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**MARLENE SCHWARZ**

Learning with Lady GaGa & Co: Incidental EFL vocabulary acquisition from pop songs

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# *Learning with Lady GaGa & Co:*

# *Incidental EFL vocabulary acquisition from pop songs*

*Marlene Schwarz, Vienna*[*]

## 1. Introduction

Vocabulary learning is a crucial element of foreign language acquisition. However, learning the thousands of words that students need in order to achieve fluency presents a great challenge. It appears inconceivable that vocabulary can be acquired through explicit teaching and studying only and indeed there is a widely-held belief among teachers and researchers that much L2 vocabulary is acquired incidentally (cf. e.g. Milton 2009: 218-219; Hulstijn 2001: 273).

Incidental learning, which Schmidt (1994: 137) first defined as "learning without the intent to learn or the learning of one thing (e.g. grammar) when the learner's primary objective is to do something else (e.g. communicate)", is not an uncontroversial topic, but it seems that foreign language vocabulary acquisition can benefit from activities in which learners take up words as a by-product, similar to the acquisition of their first language (cf. e.g. Wode 1999: 245). Research on incidental vocabulary learning has focused predominantly on reading (cf. e.g. Read 2000: 47; Hulstijn 2003: 362-363), although some experts propose that much vocabulary is acquired by listening, for instance Ellis (1999: 58), who argues that "most vocabulary is

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learnt incidentally, much of it from oral input". Given the popularity of the notion of incidental learning among language teachers and experts, it is astonishing that research on incidental vocabulary acquisition from oral input is relatively scarce. Over the last thirty years few studies have investigated aspects of incidental vocabulary learning from oral input, and those that have differ considerably in their aims and methods. Research projects analysed incidental vocabulary uptake from sources as diverse as stories (Elley 1989; Brown et al. 2008), academic lectures (Vidal 2011), web-delivered lectures (Smidt and Hegelheimer 2004, Lin 2010), teacher talk (Donzelli 2007; Horst 2010), television programmes (d'Ydewalle and van de Poel 1999; Milton 2008; Kuppens 2010) and songs (Medina 1990, Milton 2008), but have not yet led to conclusive results. This study adds to the body of research on incidental vocabulary acquisition by investigating a previously overlooked source of vocabulary learning in EFL contexts: English pop songs.

Pop songs are, in fact, an ideal source for incidental vocabulary learning because teenagers often spend large amounts of their free time listening to music and in particular to pop songs (cf. Murphey 1990: 14), most of which are in English today. In addition, songs combine music and language and there is some general evidence from neuroscientific research (cf. Schön et al. 2008; Kolinsky et al. 2009) that music may indeed enhance language learning. However, few empirical studies have addressed the specific issue of incidental vocabulary acquisition from songs[1], so that language teachers' beliefs (cf. e.g. Medina 1990; Abbott 2002: 10) and anecdotal evidence are the main sources to support such claims. By systematically analysing the belief that vocabulary can be learned from oral input such as pop songs, this paper attempts to approach the issue from an empirical applied linguistics perspective. In addition, it adds an additional focus by investigating incidental vocabulary learning in out-of-school contexts. Given the ubiquity of English language media nowadays, EFL learners' contact with the foreign language outside school is ever increasing. The largest study on the impact of leisure activities on language learning to date found that music media are more popular than any other type of English media among German, French, Belgian and Dutch teenagers (Berns et al. 2007: 112-113). The learning

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[1] In fact, there are only two studies which specifically mention incidental vocabulary learning from songs: Medina (1990), who analysed incidental learning from story songs among Spanish-speaking second-grade students in a school context, and Milton (2008), who carried out a single-subject study with an adult learner of Greek listening to Greek songs in an informal context. To complicate matters further, Milton rejects the notion of 'incidental vocabulary learning' and prefers the term "vocabulary uptake from informal learning tasks" (Milton 2008) (see also section 3). Neither of these two studies, however, investigates mainstream English pop songs. Hence, this study offers a completely new perspective on incidental vocabulary learning from songs, which could potentially add interesting insights to the existing body of research.

opportunities created by such additional language input present a most intriguing phenomenon and as the findings of Berns, de Bot and Hasebrink (2007) (see also section 3) show, music and songs could be of particular interest.

