

## **EXPLORATORY PRACTICE: RESEARCHING THE IMPACT OF SONGS ON EFL LEARNERS' VERBAL MEMORY**

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### **Abstract**

Traditionally popular songs have been used as a way of enhancing listening and auditory perception skills and teaching vocabulary, but not necessarily for memory recall. Popular song gap-fills are already commonplace within the EFL (English as a foreign language) field; however, this study found that more attention needs to be given, to the lexical, grammatical and phonological items that learners are instructed to retain. The results of this study suggest that, verbal memory is a vital part of language learning that should be incorporated into popular song gap-fills and that EFL teachers, theorists and textbook authors need to review the way language in popular songs is encoded, stored and retrieved, by incorporating memory strategies, following guidelines on gap-selection, including a phonological aspect and using a recycling activity. In this article traditional and contemporary understandings of verbal memory and popular song are outlined and comprehensively analysed within relevant fields that embrace ELT (English language teaching), Biology, Psycholinguistics, Neurolinguistics and Cognitive Psychology perspectives and discusses their pedagogical implications.

### **Introduction**

In 1956 Dean Martin and The Easy Riders famously sang *Memories Are Made of This* (1955), but do popular songs such as this have the power to develop our verbal memories. Learning, as stated by Thornbury (2006, p.129), is dependent on memory, and 'language learning in particular, with the enormous load of vocabulary that it requires, is largely a memory task; therefore, it demands the ability to store and retrieve enormous amounts of memorized information'. The role of verbal memory in language learning and the place of popular songs in making learning memorable are noteworthy for several reasons. For instance, 'no one knows exactly why songs are powerful, but everyone knows from a personal point that they are'; they are a non-threatening and satisfying art form, with the ability to affect our emotions (Griffie, 1992, p.4). However, the purpose of this study was not to explore the general value of popular songs in language teaching, but rather their impact on language learning through an investigation into the role of memory in language learning and the place of songs in making learning memorable.

Traditionally verbal memory has been recognised as a vital attribute in language learning. During the audio-lingual period, it was reflected in rote-learning pedagogy, which favoured the intentional, quick memorisation of words through continuous repetition (Robinson, 2009, p.23); similarly, it was widely used in the aptitude tests of the 1950s and 1960s, the Modern Language Aptitude Test (MLAT) and the Pimsleur Language Aptitude Battery (PLAB), which listed it as a key component of language aptitude (Lightbown and Spada, 2006, p.58). Nevertheless, the importance of verbal memory has been downplayed in explicit approaches such as communicative language teaching (CLT), which emphasize creative and spontaneous use of language over memorisation. 'For this, [...] pattern drilling was either completely abandoned or replaced by communicative drills' (Dörnyei, 2009, p.34). Nonetheless, this paper argues that meaningful language presented in a popular song could

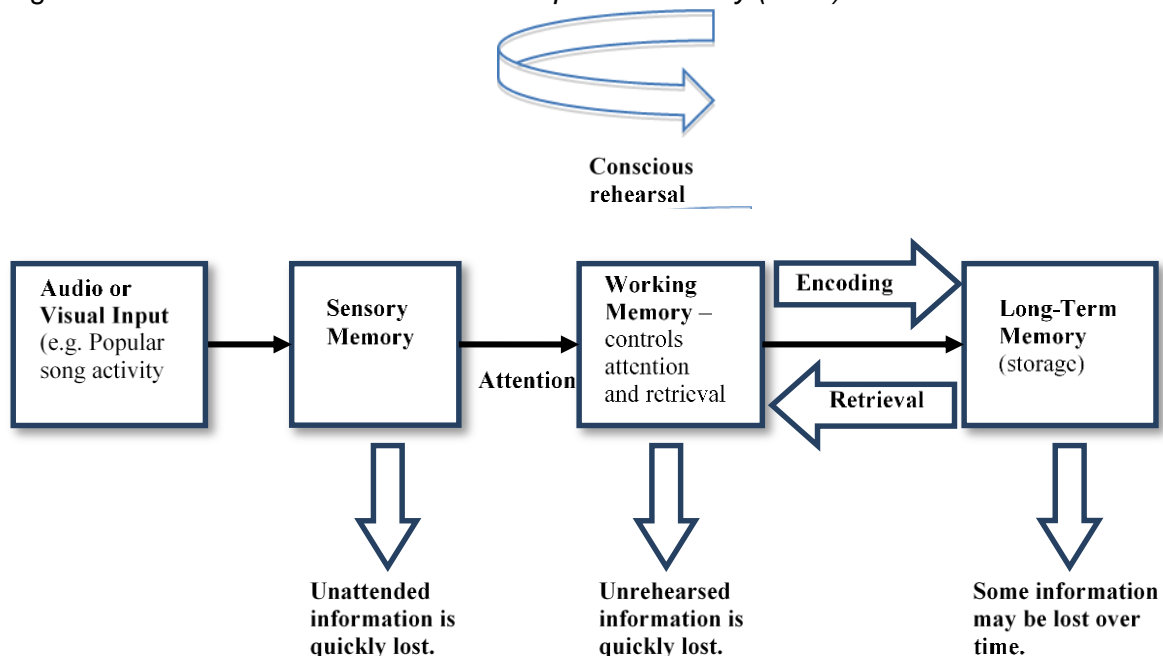
offer a more interesting and effective method of rote-learning (memorising) language, and a popular song activity based on lexical phrases and memory theory could provide a platform on which to build successful language learning.

