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THE EFFECT OF DIRECT INSTRUCTION IN FORMULAIC SEQUENCES ON IELTS STUDENTS' SPEAKING PERFORMANCE

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In the light of previous research into the correlation between the acquisition of formulaic sequences and language learners' fluency gains, this study aims to investigate the extent to which an intensive course of direct instruction in preselected targeted formulaic sequences can improve IELTS students' oral fluency. In achieving this purpose, the researcher explores criteria for selecting formulaic sequences for intensive instruction as part of an IELTS speaking preparation course, and outlines principles for selecting and developing tasks and activities for the acquisition of formulaic sequences. The methodology for our intensive instruction course was quantitatively and qualitatively assessed using a group of five intermediate second language learners of English who had not received IELTS training before. A body of empirical data was gathered in pre- and post-course speaking tests conducted in full accordance with the IELTS format, with the test takers' performance being audio recorded. Recorded data were imported into Praat speech processing software to examine the temporal characteristics of the participants' speech. Analysis of the pre- and post-test recordings using a number of temporal measures revealed a significant increase in the number of targeted formulaic sequences used by the study participants after four weeks of intensive direct instruction. Analysis of the empirical data collected suggests a beneficial effect of formulaic sequence acquisition on both IELTS students' speaking performance and on their overall Speaking scores. The findings obtained are used to hypothesise to what extent formulaic sequences acquired through the course of direct instruction can influence test-takers' IELTS Speaking scores.

Keywords: formulaic sequences; direct instruction; oral fluency; IELTS; speaking performance.

Introduction

There have been numerous studies carried out in recent years on the benefits of formulaic sequences (FSs) in acquiring speaking skills and fluency. At the same time, it is generally accepted by researchers (Dillon 2015, Wood 2009, Mirzaei, Hashemian & Farsani 2016) that methodology for teaching FSs is yet to be thoroughly explored. A deeper understanding is required of pedagogical methods and approaches to teaching FSs and native-like fluency in speaking within the communicative approach, of ways of integrating FSs into existing language curricula and courses in English as a second language (ESL), and of principles for developing activities and tasks that will foster FS acquisition and enhance second language (L2) fluency in learners. Even less studied are the role and significance of FSs in preparing students for high-stakes international English language tests such as IELTS, TOEFL, etc, as well as the impact of acquired FSs on test-takers' overall scores. This theoretical study is one of the first attempts to analyse the already available meaningful research data on FSs in the context of IELTS preparation and to identify a set of guiding principles to develop a short intensive course of instruction in targeted FSs as part of IELTS training. In addition, it describes the results of teaching such a course to a group of intermediate L2 learners, which will, firstly, give some insight into the impact of this course on the development of speaking abilities and fluency in L2 learners in a non-native environment (and consequently on IELTS Speaking scores) and, secondly, help outline promising directions for future research in this area.

This research is based on two sets of studies: those investigating formulaic language in the context of oral fluency training, and those investigating the impact of focused instruction in FSs on L2 speech production and speech performance.

In the present study, the term *formulaic sequence* is used as defined by Wray (2000): a FS is "a sequence, continuous or discontinuous, of words or other meaning elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar" (p. 465). This seminal definition is widely accepted within the language research community since it encompasses a wide range of language phenomena diversely termed in the academic literature. FSs are understood to be an umbrella term embracing different types of word combination units which, over the last four decades, have been variously labelled by researchers as chunks, collocations, conventionalised forms, fixed expressions, formulae, formulaic language, lexical bundles, multiword units, ready-made utterances, etc. This list is by no means exhaustive. Wray (2002) argues that over fifty terms can be found in the literature in this regard (p. 9). On the one hand, this is due to the enormous number of forms considered, from two-word expressions to longer standardised phrases, idioms, collocations and proverbs. On the other hand, these forms serve a variety of pragmatic and semantic

functions such as agreeing, repetition, confirmation, conversational routines, rhetorical devices, etc. (Bygate 1988, Boers *et al.* 2006, Wood 2006, Conklin & Schmitt 2008).

The widespread interest in FSs can doubtless be attributed to their prevalence in language use and numerous benefits to the language learner. According to Altenberg (1998), FSs account for 80% of the words in the London–Lund corpus of spoken English (cited in Wood 2009, p.42). Erman and Warren (2000) state that prefabricated phrases comprise 58.6% of choices in the spoken language. Since 1983, when Pawley and Syder (1983) pointed out that FSs were essential for speech production and could be automatically retrieved from memory, there has been plenty of research on the benefits of formulaic language, which can be summarised as follows: ease of processing, speaking fluency, the management of discourse and conversation, the conveyance of meaning and the facilitation of language acquisition (Bygate 1988, Yorio 1989, Wray & Perkins 2000, Wray 2002, Boers *et al.* 2006, Carter & McCarthy 2006, Bygate 2006, Ellis 2012).

