and draws trees for their constituents. The only pertinent piece of information adopted here was the classification of sentences into simple, compound, and complex.

Results

At first, it was necessary to establish whether the experimental and control groups came from the same population, i.e. whether there were any significant differences between them that could bias the results. The two group’s pre-tests were compared for dysfluency, inactivity, word lists, idiomaticity, grammatical sophistication, and idea loadedness. If one group were inherently better, its performance on the first attempt of retelling the contents of the English passage would have been significantly better. If the differences between their performances were not significant, then the conclusion would be that the control and experimental groups were of similar competence. Using t-test, the two groups performances in the pre-tests were compared and the results are presented in Table 2.

Table 2 The two group’s pre-tests

| Aspect of performance | t-value for 7 df | p-value |
|----------------------|-----------------|---------|
| Dysfluency           | 0.24            | 0.8172  |
| Inactivity           | 2.027           | 0.0822  |
| Wordlist             | 1.73            | 0.1272  |
| Idiomaticity         | 0.357           | 0.7318  |
| Gram. sophistication | 2.049           | 0.0796  |
| Idea loadedness      | 1.528           | 0.1705  |

The table clearly shows that differences between the two groups’ pre-tests are not significant at a 95% level of confidence for four of the six measures. The control and experimental groups’ pre-tests are similar in the degree of dysfluency, idiomaticity, idea loadedness, and the size of the word list they used. The two groups, however, were slightly different in the degree of inactivity and grammatical sophistication. These slight initial differences between the control and experimental groups are not likely to influence their performance on the
post-tests, since the two groups were similar in four of the six content measures. Let us now analyse this performance by comparing the post-tests with one another, then the two tests with the simultaneous interpretation test; we will use the $t$-test for the first and ANOVA for the second.

**Fluency data**

To determine the degree of fluency in the students’ discourses, two aspects of their performance will be investigated: the magnitude of inactivity and the amount of dysfluency. The first is determined by calculating the ratio of pausing in the students’ discourses, then the post-tests’ ratios will be compared using a two-tailed matched $t$-test. The result $[t(7) = 10.146, p < 0.0001]$ indicates that the inactivity ratio in the experimental group’s post-test is significantly lower than that in the control group’s with a mean difference of 19.875%. Performing a comparison across the three tests (pre-test, post-test, and SI test) confirms that the control and experimental groups have had distinct ratios $[F(2,14)= 217.616, p < 0.0001]$. The largest inactivity ratio has been found to be in the control group’s post-test (77.375%) and the smallest in SI (46.125%), whilst the experimental group’s post-test ratio (57.5%) has been found to be in between. This means that the students who used the SI task achieved a higher degree of fluency than those who did not.

The second aspect of performance used to measure students’ fluency is the frequency of hesitations, false starts, repetitions, and pause fillers. Although these are inherent to spoken language, when they exceed some threshold in a foreign speaker’s discourse they blemish it and make it sound influent. To find out how fluent the groups were on post-tests, the frequencies of dysfluency are compared; the result $[t(7) = 39.401, p < 0.0001]$ makes it abundantly clear that the experimental group was more fluent than the control group, the mean difference being almost 23 instances. When these tests are compared with the SI test using one-way repeated measures ANOVA, the same conclusions are confirmed $[F(2, 14) = 1528.197, p < 0.0001]$. SI has the smallest average of dysfluencies (36), the experimental group’s post-test about 45, and the control group’s an average of 68 instances.

When the size of students’ vocabulary is investigated, the experimental group’s post-test shows superiority over the control group’s $[t(7) = 67.354, p < 0.0001]$; thereby indicating that the simultaneous interpretation method made a highly significant difference. Whilst the control group used a word-list of approximately 67 items in their post-test, the experimental group managed to enlarge theirs to an average of 136 items. The list of words used in the simultaneous interpretation task is even larger (165 items on average). When the word lists in the three tests are compared, the differences between them prove to be highly significant $[F(2, 14) = 5950.455, p < 0.0001]$; therefore, the type of task does influence the amount of vocabulary used in a student’s discourse.

Idiomaticity makes speech sound more natural; hence, it is necessary to learn which group’s performance was more native-like. The frequencies of idiomatic, formulaic, and conventionalised collocates in the post-tests are found to be significantly different $[t(7) = 16.803, p < 0.0001]$ for the control and experimental groups. The same holds true when the post-tests are compared with SI $[F(2,14) = 479.922, p < 0.0001]$. Roughly speaking, the control group had slightly more than
one third of the idiomatic expressions in the experimental group’s post-test and more than one quarter of those in SI (4.25, 12.5, 18.37 respectively).

**Grammatical structure**

The grammatical structures in a spoken language discourse tend to be simpler than those in written texts; yet relying heavily on short and simple sentences gives the feeling of fragmentation and lack of sophistication in written as well as spoken language. To check the level of sophistication in the two groups’ post-tests, sentences have been classified as one of two categories: simple or compound and complex, then the groups’ frequencies of the latter category have been compared with one another. Once again compound and complex structures in the two groups’ post-tests are found to be significantly different \( t(7) = 7.937, p < 0.0001 \), and when these structures in the two groups’ post-tests and SI are compared, the same result is confirmed \( F (2, 14) = 126, p < 0.0001 \). SI has exhibited the largest number of compound and complex structures and the control group’s post-test the smallest.