The present article[2], then, reports on an empirical study that explores whether intermediate Austrian EFL learners can acquire vocabulary knowledge incidentally by listening to and engaging with English pop songs outside school. First, some relevant findings on music and language and vocabulary learning in out-of-school contexts are discussed. These indicate that music and language are at least partially integrated in mental processes and representations, and that music and other popular media can indeed have an impact on language learning. Subsequently, difficulties regarding the concept of incidental learning will be addressed and the empirical study will be introduced. Finally, the results will be presented and discussed in the light of previous research findings and their implications for English language teaching and learning.

## 2. Music and language learning

The relation between music and language is the subject of research in a wide interdisciplinary field that has received fresh impetus following advances in brain-imaging methods in the early 1990s (cf. Besson and Friederici 2005: 57). Neuroscientific studies (cf. e.g. Besson et al. 1998; Besson and Schön 2003; Bigand et al. 2001; Bonnel et al. 2001; Groussard et al. 2010; Kolinsky et al. 2009; Patel 2008 & 2012; Peretz 2006 & 2012; Peretz and Coltheart 2003; Poulin-Charonnat et al. 2005; Racette and Peretz 2007; Schön et al. 2005; Schön et al. 2010) which have been carried out since have helped to shed light on the question of whether and to what extent music and language are integrated cognitively in the human brain. Before outlining these results, however, a brief discussion of why music should be studied in relation to language and language learning will be provided.

On the surface, music and language appear to be rather similar because they share a number of features on the structural level: both consist of sounds and make use of rhythm, pitch, volume, stress and pauses (cf. e.g. Fonseca Mora 2000: 147; Lowe 2007: 5). In addition, experts argue that from an evolutionary point of view music and language might have a partly common origin (cf. Molino 2000; Wallin et al. 2000). The two domains also seem to

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2 This article is a condensed and adapted version of my MA thesis (Schwarz 2012), which was written at the Department of English of the University of Vienna under the supervision of Prof. Ute Smit.

develop in analogous ways in early childhood; studies by Saffran (2003a & 2003b) indicate important parallels in the ways music and language are learned by infants. Such structural and evolutionary similarities between music and language might not seem surprising, but there are also fundamental differences. The most conspicuous is their different functions in terms of communication: language commonly expresses propositional meaning, whereas music can only convey more subtle meanings such as emotions or affect (cf. Jackendoff 2009: 197; Slvec and Patel 2011). Additionally, they also differ structurally beneath the surface level in terms of pitch, rhythm and syntax[3] (cf. Jackendoff 2009; Patel 2008). In summary, the relation between music and language is highly complex indeed and can be analysed on a variety of different levels with regard to structural, evolutionary and functional properties.

Discussions of parallels and differences between these two domains have led to the question of how music and language are represented in the human brain: whether they are integrated cognitively or whether they are represented autonomously in specific domains.[4] Adherents of the autonomous view argue that language and music are mainly processed in specialized mental modules which are domain-specific and that the two domains, or at least components of these, are thus processed independently of each other in the brain (cf. e.g. Peretz 2006: 8-14 & 2012: 264). In contrast, proponents of the integrated view posit that music and language are at least partly integrated in mental representations and that they make at least partial use of shared mechanisms (cf. e.g. Patel 2008: 4). Songs are an especially interesting subject for neuroscientific research in the integrated versus autonomous debate because they present an intricate combination of texts and tunes. So far, empirical studies of song perception have produced mixed results (cf. Schön et al. 2005: 73; Schön et al. 2010: 450), but in the latest studies the evidence for integrated representations of music and language in song processing seems to outweigh the support for autonomous modules (cf. e.g. Besson et al. 1998; Bonnel et al. 2001; Bigand et al. 2001; Poulin-Charronnat et al. 2005). Similarly, a study by Peretz, Radeau and Arguin (2004), which used a musical priming technique, found that text and tune also interact in

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3 Musical pitch and linguistic intonation are organized very differently, for instance. In addition, musical beat is typically isochronous and periodic, while linguistic rhythm is not, although it uses a metrical structure as well. Finally, comparisons of musical and linguistic syntax have shown that although both combine discrete elements into hierarchically structured sequences, music has no counterpart to crucial linguistic features such as linear order or affixation (cf. Jackendoff 2009; Patel 2008).

4 This discussion of the modularity or non-modularity of music goes back to claims about the modularity of language in the context of generative grammar theory (Besson and Schön 2003: 275), which maintained that language is autonomous from other cognitive functions, a view that has subsequently also been applied to music.

song memory and that both song components may trigger recall of the respective other component. The consequences for language learning and teaching seem rather obvious: if music and language should indeed be integrated cognitively, if only partially, then music could act as an important tool in language learning, in particular for storing and retrieving verbal information.