There is evidence, though not conclusive, that FSs are also beneficial for L2 learners. Scarce studies on instruction in the use of FSs in speech indicate their significant effect on oral fluency when L2 learners are exposed to explicit instruction (Boers *et al.* 2006). Wood (2004, 2006, 2007, 2009) reveals correlations between increased use of FSs, improved fluency and more effective discourse management. These findings, as well as the concept of oral fluency, are of particular importance to this study given that fluency is one of the four assessment criteria in the IELTS Speaking Test.

It is unanimously acknowledged that fluency is a complex construct but, as Wood (2009) aptly noted, across all of the studies of spoken fluency "there has been a remarkable degree of agreement on the types of temporal variables to be tracked" (p. 40). The temporal measures of fluency most frequently used by empirical researchers include speech rate (i.e. the total number of syllables uttered in a given speech sample and divided by the amount of total time taken to produce the sample (including pause time), measured in seconds or minutes), phonation/time ratio (the percentage of time spend speaking as a percentage proportion of the time required to produce the speech sample), the mean length of runs (an average number of syllables produced in utterances between pauses of 0.25 sec and above), the number of silent pauses per minute (the total number of pauses over 0.2 sec divided by the total amount of time spent speaking expressed in seconds and multiplied by 60), the mean length of pauses (the total length of pauses above 0.2 sec divided by the total number of pauses above 0.2 sec), and the number of disfluencies per minute (Kormos, 2006, p. 163).

Each of these temporal measures has its merits and demerits but it is not appropriate here to compare them in terms of exploring certain aspects of fluency. Yet it is worth noting that normally a number of these measures are employed to obtain reliable fluency measurements.

This study draws on research carried out by de Jong and Wempe (2009), who described a method for automatically detecting syllable nuclei in order to measure speech rate without the need for a transcription. They wrote and tested a script for the software programme Praat designed for speech analysis. As a result, they concluded that a syllable count measured in this automatic fashion sufficed to reliably assess and compare speech rates between participants and tasks. A year later de Jong and Wempe (2010) updated their script thus enabling Praat to process audio files and automatically measure speech rate, along with the number of pauses, phonation-time, etc. Based on this work, the present study uses the following measures as indicators of fluency gains: speech rate (SPR), phonation/time ratio (PTR), the number of silent pauses per minute and the mean length of pauses (MLP). These are described in the Method section below.

As of yet, there is no empirical research on instruction for FS acquisition by IELTS students. However, there are few studies looking at the effect of instruction in formulaic language through the prism of oral fluency. Two of them are of particular interest to this study. The first one was undertaken by Wood (2009) who offered probably the most comprehensive and extended programme of instruction focused exclusively on FSs. This programme involved a range of activities carried out in the following three stages: input, automatisation and production. In the end, Wood's case study participant showed clear fluency gains in the measures of speech rate and mean length of runs. According to Wood (2009), "increased use of formulaic sequences was a help in increasing fluency of expression in many cases for this learner" (p. 53).

The other study is that by Geraldine Dillon (2015) whose work builds largely on Wood (2009) and takes his findings a stage further. She pays particular attention to mechanisms considered to prompt automaticity, namely those of proceduralisation and chunking. Dillon developed a ten-hour course for students taking Leaving Certificate Irish at Higher Level with a view to fostering FS acquisition, incorporating FSs into free conversation and facilitating the automatic use of FSs in a fluent manner. The temporal measures used in that study (mean length of pauses, phonation/time ratio and mean length of runs) evidence statistically significant improvement in speech fluency demonstrated by the students during the post-tests (Dillon, 2015, p. 259). A number of practical activities offered by Wood and Dillon were used in our course as detailed in the appropriate section below.

Finally, it is worth mentioning some studies (Read & Nation 2002, Khodadady & Shamsaee 2012, Mirzaei, Hashemian & Farsani 2016) dealing with FSs in relation to the IELTS Speaking Test. Read and Nation (2002) were interested in investigating this test from a lexical perspective rather than in terms of fluency gains, and attempted to find out whether the use of formulaic language varied according to the candidate's band score level. Their qualitative analysis, suggestive and inconclusive as it was, showed that higher band candidates used more FSs in their speech, with Band 4 candidates demonstrating only limited evidence of formulaic language.