### Cognitive processes involved in memorisation

#### The role of verbal memory in language learning

Committing words and language to memory is a highly complex cognitive process involving ‘*attention, rehearsal, encoding and retrieval*, which govern the processing of information within stores and the movement of information from one store to another’ (Gray 2002, p.326). As illustrated in Fig. 1, sensory memory (SM), briefly stores audio or visual input unconsciously while a conscious decision is made as to whether the stimuli may be of value to the short-term memory (STM), or working memory (WM) as it is more commonly known (Gibb, 2007; Gray, 2002); this process is called *attention*, that is to say, only information which is attended to (consciously selected) becomes part of the WM (Gray, 2002). In order to attend to input, techniques such as noticing and deep processing, as we shall see later on, can be employed. Then, the STM (WM), which is limited in capacity, stores this input for around 30-45 seconds through conscious rehearsal (repeating over and over) or chunking (grouping information), and if successful encodes (transfers) it to long-term memory (LTM), which has a significantly larger and longer storage capacity and requires no conscious management (Gibb, 2007; Gray, 2002; Skehan, 1998). From here, information can be retrieved for immediate communicative use (Thornbury, 2006).

Fig. 1. *The model of the human mind. Adapted from Gray (2002)*

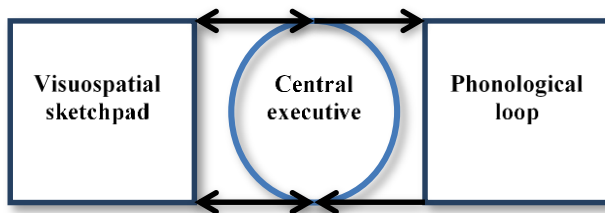


Evidently WM has an important role to play in language learning; however, its confines stress the need for repetition and chunking. For language learning processes, lexical phrases, (Nattinger and De Carrico, 1992), lexical bundles, (Biber *et al*, 1999), collocations and phrasal verbs could all be presented and repeated as chunks in a popular song activity. This paper argues the use of popular songs as one tool for enhancing verbal memory.

### Models of memory functioning

The Baddeley and Hitch (1974) model of WM, which has been revised a number of times (Baddeley, 2003), identifies the following three components of verbal memory: the central executive, the visuospatial sketchpad, and the phonological loop' (Carroll, 2008, p. 48). The phonological loop (PL) is concerned with the storing of verbal and acoustic information, and the visuospatial sketchpad (VS) is its visual equivalent (holding visual and spatial information) (Gray, 2002). In simple terms, the former holds onto 'spoken sound' (Gibb, 2007, p.66); whereas, the latter allows us to form visual images, rotate them in our minds and convert words into images and so on (Carroll 2008, p.48). Both are dependent on the central executive, an attentional control system (Baddeley 2003, p.198) which exerts control over what new information is *attended* to and drawn into the WM from the SM, and what stored information is *retrieved* from the LTM. It then allocates tasks to both the phonological loop and the visuospatial sketchpad (Carroll, 2008; Gray, 2002). See Fig. 2.

Fig. 2. *The three component model of working memory. Baddeley and Hitch (1974, p.191)*



Baddeley (2003, p.191) breaks the PL down into two subcomponents, a temporary storage system which holds memory traces over a matter of seconds during which they decay, unless refreshed by the second component. Carroll (2008, p.48) names these as the phonological store (PS) and the articulatory rehearsal system (ARS) respectively. This ARS or 'subvocal rehearsal system' as Baddeley (2003, p.191) names it, 'enables us to covertly or overtly rehearse materials, thus prolonging their stay in the phonological store' (Carroll, 2008, p.48). Therefore, the repetition of spoken sound as a memory tool in classroom methodology is relevant here. More recently, a fourth subsystem, the 'episodic buffer' (Baddeley, 2000) has been added; this 'temporary storage system allows information from the subsystems to be combined with that from long term memory and form integrated chunks [...] [and assumingly forms] a basis for conscious awareness' (Baddeley, 2003, p.203). This classroom research aimed to respond to these precursors of verbal memory theory by maximising the audio (sounds), visuals, conscious attention (noticing), deep processing, repetition (conscious rehearsal), lexical phrases (chunks of information), storage, retrieval and recycling in popular song lessons.

### Memory and noticing

A popular song gap-fill is one way in which language can be drawn to learners' attention, or as Schmidt (1990, p.132) coined *noticed*. Nevertheless, just *noticing* a word does not mean it has been acquired; Harmer (2007) argues that for acquisition to take place considerable exposure is needed. Therefore, the more frequent the form in a popular song and the more often it is heard naturally outside the classroom; on the radio, in shops and in a nightclub, the more likely it is to be noticed and entered into LTM intake. Moreover, Swain (2005, p.686) says we need to 'help learners notice the gap between their own production and the target' by checking their output with the text, a more proficient speaker or peer. However, it takes time before noticed language goes from input to intake and become stored in LTM (Schmidt, 1990). Consequently, it appears both frequency and authentic exposure are also key tenets of *noticing* and a pre-requisite of any classroom activity requiring explicit or conscious awareness of a grammatical or lexical form.