Propositions are the main arguments, the ideas in a piece of discourse; hence, it is interesting to learn whether the suggested teaching method can actually improve the content of students’ discourses. For this purpose, a two-tailed matched \( t \)-test has been applied to the frequencies of propositions in the control and experimental groups’ post-tests to find out if they differ on idea-loadedness. It shows them to be distinctly different \( t(7) = 14.387, p < 0.0001 \). When the frequencies of propositions in the two groups’ post-tests and in SI are compared using one-way repeated measures ANOVA, the results support the same conclusion \( F (2, 14) = 482.874, p < 0.0001 \). The mean frequency of propositions is 6.625 for the control group’s post-test, 13.249 for the experimental group’s, and 19.251 for SI.

In conclusion, we can say that although both control and experimental groups belong to the same population, the experimental group exhibited in the post-test lower degrees of inactivity and dysfluency, but larger word lists, more idiomaticity and grammatical sophistication, and a higher density of ideas. Similarly, their performance on the simultaneous interpretation test manifested the same trend though more strongly. It is safe to conclude, therefore, that the SI technique is responsible for these results.

**Diagnostic Potential of SI**

The distinction between such dichotomies as competence and performance, active and passive linguistic knowledge, and productive and receptive skills is unanimously accepted by language specialists. The challenge that faces foreign language teachers is to make students’ performance reflect their competence, their active knowledge exhibit their passive knowledge, and their productive skills match their receptive skills. Whilst there are various methods of achieving this goal, SI has considerable potential in this regard.

As explained earlier, SI offers for rendition into the foreign language a natural native language discourse, which uses the equivalent of the foreign-language taught structures, idiomatic expressions, and vocabulary items. Hence, students are forced to use the new concepts and structures to retell the native language
discourse in the foreign language. Because they have the opportunity to drill on using the new items in class, they have a better chance of learning what the concepts mean and how they are used. In the process of learning, however, students are bound to form wrong hypotheses about the meaning and usage of these items, and that constitutes a unique opportunity for the teacher to intervene with correction before an error fossilises.

SI reduces error avoidance to a minimum. The fact that the stimulus native-language discourse mirrors the content that they are asked to render into English necessitates that they use the very concepts and structures that the teacher taught at the beginning of the class period because they are the most suitable. Using alternative ways of expression is always a possibility, yet the pressures of simultaneity make it inevitable that students consult their notebooks rather than do a mental search for alternatives. Furthermore, because of students’ desire to learn and due to teachers’ encouragement, they will attempt to use the new items. Once they do, their misconceptions about the structures, meanings, and usage will be readily exposed.

Because of the recency of learning, the new concepts and structures may be unstable and students may display some inconsistency in their usage and pronunciation. An alert teacher will need to identify these and take the necessary corrective measures. They may explain the concepts further and give their students more practice.

Students’ errors in syntax, vocabulary, and idiomaticity need to be analysed and categorised. During the monitoring stage, teachers must listen for errors that individual students make, and when some errors are found to be common they must make the time to discuss them with the class as a group. In fact, teachers may also identify where students exhibit hesitations and false starts, for that is an indication that the structures, idiomatic expressions, and vocabulary items being taught are unstable; therefore, they need further enforcement.

To illustrate how SI exposes errors, the discourses used for our experiment have been analysed and the errors categorised. Table 3 shows the errors made by one student. An analysis of these errors indicates that there are five major problems that the teacher needs to address with this student: articles (1, 2, 4, 5, 7), prepositions (2, 9), noun modification (3, 8, 10), noun-verb agreement (5), and fragments (6). Of minor importance are the errors in articles, prepositions, and order of adjectives. Some of these errors are common to the class as a whole (e.g. articles and noun modification); therefore, the teacher needs to discuss them with the group and to keep those unique to a particular student for a private conference. They need to remind the class at large, for example, that a linking verb as in (2) can either be followed by a noun phrase or an adjective, and if the latter is the case then the adjective need not be modified by a definite article, because articles modify nouns, not adjectives.

Upon analysis of the same student’s hesitations and false starts, the items reported in Table 4 have been found to be unstable. All of the problems here are the result of instability in learning. Because the student had just learned a set of structures, expressions, and vocabulary items and was then asked to use them, she made these mistakes. We can see how the student failed to remember the idiomatic phrase ‘live famine relief concert’ in (1), had difficulty remembering ‘fund-raising’ (in 2, 3 and 4), the word ‘landmines’ (in 5), ‘charity’ (in 6), and the
expression ‘wilderness protection’ (in 7). The teacher needs to reinforce these terms and give students further tasks that require their use so that they can achieve long-term learning.