Another interesting study was undertaken by Khodadady and Shamsaee (2012). Building on Ohlrogge (2009), who identified eight types of FSs used by intermediate level learners of English when doing the written part of the Examination for the Certificate of Competency in English (ECCE), Khodadady and Shamsaee (2012) attempted to identify these same types of FSs as used by 41 intermediate Iranian students taking the IELTS Listening and Speaking tests. They found that two of the eight types of FSs identified by Ohlrogge, namely "personal stance markers" and "transitions", showed a significant correlation with the candidates' speaking scores. Interestingly enough, Khodadady and Shamsaee (2012) came to the conclusion that all the other types of FSs, including collocations, idioms and phrasal verbs, were not correlated to speaking scores. Despite the fact that the present study is based on a different approach to selecting FSs for instruction, Khodadady and Shamsaee's (2012) findings were taken into account when developing the intensive IELTS fluency training course to be discussed in the appropriate section below.

The most recent research findings obtained by Mirzaei, Hashemian and Farsani (2016) are also indicative of the benefits of receiving intensive instruction in FSs for IELTS candidates. Unfortunately, the authors did not detail the structure and activities of the course of instruction they had offered their participants. Neither did they use any temporal variables to measure the learners' fluency gains. However, based on expert judgements obtained from two experienced IELTS teachers and two university professors, the researchers compared the pre-test and post-test results in one control and two experimental groups involved in their study. Consequently, they found that the two month's lexis-based instruction emphasising the use of FSs had enabled the Iranian IELTS candidates to improve their speaking performance and to build up a good repertoire of L2 lexicon required for active use.

Research objectives and tasks

Thus, given the already-confirmed findings such as the correlation between the acquisition of formulaic sequences and language learners' fluency gains, and also taking into account the virtually unexplored area of teaching FSs in the context of language test preparation, it should be noted that the purpose of this study is to identify key principles and effective approaches to developing intensive direct instruction in FSs aimed, first and foremost, at improving IELTS students' oral fluency, and, therefore, at increasing their IELTS Speaking scores. Achieving this purpose involves accomplishing a number of objectives which can be formulated as the following research questions (RQ):

1) What are the criteria for selecting FSs for intensive instruction in formulaic language as part of the IELTS speaking training course?

2) What are the principles for selecting and developing tasks and activities for FS acquisition?

3) To what extent does such intensive direct instruction in FSs contribute to an increase in oral fluency expressed in temporal measures?

4) To what extent can FSs acquired through such instruction improve test-takers' IELTS Speaking scores?

Programme of instruction in targeted FSs for oral fluency

The programme of direct instruction described below grew out of a practical need to prepare cadets at the Ivan Kozhedub National Air Force University for IELTS in order for them to obtain an IELTS certificate and qualify for the 9-month officer training course at the Royal Air Force College in Cranwell. The minimum requirement for candidates was to score at least Band 5.5 for Listening, Reading, Writing and Speaking on the IELTS test. After a group of 2nd-year cadets (hereinafter "Group 1") had failed to receive the required score in January 2017, the University's leadership decided to create a new group of cadets (hereinafter "Group 2") and offer them an intensive IELTS preparation course. In mid-February 2017, the Foreign Languages Department was tasked to develop such a course and begin exam preparation so that Group 2 were ready to pass IELTS in early April 2017. The main problem was that there was insufficient time allocated to develop the IELTS preparation course and prepare cadets for the exam. However, by the end of February 2017, the IELTS preparation course was ready for delivery, including the intensive speaking programme based on instruction in targeted FSs. This is further detailed below. As a result, IELTS training sessions commenced in March 2017.

The programme of direct instruction in targeted FSs comprised 7 class sessions held for 2 hours (120 minutes) each, twice a week. Each session involved the following five stages: input, automatisation, extension, memorisation and practice, oral production and free speaking. Such an approach is based on what is known in the existing literature as noticing, automatisation, memorisation, and the use of native speaker models (Wood, 2009, p. 48).

When selecting FSs for the intensive course of direct instruction, it was decided to adhere to the following criteria:

– They must be relevant and directly related to the IELTS Speaking Test format and tasks. In particular, a large number of questions asked to find out the test taker's views on various topics or whether he/she agrees with a certain viewpoint suggest the importance of personal stance markers. Not surprisingly, Khodadady and Shamsaee (2012) found that these markers showed a significant correlation with speaking scores.