Moreover, as Batstone (1994, p.40) writes, if learners habitually process language top-down, then much of the grammar will pass unnoticed accentuating the need for the 'personal factor' in L2 acquisition, as 'to be noticeable, language has to be significant to the learner'. It seems plausible that songs, if chosen appropriately; for example, according to learners' preference of artist or genre, will contain a 'personal factor' owing to the emotional attachment or association with the singer, band or group. Furthermore, Skehan (1998) states that forms that call attention to themselves and are 'perceptually salient' are more likely to be noticed. That is, although, a teacher may intend to 'consciously' attract learners' attention to chunks in an audio piece (Schmidt, 1990, p.133), most encoding into LTM is not conscious, and there may be words or phrases in the song that attract special interest on their own and are thus acquired incidentally (Gray, 2002).

### Memorisation

Certain words or phrases can easily go unnoticed or be forgotten over time. For instance, initially, attention may not have been paid, or 'no associations [...] made with existing memories' (Gibb, 2007, p.75); therefore, to consciously encode information into our LTMs, 'memorization techniques' are employed. According to Thornbury (2006, p.128) 'if you memorize a word or expression, you intentionally commit it to memory', yet memorisation has been out of favour in language learning, as it has been associated with tiresome rote learning practices. Thus, in the struggle to build vocabulary (Robinson, 2009), a popular song could provide a more interesting and motivating way of drilling (repeating), rote learning and recycling language. Moreover, certain songs provoke 'deep thought' owing to their content. Gray (2002, p.341) terms this process 'elaboration or elaborative rehearsal' meaning that 'we remember things that capture our interest and stimulate our thought'. Therefore, this allows learners to do more than just simply repeat a word, as they 'personalise it' (Gairns and Redman, 1986, p.100) and tie it to a structure of information that already exists in the LTM (Gray 2002).

There are many mnemonic techniques for the memorisation of words or phrases. Robinson (2009, p.15) cites a complex mnemonic technique, 'the memory journey', where 'items are linked visually to a well-known journey such as your route to work, or rooms in your house'. For example, 'in 2002, The Guinness Book of Records logged the achievement of Dominic

O'Brian, a British man who memorized and recited back the order of 2808 playing cards-54 packs' by converting cards to memorable people that go on a journey, the order of places visited providing the correct sequence' (Gibb, 2007, p.73). Furthermore, Robinson (2009, p.23) cites a large-scale study in which three memory strategies were tested; rote learning, a keyword method (generating a linking word between the L2 word and its L1 translation based on its sound or appearance) and semantic mapping (drawing a diagram relating the new L2 word with L1 associations). Robinson (2009, p.23) reports that the key-word method was the clear winner because 'using key words forces the learner to make both conceptual and form associations to the word they need to learn'. Much of our information about verbal memory has come from these types of experiment (Stevick, 1976, p.11), hence, a popular song could be a useful mnemonic technique, taking learners on 'a musical journey' during which they attach visualised images and recorded sounds to the song, thereby creating links between memories and existing schemata to aid LTM retention.

### **Memory strategies for learning and retrieval**

'The mind can store some 100 trillion bits of information, but only part of that potential can be used unless memory strategies come to the aid of the learner' (Oxford, 1990, p.38). Interestingly, the rhythm and tempo of Butler and Hart's song *Nellie the Elephant* (1956) or the Bee Gees' song *Stayin' Alive* (1978) are used as memory techniques in medical training to teach people the rhythm of cardiopulmonary resuscitation (CPR), so that they can produce the recommended rate for CPR, 100 chest compressions per minute easily in emergency situations (National Public Radio, 2008; Rawlins, Woollard, Williams and Hallam, 2009). However, many learners struggle to retain the considerable amount of lexis needed for fluent practice (Oxford, 1990); therefore, if popular songs could be further exploited in this way, learners could both store and retrieve large amounts of new information without difficulty.

There are many strategies for learning and retrieval. Nevertheless, according to Oxford (1990, p.38), these long established memory strategies, or mnemonics, are only just 'regaining their prestige as powerful mental tools'; they fall into four sets; creating mental linkages, applying images and sounds, reviewing well and employing action. Gibb (2007, p.73) states that 'visual mnemonics can help us remember day to day situations; for instance, on being introduced to someone called Rebecca Taylor, you might try to lodge in your mind the image of her as a red taylor'; such improvised hooks can significantly increase our ability to recall information in the future. *Suggestopedia* is another distinctive language teaching system. It combines 'yoga relaxation and verbal suggestion with the direct method' (Bancroft, 1982). For example, in this relaxed state of *suggestion*, inhibitions are lowered, so there is the potential for greater absorption and the retention of information that otherwise might have presented an acquisitional challenge. Song and musical rhythm in learning are central to this method, 'facilitating the establishment and maintenance of personal relations, bringing about an increased self-esteem and using the unique potential of rhythm to energize' and bring order (Richard and Rogers, 2001, p.100). Its developer, Lozanov (1978, p.28), claims that 'memorization in learning by the *suggestopedic* method seems to be accelerated 25 times over that in learning by conventional methods' and appears to be effective regardless of ability, language level or self-motivation (Richards and Rogers, 2001).

Moreover, this relaxed receptivity allows for the speedy acquisition of items, and reinforces the idea that music can be highly memorable (Murphey, 1992).

### **Research Questions**

In order to ascertain the role/s popular songs play in the memory retention of lexis and grammar, this investigation was guided by the following questions;

1. How well do language learners remember language from a song over a period of three weeks?
2. What phonological difficulties are associated with the auditory perception of lexis in these songs?
3. What other factors affect learners' ability to remember lexical items encountered in a song over a period of time?

These questions arose from personal experience and observations as a teacher in the United Kingdom (UK) regarding the apparent beneficial effects of popular song material in the classroom. It was intended that they would guide me to an understanding of the phenomenon and its effects.