In addition, other studies have shown more specific benefits of music for language learning while investigating the so-called 'Mozart effect' (Rauscher et al. 1993), i.e. beliefs that music may have beneficial side-effects on general cognitive skills (cf. e.g. Schellenberg 2006). Most recently, Schön et al. (2008) and Kolinsky et al. (2009) found that music enhances the comprehension of verbal information. Both studies show that receiving language input in combination with a melody aids speech segmentation and that consistent mapping of linguistic and musical information can support the learning process. These findings indicate that learning a new language, especially in the first learning phase wherein one needs to segment new words, may largely benefit of [sic] the motivational and structuring properties of music in song. (Schön et al. 2008: 975)

However, not only does music facilitate comprehension, it also promotes long-term retention in the memory. Many adults have experienced that a well-known melody from childhood can immediately bring the corresponding lyrics to mind; an experience for which Wallace (1994), McElhinney and Annett (1996) and Rainey and Larsen (2002) all found experimental support. Wallace (1994) and McElhinney and Annett (1996) conducted studies with previously unknown songs, which showed that the lyrics were retained better in immediate and delayed post-tests if participants were presented with the songs rather than spoken versions of the lyrics. Rainey and Larsen (2002) found that lists of unconnected names were also remembered better if presented sung to a familiar melody rather than in a visual or spoken form. Of course, characteristics of the listeners and the carrier melody need to be taken into account, but these studies provide evidence that musical stimuli may indeed aid the recall of corresponding texts.

In short, there is some neuroscientific evidence that music and language are at least partially integrated in song processing and song memory, a fact that will be exploited in the present study. Music and songs may aid language learning because they facilitate verbal comprehension and help to store texts in long-term memory. Moreover, they have great motivational value in the language classroom and provide conversational language input in relatively simple, repetitive structures (cf. e.g. Murphey 1990; Abbott 2002; Ludke

2009). This research project is, however, not concerned with the benefits of music for language learning in formal educational settings, but with the opportunities created by adolescents' engagement with music in out-of-school contexts.

## 3. Incidental vocabulary acquisition in out-of-school contexts

Nowadays exposure to English in traditional EFL countries such as Austria is clearly not limited to school contexts anymore and thus students can potentially 'pick up' new words quite easily in many different situations of daily life. Scholars have been arguing for decades about how to describe this kind of learning. Different labels such as 'incidental learning' (Schmidt 1994; Hulstijn 2003), 'unplanned learning' (Kerka 2000) or 'informal learning' (Milton 2008) have been used, but so far no general consensus has been reached. For reasons given below, I have chosen the term 'incidental vocabulary learning' to describe the learning processes outside school that are being investigated in this study; yet this could be viewed as problematic since "there is some confusion over exactly what incidental learning is" (Milton 2008: 228). Therefore this section attempts to clarify what the term means in the context of the present study and why it is regarded as an appropriate label for the learning processes in question.

Incidental learning is a notoriously vague theoretical concept which has become associated with several different meanings over time. Historically, it referred to a methodological criterion in psychological experiments of the stimulus-response era, namely to "the presence or absence of an explicit instruction to learn" (Hulstijn 2003: 354). Hence, in studies on intentional learning participants were told beforehand that they would be tested after the experiment, while in studies on incidental learning participants were not forewarned. Subsequently, the term was adopted for SLA research but because of its origin as a research design feature and the concomitant lack of a precise definition it has been adapted to fit different theoretical stances. Nowadays, the term incidental learning is associated with three different notions of learning. Hulstijn (2003: 357-358, based on Schmidt 1994: 137) distinguishes between incidental learning as "learning without the intent to learn" as the most general meaning of the term, "learning of one stimulus aspect while paying attention to another stimulus aspect" as a second possibility and "learning of formal features through a focus of attention on semantic features" as the most specific definition. The first of these

definitions is very broad and simply puts incidental learning in contrast to intentional learning, thus equating 'incidental' with 'unintentional' (cf. e.g. Rieder 2003: 28). The second of Hulstijn's definitions is frequently expressed as the learning of language aspects as a 'by-product' of other, often communicative, activities or as 'picking up' formal features in the course of such activities (cf. Huckin and Coady 1999: 182; Wesche and Paribakht 1999: 176; Schmitt 2000: 120). This meaning of incidental learning seems to be the most common within the literature on vocabulary acquisition, whereas the third definition relates most obviously to L2 grammar acquisition.