– They should help the test taker to speak on various topics at length, in particular by exemplifying, contrasting and paraphrasing things. This is closely connected with speaking strategies aimed at helping the test taker to keep talking even if he/she is running out of ideas.

– They should contribute to the coherence of discourse, which is essential since test takers are marked on this as part of the IELTS grading. Coherence can be enhanced by using discourse structuring markers and topic orientation markers.

– They should be neither too long nor too short in order, on the one hand, not to be too difficult to memorise and, on the other hand, to increase the test taker's score for vocabulary and grammar (if possible).

Given below is a table showing seven types of FSs selected for the intensive instruction course.

Table 1

Formulaic sequences selected for the intensive programme of instruction

Item No.	Types of FSs	Targeted FSs
1	Opinion markers	from my perspective, I am of the opinion that, as far as I am concerned, to be honest / in my honest opinion (in my humble opinion), I tend to think that, I do believe/feel/think, I have come to the conclusion that, I have limited experience of this but, in my book, it's a complicated/difficult issue but I, I've always thought that, in my judgement
2	Discourse-structuring markers	first and foremost, first of all, to begin with/to start with; in the first/second etc. place; for starters, in summary, to summarise (my thoughts/position), in conclusion, to conclude on this matter/point/issue, (and) last but not least (is)
3	Agreeing/disagreeing phrases	I couldn't agree less, I'd say the exact opposite; not necessarily (this is not necessarily so), that's not always the case, well I think there are valid points for both, it seems to me that there are two sides to consider; I agree to a certain extent (I agree to a large extent), I can agree up to a point; that's precisely what I think, I couldn't agree more, I absolutely agree (with that)
4	Exemplification markers	let me refer to one example, to take one example, for instance, to illustrate this by way of an example, allow me to illustrate this point, let me illustrate what I mean/what I have in mind, let me take as an illustration, by way of illustration, to exemplify the point
5	Expressions for making contrasts	on the one hand … on the other hand, let's look at this from another angle, (however) there is another side to the coin, on the contrary, in comparison with, by comparison, by contrast, in contrast to, an alternative view is that, from an alternative perspective, needless to say
6	Topic management/ orientation markers	returning to my (previous) point, to return to the prior topic, that point notwithstanding; as I was saying, in addition to that, on top of that, and what's more; let me move on (now) to the next question/topic/point, that leads me to; not to mention, much less
7	Paraphrase markers	to put it in another way, to paraphrase, in other words, to put it differently, to put the matter another way, what I am trying to say is (that), let me rephrase that, that is to say, by way of explanation

Each of these was meant to be taught and practised in one of the seven sessions offered as part of the intensive course of instruction in FSs.

Input stage

This stage was meant to provide a useful and appropriate lead-in to the shadowing activity. The learners were initially introduced to a recording of native speakers sharing their ideas on a particular topic relevant to IELTS questioning. Such recordings had been preselected from a variety of online resources. The main criteria was that they had to contain at least two to three/four targeted FSs. Prior to the shadowing activity, the learners were provided with the transcribed text as a gap fill exercise, with a focus on targeted FSs. After listening to the recording and discussing its content, the learners were given awareness of the role and discourse functions of the FSs.

Automatisation stage

The central activity at this stage was "shadowing" which involves repeating a discourse spoken by a native speaker just a fraction of a second later. This is achieved by reading a written text aloud several times while simultaneously listening to a recorded model. The shadowing activity was aimed, within this programme, at fostering targeted FSs memorisation. The learners were asked to shadow the recording with the transcript in the language laboratory four to six times and then to do the same without using the transcript. In fact, shadowing is more than just repetition of a native speaker, therefore the learners were encouraged to closely imitate the native speaker in pronunciation, rhythm, pace and intonation.

Extension stage

The purpose at this stage was to extend the number of FSs already acquired through shadowing. The learners were presented with six to eight new FSs of the same type as those in the recording in order to enrich their repertoire of formulaic expressions. At first, the learners read and discussed sample sentences where such targeted FSs were used in an authentic context. Next, they were tasked to paraphrase the FSs contained in the recording they had shadowed using the newly-presented formulaic expressions. As well as that, the learners attempted to add more targeted FSs to the shadowed text.

Memorisation and practice stage

A series of activities developed for this stage was intended to have the learners remember targeted FSs and practice using them in oral communication. First, the dictogloss featured in Wood's fluency workshop (Wood, 2009, p. 49) was used to promote awareness of the newly-presented FSs and to improve the learners' knowledge thereof. With this procedure, a number of sentences containing targeted FSs were read to the class at normal speed, with the learners taking notes and jotting down familiar words and phrases. Then the learners worked together in pairs to reconstruct the sentences as heard. The final versions were then compared with the original text, with particular attention given to differences in structure and phrasing.