## **Material and methods**

### **Methodology**

There are several ways to determine how popular songs influence verbal memory, one of the more common being Action Research (AR) which requires a large sample or control group and brings about change based on the analysed data (Allwright, 2003; Wallace 1998). However, this paper has selected the Exploratory Practice (EP) approach to adequately answer the research questions. EP, unlike other approaches, is intended for a deeper understanding and enables us to answer a wider range of questions regarding classroom life in a given situation (Allwright, 2003). Moreover, EP converts a 'practical problem into a puzzle –something that demands to be understood' (Allwright, 2003, p.129), as opposed to a problem that needs to be solved. Thus, this EP will allow us to look at the whole issue of how verbal memory is acquired and then, specifically how popular songs fit into this learning. Furthermore, it is intended that this deeper understanding will eventually lead to future changes in pedagogy and material design. For ease, this article will refer to EP in its more generic and less technical term, Classroom Research.

### **Subjects**

The classroom research took place at a UK university based language school in Canterbury, Kent. The sample group consisted of twelve students, ten Japanese and two Chinese. The former were part of a Japanese group on a four week General English course, whilst the latter were long-term students on courses preparing them for university entrance, again representative of learner types at that time of year. The ten females and two males, all in the 18-25 age-bracket, were members of the same EFL class, and so not randomly selected from the school population as a whole. Moreover, Intermediate level learners were chosen 'to avoid the problem of trying to obtain information in the target language from low-proficiency learners' (Nunan, 1989, p.62) and to meet the required level for the language taught in the two popular song activities. This paper has sought to make a modest

contribution to our understanding on how songs aid language learning. These are the preliminary findings of a much larger research project under way. Follow up research will be conducted in other classes, on other nationalities and with other techniques to verify whether the findings are consistent.

### Instrumentation

Four sources of data from four different research instruments (Table 1) were selected to explore the topic of popular music and verbal memory; (1) two separate in-class gap-fill tasks used in week one (Appendices 1 and 2) and repeated in weeks two and three, as delayed posttests, to test memory retention over time (Table 2); (2) a pre and a post questionnaire answered by learners in class; (3) two diary entries containing general observations of both input lessons; (4) qualitative data, from two student postings of the popular songs and their comments on a communal Facebook page. This multi-faceted approach to data collection produced both quantitative and qualitative data and allowed the collation of sufficient data from a variety of viewpoints and angles.

Table 1. *Instrumentation*

Quantitative		Qualitative	
Gap-fill tasks x 2	RQ1	Gap-fill tasks x 2	RQ2
Post-questionnaires x 2	RQ3	Post-questionnaires x 2	RQ1 and RQ3
		Diary entries x 2	RQ2 and RQ3
		Facebook data	RQ1 and RQ3

The purpose of the gap-fill tasks in this study was to quantitatively address research questions one and two. Gap-fills are a commonly used tool in the EFL classroom; they make the format of the popular song lessons easily accessible for the learners and for testing purposes, they are easily quantifiable. Gap-fill song one, the Beatles' single *Penny Lane* (1967) was chosen for its classic and cultural appeal, positive, upbeat and up-tempo rhythm, and fairly simple lyrics. Gap-fill song two, Rihanna's single *Take a Bow* (2008) was chosen for its more modern and popular appeal, its contrasting sombre mood, slower lyrics and vocabulary that is possibly more applicable for young people; for example, where phrases such as *please, just cut it out* (line 7) and *it's time to go* (line 12) are more commonplace. It was imperative to pre-ascertain whether the learners already knew of the two songs, since it may have affected the retention results, as memories of the lyrics might have already been formed and stored in the LTM. Nevertheless, it was affirmed in the diary entries that the students' prior knowledge of the artists and their songs/lyrics was none or minimal.

For the study, ten chunks of language were removed from each popular song gap-fill, since the chunking of lexical items, as discussed, is thought to maximise the load on the PL and increase WM retention. Nattinger and DeCarrico (1992, p.1) define these chunks as 'lexical phrases'; 'language of varying length, [...] like *as it were, on the other hand, as X would have*

us believe, and so on'. Therefore, according to their frequency in the song and their relevance and usefulness for the student, different lexical phrases of varying lengths were chosen in the two popular songs, so as to compare memory recall (prepositional phrases in *Penny Lane*, and collocations and phrasal verbs in *Take a Bow*); one word in each lexical phrase was left in order to create a 'hook', useful in terms of retrieval (Appendix 1 and 2). For Gibbs (2007, p.73) such improvised hooks can significantly increase our future recall. Retention was tested at one-week and two-week intervals to coincide with weekly progress tests.

### Data collection

This research took place over three weeks. One taught lesson was devoted to the learning of each song. This included a gap-fill exercise designed to provide an easily accessible and stimulating input with conscious noticing and development of listening skills; both had accompanying lesson instructions. Each song lesson lasted one hour and involved learners skimming, scanning and listening intensively for information. The learners were not informed of the memory recall tests, so as to avoid priming them to listen to the songs or rote-learn the phrases outside the classroom. The songs were played four times, once for gist (as song unknown/unfamiliar), twice for specific information and again for consolidation. The learners could 'pair check' in order to 'notice the gaps' in their listening and to retain the correct form. The songs were played via a CD, so that learners did not have to also attend to a song video with 'visuals' on a screen (Gray, 2002, p.338). The lexical phrases were suitable for this Intermediate level class, yet words like 'trim' and 'applause' in the phrases *for a trim* and *a round of applause* provided extra challenge.