The simultaneous use of all three of these meanings of the term incidental learning in SLA has led to the state of confusion that Milton (2008) refers to. But to complicate matters even further, experts also disagree about the role of attention and consciousness in incidental learning (cf. Huckin and Coady 1999: 190; Gass 1999: 320; Read 2000: 44; Rieder 2003: 26; Hulstijn 2003: 361) and thus about the question in how far incidental learning can be differentiated from other notions like 'implicit learning' or 'intentional learning'. An attempt to solve this dilemma is to conceptualize incidental learning as "unintentional or unplanned learning" (cf. Kerka 2000: 3), although Milton (2008: 228-229) contends that these terms actually denote two very different concepts:

> *Unplanned learning may involve the deliberate intention to learn even if the activity involved is not part of a formal syllabus or curriculum; listening to a song and trying to memorise the words, for example.5 Unintentional learning implies that something can be learned without really trying and without effort. [...] I would expect learning that is unintentional or incidental to be less successful than learning that is intentional but unplanned.*

Milton (2008) thus argues that unplanned learning is different from incidental learning in the sense of natural, effortless learning, but it could also be regarded as yet another definition for the term incidental learning as implied by Kerka (2000). Unplanned learning can certainly involve different levels of intention and attention, but in an unplanned learning situation learners are by definition not forced to focus on a specific aspect and hence their main purpose may well be some other than learning. As a consequence, I would argue that although unintentional and unplanned learning can be considered two different theoretical notions, in practice they overlap to a great extent in

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5 One may comment that the fact that a learning activity is not part of a formal syllabus or curriculum does not automatically mean that it has not been planned by the learner. In fact, self-directed learning can sometimes by highly organized and planned, even if it is the learner who does the planning and not a teacher or an educational institution. Moreover, the studies reported in Milton (2008) actually seem to involve quite a lot of planned learning because they include regular tests and strict regulations about the exposure to foreign language input.

many situations, especially outside formal educational contexts, and can thus both be viewed as descriptions of incidental learning.

In the case of the empirical study presented in this article all of the definitions mentioned above are in some way suitable. Learning English vocabulary from pop songs in out-of-school contexts is typically unplanned, but it is also the by-product of another activity, like listening to a song, trying to understand its content or singing along with it. Additionally, such learning is most probably also unintentional for many learners because their primary purpose will hardly be learning vocabulary but rather enjoying the music. Furthermore, I would claim, in accordance with Hulstijn (2003: 361) and Rieder (2003: 28), that incidental learning is not unconscious or without attention and can involve both implicit and explicit cognitive learning processes. In brief, in this article incidental vocabulary acquisition from pop songs outside school is considered to be the by-product of listening to and engaging with songs and the outcome of unplanned and largely unintentional learning situations because of the lack of explicit learning goals.

Few research projects have actually investigated incidental vocabulary acquisition in out-of school contexts. There are several studies in formal educational settings (cf. e.g. Elley 1989; Feitelson et al. 1993; Brown et al. 2008; Donzelli 2007; Horst 2010; Vidal 2003 & 2011), but only a handful of researchers have looked at teenagers' leisure time. Berns, de Bot and Hasebrink (2007) have conducted the largest study so far, assessing access to different sources of out-of-school English input and their popularity among adolescents in Germany, France, Belgium and the Netherlands. They found that English is omnipresent in the lives of young Europeans and although the relative importance of different popular media varies between countries, English music media are a common denominator and are frequently used by teenagers in all four countries (Berns et al. 2007: 112-113). Their figures show that students in all countries spend nearly two hours a day listening to music and that the majority of the songs young people listen to are in English. These findings lead the authors to the following conclusion:

> *The general tendency is that students listen to English songs a lot, and attach some importance to their lyrics. As a source of English input, the quantity of input is considerable. (Berns et al. 2007: 59)*

In addition, a study in Finland (Ranta 2010) and two questionnaire studies in Germany (Grau 2009; Summer 2010) also indicate that music is the most frequent source of English outside school. Interestingly, both Grau (2009: 171) and Ranta (2010: 175) also found that there is an apparent division between 'school English' and 'real-world English' in the minds of both

teachers and learners and that formal English teaching is not notably influenced by out-of-school language input. Grau (2009: 171) concludes that

> *many teachers do not seem to take their students' free-time involvement with English language texts seriously, neither as a potential context for learning English nor as a relevant activity they could contribute to by providing students with listening and viewing strategies in class.*