The next task was to rephrase the underlined portion of 10 to 12 sentences with the word given. Below is an example of one of the sentences the learners had to paraphrase in the session dealing with the opinion markers:

In my opinion, the Swedish model has been very problematic. (far) Answer: *As far as I am concerned, the Swedish model has been very problematic.*

The final step at this stage involved playing a discussion game. The learners were asked to pick three to six paper slips (depending on the need either to practice newly-presented FSs or to recycle previously learned ones) with targeted FSs on them and to start a discussion on a particular topic. The participants were to speak in turn and use up their words before others. The most challenging aspect was speaking meaningfully and naturally while at the same time listening to other speakers in order to stick to the topic. The person who was the first to get rid of all the FSs he/she had picked up won, but to do so he/she had to make up sentences that sounded grammatically and semantically correct. If not, he/she had to try again.

Oral production and free speaking stage

This final stage was viewed as a culmination of each session. At first, the learners followed the 4/3/2 procedure associated with Nation (1989). They were given 5 to 10 minutes to prepare a narration on the topic related to the input listening passage, using brief notes. Then each learner was required to deliver his/her story to a partner in the group three times: first with a 4 minute time limit, and then in 3 and 2 minutes. This time pressure was supposed to prompt a more fluent delivery and to prevent the speakers from introducing new material. This was followed by a mock speaking test based on the IELTS format (either Part 2 or 3), the topic being normally linked to the input listening text.

Empirical data

To answer RQs 3 and 4 it is necessary to analyse the data collected in a group of five intermediate L2 learners of English (i.e. Group 2), referred to hereunder as Student 1, Student 2, Student 3, Student 4, and Student 5. They were aged between 20 to 22 at the time of the data collection. These study participants had not been provided with IELTS training before but had completed a 100-hour course in English for military

purposes. The only exception was Student 1 who had done a couple of IELTS practice tests to familiarise herself with the format prior to taking the IELTS test in Group 1 on 21 January 2017. Despite having failed to achieve the required score, Student 1 was admitted into Group 2 because she had managed to receive an overall band score of 5.0. In particular, she had scored Band 5 for Speaking so her chances to improve the band score after doing the intensive IELTS preparation course seemed fair enough.

It is worth noting that even though the empirical data presented herein is not meant to be conclusive, but, rather, illustrative, it does provide insight as to the effect of direct instruction in targeted FSs on the learners' oral fluency gains. More conclusive and exhaustive figures would require carrying out an extensive empirical study, using a control group design.

Method

The primary source of data analysed in this study was the pre-test and post-test results achieved by the five participants prior to and after doing the course of instruction respectively. These were two mock IELTS Speaking tests, namely Mock IELTS Speaking Test 1 (hereinafter "the Pre-test") and Mock IELTS Speaking Test 2 (hereinafter "the Post-test"). They were conducted in full accordance with the IELTS format (Parts 1-3) while at the same time the test takers' performance was audio recorded.

Comparative analysis of these audio recordings allows us to compare the total number, types and frequency of targeted FSs used by the participants before and after the course. In addition, the audio recordings of the participants' spoken performance in Part 2 of Mock IELTS Speaking Tests 1 and 2 were imported into Praat to be analysed in terms of the following temporal measures: speech rate, phonation/time ratio, the number of silent pauses per minute and the mean length of pauses.

Part 2 of the IELTS Speaking Test is a monologue which makes it suitable for temporal analysis in Praat. By comparing the temporal measures of the test takers' speech production during the Pre- and Post-tests we will be able to determine to what extent (if any) our course of focused instruction in targeted FSs helped to improve the participants' oral fluency.

As has already been mentioned, the Praat script developed and updated by de Jong and Wempe (2010) was employed in the present study to automatically measure the following features of the Pre-test and Post-test speech samples: 1) the total duration (in seconds) of each speech sample; 2) the total number of syllables produced in each speech sample; 3) the total number of silent pauses of over 0.3 sec; 3) phonation time, i.e. the total time, in seconds, of all syllables produced in a given speech sample plus silent pauses of less than 0.3 sec; 4) speech rate (syllables per second), i.e. the total number of syllables produced in a given speech sample divided by the total duration of the speech sample (including pause time).