Retention of the lexical phrases was recorded in two subsequent classes. In week two the songs were re-played once to jog the learners' memory before self-completion and collected straight after, to avoid pair checks, or receive feedback, answers or error correction. In the third week the song was not replayed and learners simply completed a gap-fill sheet and a post questionnaire, again no feedback or corrections were given. Therefore, the former was likely to have involved the WM and LTM and the latter a purely LTM recall test; in each instance, correct words and phrases were counted. See Table 2.

Table 2. *Data collection*

Week one	Week two	Week three
Input: song lesson one	Re-play: song 1 and gap-fill	Gap-fill song 1 and post questionnaire 1
Input: song lesson two	Re-play: song 2 and gap-fill	Gap-fill song 2 and post questionnaire 2

### Data analysis

The results of the gap-fill memory tests were quantitatively analysed using 'scoring'; a process whereby the ten lexical phrases were awarded one point for each accurately completed phrase and half a point for a minor error. Spelling was not counted as an error as the aural retention of the words was the main focus (Table 3).

Table 3. *Scoring system*



Gap-fill answer	Correct?	Score
On the corner	Yes	1
On the corner	Yes - spelling	1
On a corner	Half – incorrect article	0.5
On corner	Half – no article	0.5
On camera	No	0
On	No	0

Lastly, the qualitative data from this research, namely the post-questionnaires, diary entries and Facebook produced a large amount of written information. Thematic analysis helped highlight the vocabulary items and lexical phrases most commonly recalled by participants in each song; it minimally organized the described data in (rich) detail, as this six-phase process shows (Table 4) (Braun & Clarke 2006).

Table 4. *Thematic analysis. Braun and Clarke (2006, p.79)*

1. Familiarizing yourself with your data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Write report

## Results

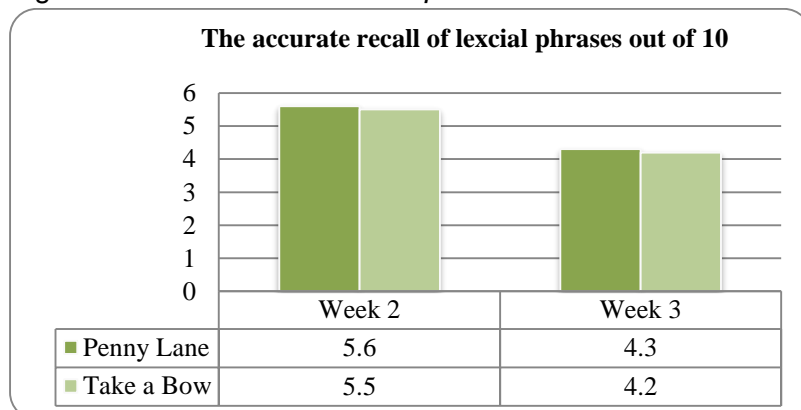
### Research question 1: Memory retention and recall

Initially, as expected, over a three-week period, the number of lexical phrases accurately recalled from the songs decreased, but as Fig. 3 indicates, there were still high levels of recall in weeks two and three, around 55% and 40% respectively. Additionally, when the rate at which we forget information is considered, around ‘eighty per cent within twenty-four hours of initial learning’ (Gairns and Redman 1986, p. 90), the fact that the learners were able to accurately recall such amounts over a three-week period, is very encouraging for the song and verbal memory relationship. Nonetheless, this claim should be followed up and verified by further research into the memory retention of other listening comprehension tests.

Interestingly, in both week two and three, the figures were very similar for *Penny Lane* and *Take a Bow*; 5.6% and 5.5% and 4.3% and 4.2% respectively, and although the learners performed marginally better (0.1%) on the retention of lexical phrases in *Penny Lane* compared to *Take a Bow*, this amount is so slight as to be insignificant. Therefore, these similar figures suggest that the differences between the two songs were not a significant factor in affecting memory. In week three, despite retention dropping further, it still remained significant with accurate mean and median recall figures of no less than 40%. It is difficult to discern whether in a possible week four, memory retention would fall yet again; however, in line with *decay theory* (Gairns and Redman, 1986, p.89), it would be expected to decline steadily. Nevertheless, postings of the two songs and comments on Facebook two months later indicated two things; firstly, that the song material prompted learners into ‘painless revision’ or ‘rote-rehearsal’ outside the classroom, accentuating the frequency and exposure

of form, and secondly, that ‘a personal factor’ and/or ‘a group culture element’ was evident, possibly leading to the rich processing of the encoded items into the LTM.

Fig. 3. Accurate recall of lexical phrases out of ten



Evidently, the brain seemed to consciously and unconsciously store a number of items from a popular song over time. Thematic analysis (Braun and Clarke, 2006), of *Penny Lane* and *Take a Bow* highlighted that the brain stored content nouns, chunks of language, as well as feelings and emotions attached to each song. For instance, in *Penny Lane* learners retained content words like *corner* or *trim*, but not function words like *a*, *an* and *the*, as in *on the corner* or *for a trim*; furthermore, learners had the gist of the song recorded in clear chunks and had included four of the pre-taught lexical phrases. Moreover, having just listened to the two songs, it seems that the lexical phrases were kept fresh in the learners’ minds, as one or two learners who had failed to produce the phrases in the gap-fill tasks were able to accurately recall them in the post-questionnaires completed straight after. For example, several learners who had failed to reproduce *in summer* and *on the corner* in the *Penny Lane* gap-fill managed to then do so in the post-questionnaires. A number of the other low scoring learners did this too, raising the issue of memory retrieval and how best to access stored knowledge over time. Therefore, it appears that suitable retrieval cues significantly aided recall (Gairns and Redman, 1986); suggesting that information was not permanently lost but ‘misaid’; in other words, ‘the failure is one of retrieval rather than storage’ (Gairns and Redman 1986, p. 89), thus contradicting *decay theory*. In this instance, the content and thematic clues appeared to work better for the recovery of lexical information, despite some natural decay over time. I will comment later on how popular songs could be taught so that they facilitate vocabulary retention.