Further research projects show, however, that foreign language exposure outside school does have an effect on students' language skills. Findings on the relation between students' attitude towards song lyrics and their English skills in the large-scale project of Berns, de Bot and Hasebrink (2007: 102-109) point to a general beneficial influence of English songs, but another study offers even more conclusive insights. Verspoor, de Bot and van Rein (2011) investigated the difference between media and non-media groups in monolingual and bilingual education in the Netherlands.[6] Their study showed that in general, students in the bilingual groups outperform their peers in writing tests and lexical tests, but a clear impact of media exposure in out-of-school contexts was also found. The effects of exposure to popular media changed over time and it appeared that productive writing skills benefited earlier from it than receptive vocabulary skills (Verspoor et al. 2011: 162). In the non-media groups the lack of additional out-of-school input especially influenced students' motivation and attitude towards English, but also their developing language skills. The authors thus conclude that "out of school contact with English is crucial for the development of proficiency" (Verspoor et al. 2011: 165).

The research evidence on the impact of out-of-school English input that is available so far thus indicates that music and other media may play a crucial role in providing students with learning opportunities and that their English skills can indeed benefit from such additional exposure. Concerning incidental vocabulary acquisition, pop songs could be an especially well suited source for learning because they are short texts that contain simple conversational language (cf. Murphey 1990: 231-232). The question of whether teenagers can, in fact, pick up vocabulary while listening to English pop songs is the focus of the empirical study, which will be introduced below.

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6 The participants in the two non-media groups belong to Dutch Reformed groups, which limit exposure to TV, radio and the internet because of religious reasons. These students are therefore exposed to very little English outside school (Verspoor et al. 2011: 151) and can act as a genuine control group.

# 4. Methodology and research design

The aim of the present study is to address the following question:

- Question 1: "Do Austrian EFL learners of intermediate proficiency acquire passive vocabulary knowledge incidentally by listening to and engaging with English pop songs outside school?"

This main research question was supplemented by two further questions, which are more exploratory in nature:

- Question 2: "Which factors influence the incidental acquisition of vocabulary from pop songs?"
- Question 3: "Which conclusions for English language learning and teaching can be drawn from the findings?"

However, since a full discussion of all three aspects would exceed the space available in this paper, the article primarily focuses on the main research question with a brief discussion of the implications for English language learning and teaching at the end.[7]

To ascertain whether EFL learners acquire vocabulary knowledge incidentally by listening to English pop songs outside school, a mixed methods approach (cf. Dörnyei 2007: 44) was used. The study combines a lexical analysis of pop song lyrics, a survey and a quasi-experiment using a repeated-measures design. The experimental procedure is the primary component of the research design, whereas the lexical analysis was mainly used in the materials design process and the information gathered in the survey supplements the experimental data. However, due to practical constraints a true experimental design was infeasible and I thus opted for a quasi-experiment (Cohen et al. 2011: 316) with a pre-test–post-test repeated measures design with one dependent variable (vocabulary knowledge).

According to Cohen, Manion and Morrison's (2011: 316) definition true experimental designs have several key features such as control groups, random allocation to experimental groups and control groups, pre- and post-tests, interventions to the experimental groups and isolation and control of independent variables. If a given experiment does not possess all of these characteristics, as is the case in the present study, then Cohen, Manion and Morrison (2011: 316) classify it as a 'quasi-experiment'. Quasi-experiments are relatively common in educational research because due to practical limitations random assignment of schools or classrooms is often impossible,

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7 For a full discussion of all aspects of the research project see Schwarz (2012).

for instance (cf. Cohen et al 2011: 322). In the case of the present study there are two features which mark the research design as quasi-experimental: the lack of randomization and the lack of a control group. Random selection of schools and classes therein was problematic for reasons of access to schools and the omission of a control group can be explained by the fact that it was virtually impossible to find a comparable group of participants that did not have access to English pop songs outside school in Austria. These two factors, the lack of full randomization and of a control group, evidently led to certain limitations of the study which need to be borne in mind in the interpretation of the data.