These raw data were further processed to calculate the required measures of oral fluency. To obtain the speech rate (SPR) measured as syllables per minute, it was simply necessary to multiply by 60 the SPR value calculated in Praat. Phonation/time ratio (PTR) was obtained by dividing the time spent articulating by the total duration of the speech sample and multiplying the product by 100 (Götz, 2013, p. 21). The number of silent pauses per minute was determined by dividing the total number of pauses over 0.3 sec by the total duration of the speech sample (in seconds) and multiplying by 60. And finally, the mean length of pauses was calculated by dividing the total length of pauses over 0.3 sec by the total number of pauses over 0.3 sec.

By default, the Praat script by de Jong and Wempe (2010) uses a minimum pause duration of 0.3 sec. This is in line with Wood (2009), who noted: "Given that native speakers seldom hesitate longer than 0.5 seconds in mid-clause or 2 seconds at a clause juncture, 0.3 seems a reasonable cut-off. As well, the tradition in fluency research has been to use 0.25 to 0.3 seconds as a lower end cut-off" (p. 46).

In addition, an IELTS speaking score of 5.0 obtained by Student 1 in the official IELTS test on 21 January 2017 is used in the present study as a point of reference against which to compare the score from the second IELTS speaking test Student 1 took on 8 April 2017 after doing the intensive course of instruction focused exclusively on teaching preselected FSs. By comparing Student 1's Speaking band scores awarded by certified IELTS examiners we will be able to gain an idea of the impact of targeted FSs on the L2 learner's overall IELTS speaking score as a result of focused teaching and acquiring such FSs through short-term direct instruction.

Results and discussion

Analysis of the Pre-test and Post-test recordings revealed a dramatic increase in the number of targeted FSs used by the participants at the end of the instruction programme. For instance, on the Pre-test, Student 1 produced only five expressions which fall into three of the seven types of FSs presented above, namely opinion markers, discourse-structuring markers and agreeing/disagreeing phrases: "I think" (used 11 times), "in my opinion" (3 times), "first of all" (2 times), and "I agree/don't agree" (6 times). These account for a

total of 63 syllables. On the Post-test she produced a total of 23 targeted FSs (see Table 2) from the above types except Type 6 (i.e. topic management/orientation markers). These amount to a total of 195 syllables. The other participants, though inferior to Student 1, also showed a considerable improvement on their pre-test performance both in terms of the range and quantity of FSs used. Specifically, Student 2 produced 16 targeted FSs (115 syllables) compared to 4 FSs (21 syllables) in the Pre-test ("I think" (5 times), "I disagree" (used once), "I hope" (once), "to tell you the truth" (once)); Student 3 used 13 targeted FSs (136 syllables) as against 6 (41 syllables) in the Pre-test (("I think" (7 times), "I don't think so" (once), "I guess" (once), "it goes without saying that" (once) "in my opinion" (twice), "I agree" (once)); Student 4 produced 9 FSs (68 syllables) as against 4 (30 syllables) in the Pre-test ("as for me" (3 times), "I think" (4 times), "for example" (twice), "I don't agree" (once)); and Student 5 used 5 FSs (47 syllables) compared to 3 (13 syllables) in the Pre-test ("I think" (3 times), "for example" (once), I agree (once).

Table 2

Targeted FSs used by the participants on the Post-test

Targeted FSs used	Student 1	Student 2	Student 3	Student 4	Student 5
	Number of uses of targeted FSs / Number of syllables in FSs used				
from my perspective	1/5	–	–	–	–
I do believe/feel	3/11	1/4	–	–	–
to be honest	4/16	–	2/8	1/4	5/20
I am of the opinion that	1/8	–	1/8	–	–
in my book	2/6	1/3	1/3	–	1/3
I have come to the conclusion that	1/9	1/9	–	–	–
I tend to think	–	–	–	3/12	–
it's a complicated issue but I	1/10	1/10	2/20	–	–
as far as I'm concerned	1/7	1/7	–	–	–
for starters	1/3	1/3	–	1/3	–
first and foremost	1/5	1/5	–	–	–
in summary	1/4	–	1/4	1/4	–
not necessarily	1/6	–	–	–	–
I agree to a certain extent	1/9	1/9	2/18	–	–
I couldn't agree more	1/6	–	2/12	–	–
I absolutely agree	2/16	1/8	3/24	2/16	1/8
for instance	2/6	–		–	–
let me illustrate what I mean	2/16	–	1/8	–	–
on the one hand … on the other hand	2/18	1/9	–	1/9	–
needless to say	1/4	2/8	–	–	–
there is another side to the coin	1/9	–	1/9	–	–
let me rephrase that	2/10	–	–	–	–
to put it differently	1/7	–	1/7	–	–
in other words	1/4	1/4	–	1/4	2/8
as I was saying	–	1/5	–	–	–
I have limited experience of this but	–	1/10	1/10	–	–
in conclusion	–	2/8	–	1/4	–
it seems to me that there are two sides to consider	–	1/13	–	–	–
on the contrary	–	–	1/5	–	–
that is to say	–	–		3/12	2/8
Total	**34/195**	**18/115**	**19/136**	**14/68**	**11/47**