In a traditional teaching context, the EFL teacher will have little chance to get students to use specific terms. They will have simply taught structures, idiomatic expressions, and vocabulary items and given their students controlled exercises that required the artificial use of the new items. If they do the exercise well, the teacher will consider learning to have been achieved. In SL, on the other hand, teachers provide their class with natural contexts that require use of the very items they are teaching. So the students have little choice but to use these items in

| Context of error | Intended statement | Category of error |
|------------------|--------------------|-------------------|
| 1. Diana is considered to be an emblematic of the transformation which ... | Diana is considered to be emblematic of the transformation which ... | Article |
| 2. Elizabeth Taylor and Elton John are the eponymous of the Aids assistance and Kim Basinger with animal rights ... | Elizabeth Taylor and Elton John are eponymous with Aids assistance and Kim Basinger with animal rights ... | Article, Preposition |
| 3. Institutions consider them as very vital aspect in fund-raising | Institutions consider them very vital in fund-raising | Noun modification, Word choice |
| 4. Most fund organisations depend on the celebrities to make people aware of these kinds of issues. | Most fund-raising organisations depend on celebrities to make people aware of these kinds of issues. | Word choice, Article |
| 5. The number of the celebrities who adopted issues like these were small | The number of celebrities who adopted issues like these is small | Article, Noun-verb agreement |
| 6. Larry Copald, the chairman of the Environment Protection Lobby who said, ‘It is very sad ...’. | Larry Copald, the chairman of the Environment Protection Lobby said, ‘It is very sad ...’. | Fragment |
| 7. Help them carrying the message to the people | Help them carry the message to people | Verb pattern, Article |
| 8. One hundred hospitals, charity fund, and a humanitarian organisation | One hundred hospital, charity fund, and humanitarian organisations’ | Noun modifiers |
| 9. It is expected to reach to hundreds of thousands of dollars | It is expected to reach hundreds of thousands of dollars | Verb-preposition |
| 10. The most effective fund-raiser celebrity | The most effective celebrity fund-raiser | Order of adjectives |
a natural context. This will reinforce how the items are expected to be used. If students make mistakes, or if they have hesitations and false starts, the teacher will immediately know that further practice is needed. Notice how little error avoidance the student above practised; that is entirely because of the practice in context that she did in class. Simultaneous interpretation, therefore, is an excellent tool for converting passive into active knowledge and for circumventing error avoidance.

**Conclusion**

The SI technique is capable of delivering better fluency. We can safely conclude that translation from the native language contributes positively to the development of oral fluency.

SI is a teaching technique that is most suitable for upper intermediate and advanced EFL students. Although the experiment described here was carried out in a multimedia laboratory, the technique can be easily adapted to a traditional classroom by changing the medium of the native language discourse. Students can have a typewritten version of the native language stimulus to translate from and achieve similar results. Class size should not be a discouraging factor, as SI is a student-centred teaching technique. The teacher plays the role of the facilitator who gives assistance and solves problems while monitoring student performance.

In summary, the SI technique allows teachers to explain a set of structures, idiomatic expressions, and vocabulary items at the beginning of a class period. Then it enables students to listen to a piece of discourse in their native language where the equivalents of the taught items are used in a natural context. Students are then expected to spend the bulk of the class period using the taught English structures, expressions, and vocabulary to retell the native language piece of discourse. Thus, the SI method allows students to see how the new English concepts and structures are communicated in their native language, and at the same time it requires that they re-communicate the message into English. By necessity, they have to use the newly taught English structures, idiomatic expressions, and vocabulary items to communicate the new concepts, but only after

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**Table 4 Dysfluency problems**

| Context of hesitation and false start | Category of problem |
|--------------------------------------|---------------------|
| 1. A musical concert in 1985 e... (1.8) for thee (0.6) Aid (0.6) Famine Relief ... | Recall |
| 2. The process of charity fu... to... (0.3) fund ... (1.0) charity funds (0.7) fund-raising | Recall |
| 3. Today most ee... (1.9) fund organisations depend... | Recall |
| 4. Before Diana cuts back her mm... (1.2) fund-raising | Recall |
| 5. Of mil landmines e... (0.5) | Recall |
| 6. She had supported e... (0.6) for about 100 hospitals ee...(0.9) charity fund... | Recall |
| 7. Wilderness e... (0.4) protection | Recall |

*Note: The numbers between parentheses stand for pause durations in seconds.*
learning how they are expressed in their native language. This way, SI ensures that students will not make false hypotheses about how the new English concepts fit into their own conceptual world.

In the process of drilling on rendering the native language discourse into English, students learn to use the new concepts and structures and they develop a feel for the context in which the concepts are used. The drilling is rehearsal and rehearsal is essential, cognitive psychologists assert, for the transfer of information from the working memory to the long-term memory. Learning is immediate; therefore, we should have more faith in the facilitative role of the mother tongue.

Correspondence

Any correspondence should be directed to Dr Sane M. Yagi, English Department, College of Arts and Sciences, University of Sharjah, PO Box 27272, Sharjah, United Arab Emirates (saneyagi@yahoo.com).

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