Moreover, the quasi-experimental procedure employed in this study is a variant of a cued or primed recall experiment (cf. Seel 2012: 868). Since it is concerned with incidental acquisition of vocabulary in out-of-school contexts, the learning phase had to take place outside school prior to the experiment. Hence, the intervention in the quasi-experiment only attempts to trigger the potential results of previous incidental learning from songs using a musical cue or prime to activate any such acquired lexical knowledge. 'Priming' refers to the facilitated mental processing of a stimulus because of the nature of the stimulus preceding it (cf. e.g. Balota 1994). Peretz et al. (2004: 143) state that "[p]riming is generally defined as a modification in performance due to the prior processing of an item that is related to the target". This means that the processing of one stimulus, the prime, affects the subsequent processing of a related second stimulus, the target, in either a positive or negative way. At least two previous studies (Koelsch et al. 2004; Peretz et al. 2004) have shown that short musical extracts can act as primes for verbal information and it is this musical priming effect that is also exploited in the present study. To trigger incidentally acquired word knowledge during the post-test phase, musical stimuli from the pop songs in which the target words occur were used as primes; however, these extracts did not contain the target words themselves. The musical primes are presumed to cue the retrieval of the semantic meaning of lexical target items because text and tune were heard together many times and are therefore at least partially integrated in memory (see section 2).

The quasi-experimental procedure used in this study then consisted of a vocabulary pre-test, a questionnaire to elicit background information about the participants and their habits of music consumption, and a vocabulary post-test with the intervention of musical primes. Table 1 briefly summarizes the chronological sequence of all activities included in an experimental session.

**Table 1 Summary of experimental procedure**

| Time (50') | Activity | Comments |
|---|---|---|
| 3' | Preparation, introduction, distribution of booklets | |
| 7' | Instructions + possible questions | |
| 8' | Pre-test | 30 seconds per item (=14x30 sec) |
| 2' | Instructions + possible questions | |
| 13' | Questionnaire | |
| 2' | Instructions + possible questions | |
| 13' | Post-test | 30 seconds per item + 30 seconds per song (=14x30 sec + 10x30 sec) |
| 2' | Collection of booklets & conclusion | |

74 Austrian students from four classes in two different school types, a 'Hauptschule' (HS, secondary modern school) and a 'Gymnasium' (AHS, grammar school), in Upper Austria participated in this research project. The study comprised two classes in each school to provide for comparable results (N HS=36, N AHS=38). All participants attended the eighth grade and were about to finish lower secondary school at the end of the school year. The ages of the 36 males and 38 females ranged from 13 to 15 years, as could be expected at this grade level. The large majority (82.4%) gave German or Austrian German as their native language, while the L1s of the remaining students (17.6%) were very diverse, with the largest group being Bosnian (9.5%) and others speaking Albanian, Armenian, Croatian, Thai or Turkish; however, there were no native speakers of English. Since random allocation to experimental groups was not possible for practical reasons, the students had to be tested in four separate groups; hence four experimental sessions were carried out. The sessions lasted for 50 minutes each and were conducted during lesson time. To ensure equal conditions for all, the timing (see Table 1) was kept the same across groups: students were only presented with one item at a time and they were only allowed to turn the page when they heard a bell signal.

The materials, the vocabulary tests for the quasi-experiment and the questionnaire for the survey, were designed specifically for this study in a rather complex process beginning with the lexical analysis of potential target words. Possible target words had to occur in current pop songs and could not have been taught explicitly at school, since words fulfilling these criteria should then be available for incidental vocabulary learning from pop songs in out-of-school contexts. In order to find possible target words two corpora were compiled: one containing the vocabulary lists of the English course

books The New You & Me (Gerngross et al. 2009) and More! (Gerngross et al. 2007-2010), which were used in the two schools participating in the study, and the other containing the lyrics of popular chart songs at the time.[8] The corpora were then analysed and compared using the corpus analysis programmes AntConc (Anthony 2011) and AntWordProfiler (Anthony 2009). As a result, a first list of possible target words was established to which other selection criteria, such as frequency of occurrence, salience in the song and level of comprehensibility, were applied subsequently. Potential target words had to be repeated at least twice in a given pop song, be clearly perceptible over the melody and occur in a prominent part of the song such as the chorus or pre-chorus. After the completion of these analyses a list of 20 words in 13 songs was still available and these were presented to the English teachers of the four experimental classes to check whether they had taught any of them in class. In a next step the primes for the pilot study were chosen with care being taken to ensure that target words did not occur in the primes.

Parallel to the design of the vocabulary test, a questionnaire for the survey was developed. Its main purpose was to collect data concerning students' habits of music consumption and attention to song lyrics. The questionnaire items were modelled on examples taken from the questionnaires by Grau (2009), Berns et al. (2007) and Seregély (2008), but also incorporated additional aspects. Following the conventions of mixed methods research, it combined closed items and open questions, and for reasons of comprehensibility all items were presented in German.