Then Part 2 of the Pre- and Post-tests was processed by Praat, which resulted in the following raw data:

Table 3

Speech data from Part 2 of the Pre- and Post-tests provided by Praat

Name of participant	Name of test	Number of syllables	Number of pauses	Duration of speech sample (s)	Phonation time (s)	Speech rate (no. of syllables/duration)
Student 1	Pre-test	336	54	129.23	90.05	2.60
	Post-test	557	65	185.94	150.51	3.00
Student 2	Pre-test	394	70	158.13	118.05	2.49
	Post-test	399	50	145.00	116.49	2.75
Student 3	Pre-test	441	31	176.72	158.01	2.50
	Post-test	619	21	217.95	208.45	2.84
Student 4	Pre-test	224	21	152.52	134.69	1.47
	Post-test	330	75	203.45	150.69	1.62
Student 5	Pre-test	223	40	121.00	68.43	1.84
	Post-test	255	46	136.29	101.55	1.87

In accordance with the procedures described in the Method section, this data was further analysed to obtain temporal measures of fluency demonstrated by the participants during the Pre- and Post-tests.

Table 4

Temporal fluency measures of the participants' speech

Name of participant	Name of test	Speech rate (no. of syllables/min	% change	Phonation/time ratio	Number of silent pauses per minute	Mean length of pauses (s)
Student 1	Pre-test	156	15.4	69.7%	25.1	0.73
	Post-test	180		80.9%	21	0.55
Student 2	Pre-test	149	10.7	74.7%	26.6	0.57
	Post-test	165		80.3%	20.7	0.57
Student 3	Pre-test	150.4	13.3	89.4%	10.5	0.60
	Post-test	170.4		95.6%	5.8	0.45
Student 4	Pre-test	88.2	10.2	88.3%	8.3	0.85
	Post-test	97.2		74.1%	22.1	0.70
Student 5	Pre-test	110.4	1.6	56.5%	19.8	1.31
	Post-test	112.2		74.5%	20.3	0.76

The data above indicates that the presumptive decision to develop our short-term intensive IELTS speaking course based on direct instruction in targeted FSs turned out beneficial for the participants in terms of the quality and quantity of speech output as well as fluency gains.

The focused instruction in targeted FSs helped the participants to fill a gap in their knowledge of discourse markers, raised their awareness of FS functions and provided them with a repertoire of authentic FSs.

The fact that all the participants increased the use of targeted FSs of various types on the Post-test compared to the Pre-test suggests an improvement in the diversity of these learners' speech patterns. On the other hand, the syllable contribution from increased FS use contributed most notably to the quantity of Student 1's, Student 2's and Student 3's speech output. For example, the total number of syllables in all the FSs used by Student 1 during the Pre-test was 63 (of which 14 were produced in Part 2 of the test) compared to 195 on the Post-test (with 90 syllables produced in Part 2). As is seen from Table 3, Student 1's speech sample in Part 2 of the Pre-test consisted of 336 syllables overall, 14 (4.2%) of which were from targeted FSs ("I think" (used 3 times), "first of all", "in my opinion"). By comparison, her Post-test speech sample consisted of 557 syllables (see Table 3), 90 (16.2%) of which being from targeted FSs ("I do believe", "I do feel", "to be honest", "in my book", "I have come to the conclusion that", "it's a complicated issue but I", "first and foremost", "in

summary", "for instance", "let me illustrate what I mean", "on the one hand… on the other hand", "needless to say", "there is another side to the coin", "let me rephrase that", "to put it differently", "in other words"). In the case of Student 2 and Student 3, targeted FSs accounted for, respectively, 10.8% (43 syllables constituting 6 FSs: "I have come to the conclusion that", "as far as I'm concerned", "first and foremost", "on the one hand … on the other hand", "as I was saying", "in conclusion") and 5.2% (32 syllables constituting 5 FSs: "to put it differently", "let me illustrate what I mean", "it's a complicated issue but I", "in my book", "to be honest") of the total number of syllables they uttered in Part 2 of the Post-test. As regards Student 4 and Student 5, their results in this respect are not statistically significant (less than 3%).