**Research question 2: Phonological difficulties.**

Learners encountered several phonological complications in *Penny Lane* and *Take a Bow*. Although *Take a Bow* had slightly easier gaps to recall, that is to say one or two words, issues in phonology in both songs still prevailed. Commonly Japanese and Chinese speakers have difficulty with the consonants /l/ and /r/ which perhaps accounts for the misinterpretation of the song title *Penny Lane* as *Penny Rain* /Peɪni: Reɪn/ and *in a play* as *in a pray* /ɪn ə preɪ/; however, these only appeared to be minor issues. Also, some learners had difficulties with minimal pairs, for example, *behind his back* /bæɪk/ was misinterpreted as *behind his bag* /bæg/, and despite the fact that phonologically the sounds *behind his back*

are fairly clear for the learner, the voiced and unvoiced consonants at the end of words, namely /g/ and /k/ presented a challenge. Also, learners' attempts to identify the word boundaries within the lexical phrases in these two popular song lyrics often resulted in several *misinterpretations*, or *mondergreens* (Smith, 2003, p.113).

Additionally, unstressed syllables at the start and end of words in both songs were a challenge for learners, possibly because they were anticipating a different vowel sound. For example, in *Take a Bow* the noun *applause* in the lexical phrase *a round of applause*, it is possible that the learners did not expect or hear the initial schwa /ə/. Learners' answers appeared to contain the consonant /p/ without the vowel in front, for instance *a round of applause* came out as, *a round of proud*, *plant*, *pa*, *p* and replays. This makes 'word stress' an important consideration for classroom pedagogy. Moreover, the weak forms and problems of linking in this phrase made interpretation highly challenging for the learner. For instance, the words *a* and *of* in this lexical phrase are weak forms and so again learners could have been expecting different sounds. The linking of the consonants to vowels in *a round-of-applause* makes it difficult to hear when one word ends and another begins. Learners also experienced problems at the end of words. For instance, in *Penny Lane*, the lexical phrase *from a tray* was retrieved, in most instances, as *from a train* /treɪn/ or *from a try* /traɪ/. This suggested that the learners clearly did not recognise the word ending and so opted for a similar one beginning with the sound /tr/. This indicates that 'unfamiliarity with lexis may lead to what is heard being overruled by the selection of other words which have a definite known meaning' (Smith, 2003, p.119).

Lastly, the effect of stress within the lexical phrases also affected the learners' understanding by compressing sounds between the main stressed syllables, resulting in weak forms, linking, elision and assimilation. It appears that the learners could hear the content words, which tended to receive the stress, but were less likely to hear the weak forms and linking. For example, with the phrase *in the middle of*, the learners were able to identify the content word *middle*, but unable to discern the function words *the*, and *of* which unexpectedly used weak forms /ə/ and /əv/. Also, when words are compressed together it is difficult to hear when one word ends and another one starts, so in this instance the learner might have heard /ɪnðəmɪdʌləv/ which could have been difficult to decode. The effect of unstressed syllables and weak forms is to reduce the perceptual salience of the words in question, which in this context, it is concerned with which part of the word or lexical phrase stands out most to learners (Fiske & Taylor, 2010). Nevertheless, Fiske & Taylor (2010, p.55) state that 'although salience does not reliably enhance the quantity of recall, it does increase the organization and consistency of impressions in several ways'; for example, 'the more attention' the learners pay to the target lexis, 'the more coherent the impression becomes'. In *Penny Lane* and *Take a Bow* function words and lexical phrases with a number of weak forms appear to be less salient.

### **Research question 3: Factors affecting learners' verbal memory.**

There were also several factors, which affected *verbal memory*. Firstly, unsurprisingly, phrases near the beginning of *Penny Lane*, like *on the corner* or *behind his back* or in the chorus, and repeated several times like *in my ears*, were the easiest to verbally recall. Wallace (1994) also found out that, songs with a recurring, basic pattern aid verbal recall.

Moreover, the late positioning, sound, length, number of embedded words and surrounding vocabulary appeared to heighten *verbal memory*, that is, the late positioning and 'confusing sounds' in the final four lexical phrases in *Penny Lane* made retention difficult. Indeed, *play*, *tray* and *trim* because of their similar sounds, could have easily become confused in the Phonological Loop (PL). Moreover, the length of the phrase may have been a factor; *in the middle of* with four constituent parts and *beneath the blue suburban skies* with five, scored highest in the learners' difficulty rating. In addition, within the latter phrase *suburban* there are two embedded words, namely, *sub* and *urban*, which could have also challenged learners. Also, the words *shelter* and *roundabout*, which surround these two phrases, may have been new words for the learners, so understanding and consequently retention could have been impinged upon; thus, these highlighted factors create a useful *verbal memory* checklist for exploiting popular songs.