Piloting in a Viennese grammar school showed that the experimental procedure was viable and that the materials were understandable to students. Yet, it also highlighted potential problems so that minor changes to the questionnaire and the list of target words were made. The final list of target words (see Table 2) contained 14 items occurring in 10 pop songs which had been in the charts for at least 9 weeks at the time of the main study; thus ensuring sufficient time for songs to reach a high level of familiarity among students and for learning outside school to take place.

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8 All songs occurring in the top 15 of the Austria Top 40 charts between August and October 2011 were considered in the analysis or systematically excluded from it because they were not in English or contained derogatory language. The experimental sessions were then conducted in January 2012. The selection of the top 15 and the time span between song selection and the experimental sessions helped to ensure participants' familiarity with the songs and increased the likelihood of incidental vocabulary learning. For further information on the operationalization of pop songs as 'songs in the charts' see Schwarz (2012: 53-54).

**Table 2 List of final target words to be used in pre- and post-test**

| Item | Word | Song |
|------|------|------|
| 1 | a blade | Grenade (Bruno Mars) |
| 2 | to toss | Grenade (Bruno Mars) |
| 3 | a clover | I'm Into You (Jennifer Lopez feat. Lil Wayne) |
| 4 | a blur | Last Friday Night (Katy Perry) |
| 5 | screwed | Last Friday Night (Katy Perry) |
| 6 | to skip | Heart Skips A Beat (Olly Murs ft. Rizzle Kicks) |
| 7 | a price tag | Price Tag (Jessie J feat B.o.B.) |
| 8 | breathless | Rolling In The Deep (Adele) |
| 9 | a scar | Rolling In The Deep (Adele) |
| 10 | an edge | The Edge of Glory (Lady GaGa) |
| 11 | a tone | The Lazy Song (Bruno Mars) |
| 12 | bulletproof | Titanium (David Guetta feat. Sia) |
| 13 | to ricochet | Titanium (David Guetta feat. Sia) |
| 14 | to deny | We Found Love (Rihanna feat. Calvin Harris) |

In the experimental sessions the 14 target words were presented to the students using the Vocabulary Knowledge Scale (VKS) by Paribakht and Wesche (1997). The VKS was originally developed in 1993 for research on incidental vocabulary acquisition from reading and thus had to be slightly adapted for the present purposes.

| Wort | |
|---|---|
| A | Ich kann mich nicht erinnern, dieses Wort schon einmal gehört oder gesehen zu haben. |
| B | Ich habe dieses Wort schon einmal gehört oder gesehen, aber ich weiß nicht, was es bedeutet. |
| C | Ich habe dieses Wort schon einmal gehört oder gesehen und ich <u>glaube</u> es bedeutet: _____ |
| D | Ich kenne dieses Wort. Es bedeutet: _____ |
| E | Ich kann dieses Wort auch in einem Satz verwenden: _____ _____ *Wenn du hier einen Satz schreibst, fülle bitte auch Kategorie D gleich darüber aus.* |

**Figure 1 Adapted Vocabulary Knowledge Scale used in the present study[9]**

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9 Translation of Figure 1: Target word / A: I don't remember having seen or heard this word before. / B: I have seen or heard this word before, but I don't know what it means. / C: I have seen or heard this word

As can be seen in Figure 1, learners were presented with five categories and asked to rate their knowledge of a specific lexical item on the resulting 5-point scale. Although the instrument mainly relies on self-report data, the learners also have to provide evidence for their claims from category C onwards by giving translations or synonyms or by using the lexical item productively.

The same 14 vocabulary items containing the target words were used in the pre- and post-test with the crucial difference that in the post-test phase the students heard the prime, an extract of the respective pop song, just before filling in the VKS. While students listened to the prime they were presented with 'song items' to gather data on students' familiarity with the songs. As can be seen from Figure 2, a format similar to the VKS was chosen for these items and students also had to provide evidence for their familiarity in category C.

| Kennst du diesen Song? | |
| --- | --- |
| A | Ich habe dieses Lied noch nie gehört. |
| B | Ich kenne dieses Lied, aber ich weiß nicht wie es heißt |
| C | Ich kenne diese Lied, es heißt _____ und ist von _____ |
| Magst du diesen Song? | |
| ☐ Ja, sehr gerne. ☐ Geht so. | ☐ Ja, gerne. ☐ Nein, gar nicht. |