From the data presented in Table 4, it may be assumed that during the Post-test Student 1, Student 2 and Student 3 were able to speak with greater fluency and to show more speech output. In the Post-test, they demonstrated greater willingness to speak at length and managed to give a longer answer, with fewer pauses per minute, higher phonation/time ratio and shorter mean length of pauses (see Table 3), the only exception being Student 2's MLP, which remained unchanged (0.57). All these, along with the fact that Student 1's, Student 2's and Student 3's speech rate showed a 15.4%, 10.7% and 13.3% improvement respectively on the Post- test, attest to fluency gains as a result of automatisation tasks and free speech practice.

As for Student 4 and Student 5, their speech fluency data are less unequivocal. Student 4's SPR did increase by 10.2% but his overall PTR dropped to 74.1% and the number of pauses almost tripled to 22.1 though the MLP slightly decreased (see Table 4). Student 5's SPR remained virtually unchanged, with the PTR and MLP showing clear signs of improvement. On the whole, these learners' fluency gains are questionable along with the fact that the number and diversity of targeted FSs they acquired from this course are quite low compared to other participants. This could be explained by two reasons. Firstly, Student 4 and Student 5, when selected for the Pre-test, were at the beginning or near the intermediate level of English proficiency and the course material could be too complicated for them both in terms of vocabulary and grammar. This seems to be in line with Read and Nation's (2002) observation that higher-level learners tend to use more FSs in their speech compared to lower-level ones who demonstrate only limited evidence of formulaic language. Secondly, Student 4 missed two out of the seven class sessions of the programme, and Student 5 missed four.

Finally, the measured improvement in Student 1's speech production was indirectly confirmed by, and correlated to, the score she received on the second IELTS test on 8 April 2017. In particular, Student 1 scored Band 6.0 for Speaking, which surpassed our initial target of 5.5. Unfortunately, such data are not available for the other four participants. We can only say that Student 2, Student 3, Student 4 and Student 5 scored respectively Band 5.5, 6.0, 5.0 and 5.0 for Speaking on the IELTS test on 8 April 2017.

Conclusion

The evidence reviewed in the above section supports previous findings that formulaic language contributes to second language fluency, thus highlighting the need for developing pedagogical approaches designed to help language learners acquire formulaic language. The empirical data presented indicates that the observed increase in the participants' fluency gains was the result of the intensive speaking course based on direct instruction in targeted FSs. The improved fluency of expression Student 1, Student 2 and Student 3 demonstrated upon completion of the course and the higher band score (6.0) Student 1 achieved in the second IELTS Speaking test suggest, though inconclusively, that the main principles to be considered in developing such a programme of instruction are: 1) the functional and contextualised use of preselected targeted FSs; 2) the incorporation of targeted FSs into free conversation including fostering the learner's ability to combine formulaic with novel expressions in speech production; 3) the automatic use of targeted FSs (i.e. developing the ability to produce such FSs non-analytically and fluently).

In responding to RQ1 raised in this study, it needs to be noted that the main criteria for selecting targeted FSs should, on the one hand, take account of the IELTS Speaking Test format, IELTS Speaking tasks and IELTS Speaking band descriptors, and, on the other, enhance students' quality and quantity of oral expression.

As regards RQ2, the key principles for selecting and developing activities as part of the IELTS fluency training course include awareness, practice and production, with repetition and memorisation techniques playing a central role in the course design. The results of this study are supportive of recent cognitive and linguistic research on the benefits of memorisation and repetition activities despite being considered by many as incompatible with a communicative approach to language learning. However, further research will be needed to translate them into training and teaching procedures.

The main limitations of this study are related to RQ3 and RQ4. Namely, they are associated with the small sample size. Data collected for five participants without a control group comparison makes it difficult to generalise the results to other participants and contexts. However, the consistency of the results does suggest a hypothesis that would be worth testing against data from more extensive empirical research with a

control group design. Thus, it would be beneficial to conduct further studies using a larger number of participants over a longer period of time to see if the oral fluency results obtained in this study can be replicated.

Based on this study, it can be tentatively hypothesised that in the case of intermediate L2 learners with an initial IELTS Speaking score of 5.0 a programme of direct instruction in targeted FSs as presented herein may well increase an overall band score for speaking by at least half a band.

Despite the above limitations, the findings presented herein do evidence a promising effect of integrating a programme of direct instruction in targeted FSs for oral fluency into IELTS preparation courses, as well as prove benefits of doing so for IELTS students' speaking performance.

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