Additionally, lexical phrases with a previously known lexical item can aid *verbal memory*. Classroom research data revealed that *a standing ovation* was the easiest lexical phrase to recall in *Take a Bow*, as the word *standing* was already known to the learners as the opposite of sitting. The post-questionnaire data asserts that if the learners 'knew the word' and/or 'its meaning' it was more easily recalled. The fact that the word *standing* combined with the word *ovation*, possibly made it, from the learners' perspectives, a highly likeable, easy to imagine and generally useful lexical phrase. Further analysis shows that in *a standing ovation* the syllables and sounds are clear making it an easily accessible phrase. However, collocations and idiomatic phrases in *Take a Bow* such as *a round of applause* and *got caught* did not aid *verbal memory*, but appeared to offer learners a challenge. The post-questionnaire data explained that *applause* was 'a new phrase', or 'unknown' to the learners, making it 'aurally difficult' for them to discern and remember. *You put on quite a show*, *you better hurry up* and *you're the one* were also difficult lexical phrases to retain.

Lastly, songs can create powerful images and 'our memory for [these] is extremely reliable' (Gairns and Redman 1986, p.92). Consequently, having lexical phrases that conjure up good mental pictures appears to aid the visuo-spatial sketchpad and the encoding process. Thematic analysis of the visuals learners' obtained from *Penny Lane* depicts a happy, warm, relaxing and peaceful place, whereas, *Take a Bow* is sad, angry and about a relationship ending. Interestingly, a learner who achieved a near perfect result in *Take a Bow* attributed total success to the fact that the phrases were 'easy to imagine' and closer analysis shows the aural misinterpretations; namely, *plane*, *plant* and *place*, all offer good visual images. Moreover, this song could be considered more current among students, and consequently a more useful and enjoyable language gap-fill lesson. This reiterates the importance of 'personal relevance' and 'youth culture'; that is, we often remember words that capture our own interest and stimulate our thoughts, in other words 'elaborate rehearsal'. This implies that the choice of popular song needs to be personally relevant for learners to identify with it and find it enjoyable.

### **Discussion and pedagogical implications**

#### **A popular song gap-fill as a useful aid in enhancing verbal memory**

This classroom research highlighted two things; firstly, that a popular song gap-fill is a useful aid in the memory retention of grammar and lexis, and secondly that it is an important tool in terms of phonological language learning. Moreover, this research indicated that guidelines on gap-selection are necessary to make the input more memorable. Although gap-filling a popular song is a traditional classroom task, if it is to be a reliable classroom tool for increasing memory retention, guidelines on gap-selection need to be followed; for instance, lexical phrases need to be removed as opposed to individual words, and ideally no more than ten phrases should be taken out, for reasons outlined earlier. Each phrase needs to be a similar length and preferably no longer than four words (or eight syllables), as longer sequences are more difficult to retain, and if possible, phrases should be simple, repeated and include a certain degree of challenge. Moreover, hooks, of one or more words, should be left in order to increase the students' ability to recall them in the future (Gibb, 2007). Phonology, where necessary, should be explicitly taught, to maximise retention, and a memorisation activity, such as describing from memory the people and activities taking place in *Penny Lane*, or re-telling the story in *Take a Bow*, should be incorporated into each gap-fill song activity to increase exposure to form and meaning and give a freer practice rehearsal of the lexical phrases in an authentic context.

#### **Popular songs as a practical tool for enhancing phonology, lexis and grammar**

Additionally, it seems popular songs can be a practical tool for not only identifying phonological errors, but also pre-teaching, rehearsing and revising sounds which are integral to the memory retention of phonological form. Teachers can use songs to help learners retain phonological form by identifying and drawing attention to areas of phonological weakness, pre-teaching sounds, drilling target forms and revising language in a positive and enjoyable way. For instance, a popular song gap-fill could help learners understand the stress in words or lexical phrases, or the function words could be removed from a popular song, so they could practice listening out for them and make a distinction between them and the content words. Additionally, reading aloud, silently mouthing, humming or singing the popular song could make drilling new vocabulary more attractive. Indeed, Ludke, Ferreira and Overy's (2013) recent study offers the first experimental evidence that singing can aid verbal memory. Moreover, it could give learners the confidence to produce chunks of language accurately in controlled practice or reinforce the phonology of the key structures in their minds and could also be used as a revision tool in subsequent lessons; however, the accent of the artist would need to be considered when choosing to drill form. Therefore, as an area for exploration in its own right, the phonology and song relationship has several implications for EFL pedagogy.

Moreover, it appears that the explicit drilling of the lexical phrases during the input stage may make them more salient and allow learners to notice the gaps in their learning. Also, reading aloud, singing, silently mouthing or mumbling song lyrics could also help learners to rehearse and perfect the lexical phrases in a motivating way. Also, this research reinforces the importance of recycling a popular song activity, to ensure that lyrical content is retained over time. For example, using a gap-fill song need not be just a 'one off' task: by using it as a recycling activity in subsequent lessons verbal memory could be enhanced, by providing

learners with a memory strategy for grammar, lexis and phonology in the long-term, but giving worth and value to the activities in the short-term.

Lastly, song gap-fills might enhance memory recall of lexis and grammar. As suggested, popular songs can enhance verbal memory by helping learners to retain, store and retrieve more information than may otherwise be possible, and so could potentially enhance their lexical and grammatical ability more widely. In addition, the memory recall of lexical phrases is especially important as this too increases the learners' retention and recall capacity and familiarity with widely used words. There is a dearth of research in this area and therefore this article serves an important purpose in raising awareness and developing new strategies.

### **Popular songs inspiring 'an emotional memory journey**

Although retention rates inevitably differed according to learner, musical preferences and learning styles; the popular songs aided learners' *verbal memory* and the retention lexical phrases in several ways. Primarily, in terms of SM, the popular songs were a 'motivator' or 'driving force' within the classroom, fostering community and attracting the learners' attention to collocations, target forms and word order. The popular songs not only introduced common/popular language but also culture and appealed to them audibly, visually and emotionally, stressing both its effective and affective qualities. Secondly, they prompted painless review or recycling, thus facilitating WM; for instance, the lexical phrases were repeated several times during the lesson and from the Facebook posting were evidently of interest outside the lesson too. This allowed for the repetition of items necessary for keeping them in the PL and transferring them to the LTM. Additionally, the chunking of lexical phrases within the popular songs appeared to maximise the WM capacity, even if it appeared to aid the memory retention of content words, that is to say, nouns, verbs, adjectives and adverbs over functional words such as articles, conjunctions, prepositions and pronouns. Therefore, to coin phrase that best summed up this memory retention process, I would describe it as 'an emotional memory journey' allowing learners to richly process form and meaning and store lyrical content alongside positive episodic memories.

### **Conclusions**

The review of the literature and the empirical findings of the classroom research study revealed that popular songs aided learners' verbal memory in two distinct areas, lexical phrases and phonological forms. Including memorisation strategies in popular song gap-fills is often overlooked in many educational settings, despite their significance in language learning. Therefore, any methodology or memorisation strategy that can aid memory retention and increase language learning is beneficial for the EFL profession and merits a deeper understanding. Whilst the research findings are validating in and of themselves, further research in this area is needed to determine whether other songs and/or activities are more suitable for developing verbal memory (for example, poetry, drills, memorized role-play), and more studies into the cognitive side of language learning and further research into the role of song as a key tool in unlocking memory are required, as the implications of these findings could be widespread.

Moreover, as a methodology for enhancing verbal memory, popular songs could easily revive old-style rote learning methods. From the learners' perspective the popular tunes

appeared to give pleasurable repetition; therefore, they could be given short tests or quizzes based on the re-playing of song material in subsequent lessons, songs could be changed over time to maintain interest and attractive homework tasks given, but with the speed of technological advances, material would need to remain current (CD, MP3, or YouTube) in order to benefit ELT practice. This classroom research stresses that innovative technology is to be encouraged when using popular songs, such as posting a song on Facebook or playing a song via You Tube or MP3. Anecdotal feedback from learners suggests that any song material which is combined with their mobile phones, laptops, ipods, ipads, itunes or used on data-projectors in the classroom is enthusiastically received and aids their language learning. Therefore, this contemporary issue holds many exciting implications for the long-term use of popular song for aiding verbal memory and the reinstatement of memory and rote learning practices in language learning more generally.

Lastly, the role of memory has long been recognised as crucial in successful language learning and although most of the findings in this research were perhaps fairly predictable, the collected findings indicate that popular songs are a potentially powerful tool for both aiding memory, and for developing verbal memory; however, further research is needed into how it can be framed and developed through the use of songs and other classroom strategies. This article stresses the necessity for popular songs to take a more elevated position within EFL, ESL, EAP and ESP classrooms; as a strategy for enhancing memory through the kind of procedures exemplified in this classroom research study.

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## Songs

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## Appendix 1

### Penny Lane

In \_\_\_\_\_ there is a barber showing photographs.  
Of every head he's had the pleasure to have known  
And all the people that come and go  
Stop and say hello

On \_\_\_\_\_ is a banker with a motorcar  
The little children laugh at him **behind** \_\_\_\_\_  
And the banker never wears a mac...  
In \_\_\_\_\_ rain. Very strange

### Chorus

*Penny Lane is in \_\_\_\_\_ and in my eyes  
There beneath the blue suburban skies  
I sit, and meanwhile back*

In \_\_\_\_\_ there is a fireman with an hourglass.  
And **in** \_\_\_\_\_ is a portrait of the Queen.  
He likes to keep his fire engine clean  
It's a clean machine

Penny Lane is in \_\_\_\_\_ and in my eyes  
Four of fish and finger pies  
**In** \_\_\_\_\_, meanwhile back

Behind the shelter  
**in** \_\_\_\_\_ of a roundabout

A pretty nurse is selling poppies **from** \_\_\_\_\_  
And though she feels as if she's in a play  
She is anyway

## Appendix 2



### Take a Bow

Oh, How about **a round of** \_\_\_\_\_  
Yeah **a** \_\_\_\_\_ **ovation** Oh, Yeah x 4

You look so dumb right now  
Standing outside my house  
Trying to apologize  
You're so ugly when you cry  
Please, **just cut it** \_\_\_\_\_

### Chorus

*Don't tell me you're sorry cause you're not  
Baby when I know you're only sorry **you got** \_\_\_\_\_  
But **you** \_\_\_\_\_ **quite a show**  
Really had me going  
But now **it's** \_\_\_\_\_ **to go**  
Curtain's finally closing  
That was quite a show  
Very entertaining  
But **it's** \_\_\_\_\_ \_\_\_\_\_  
Go on and take a bow*

Grab your clothes and get gone (get gone)  
You **better** \_\_\_\_\_ \_\_\_\_\_  
Before **the sprinklers** \_\_\_\_\_ \_\_\_\_\_  
Talking' bout'  
Girl, I love you, **you're** \_\_\_\_\_ \_\_\_\_\_  
This just looks like a re-run  
Please, what else is on (on)

### Chorus