**Figure 2 Song item used in the post-test[10]**

All the materials for the experimental sessions were combined in a test booklet. It contained 14 VKS items for the vocabulary pre-test, the questionnaire and 14 VKS items as well as the song items for the vocabulary post-test. Following the completion of the four experimental sessions in January 2012 the data were analysed in several steps. First of all, all vocabulary pre- and post-tests were scored using a scoring scheme based on the original VKS scheme by Paribakht and Wesche (1997: 181). However, taking up considerations voiced by Vidal (2011) and Seregély (2008) the original scoring scheme was refined and extended to incorporate all

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before and I think it means _____. / D: I know this word. It means _____ /
E: I can use this word in a sentence: _____. If you write a sentence in this section, please also fill in category D just above.
10 Translation of Figure 2: Do you know this song? / A: I have never heard this song before. / B: I know this song, but I don't know its title. / C: I know this song. Its title is _____ and it is sung by ____. / Do you like this song? / Yes, I like it a lot. / Yes, I like it. / It's okay. / No, not at all.

possibilities occurring in the present study (see Table 7 in the appendix). Following Vidal (2011) I also introduced half-point steps to differentiate between incorrect (2 points) and partially correct or vague answers (2.5 points) and between participants' belief (3 points) and certainty of knowing a word (3.5 points).

Table 7 (see appendix) gives an overview of all scoring categories and also describes problematic cases such as a productive example in category E without a translation in category D. In general, unfamiliar words (category A) are awarded 1 point (cf. Paribakht and Wesche 1997: 181) and partially unfamiliar words (category B) 2 points. Vague recognition (category C/D) receives 2.5 points, partial recognition (category C) 3 points, and total recognition (category D) 3.5 points. In category E, total recognition and partially correct or ambiguous word use is scored with 4 points and total recognition and correct, unambiguous word use with the maximum of 5 points.

For statistical purposes, knowing a word was defined as receiving a score of 3, which corresponds to a correct answer in category C of the Vocabulary Knowledge Scale as students demonstrate knowledge of the semantic meaning by providing either a translation or a synonym.11 After these initial steps of data preparation, the quantitative data was analysed using frequency counts and statistical measures in SPSS (SPSS Inc. 2010).

In addition, answers to closed questionnaire items were coded numerically, while responses to open questions were collected for qualitative analysis. Qualitative data from the vocabulary tests was subjected to close scrutiny through analysis of errors and sentence production, while responses to the questionnaire were examined through content analysis. In the tradition of mixed methods research (cf. Dörnyei 2007: 163-173), both quantitative and qualitative methods were applied at each stage of analysis. As a consequence, the results of the different analyses support and complement each other and may thus provide more detailed insights.

# 5. Presentation and discussion of results

The first research question of this research project asks whether incidental vocabulary acquisition from pop songs in out-of-school contexts actually occurs: *"Do Austrian EFL learners of intermediate proficiency acquire passive vocabulary knowledge incidentally by listening to and engaging with*

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11 For a discussion of how 'knowing a word' can be defined and a critical appraisal of issues with the VKS in this respect see Schwarz (2012: 15-17 and 71-72).

*English pop songs outside school?"* This question actually entails two propositions, namely that Austrian students listen to English pop songs outside school and that they incidentally learn vocabulary from these. These two aspects are rendered explicit in a preparatory hypothesis, which states that intermediate Austrian EFL learners listen to English pop songs outside school, and the main hypothesis of this study:

> *Intermediate Austrian EFL learners who listen to and engage with English pop songs and their lyrics outside school will be able to translate or provide synonyms for English lexical items which they have not been taught but which occur in English pop songs.*

It was the main purpose of the questionnaire survey to investigate the preparatory hypothesis and to establish whether incidental vocabulary acquisition from pop songs is a realistic concept in the Austrian context. Data provided by the 74 participating students on their habits of music consumption shows that all of them (100%) like listening to music and that they spend a substantial amount of their free time doing so. The great majority of students (87.8%) stated that they listen to music almost every day and more than half (51.4%) claimed that they spend more than one hour doing so every day. In addition, it was found that English is clearly the language that students listen to most often with 91.9% indicating it as the most frequent language of songs. These figures emphasize the importance of music in teenagers' lives in accordance with the findings of previous surveys (cf. e.g. Berns et al. 2007; Summer 2010) and underline the fact that English songs are a major source of language input for students nowadays. More importantly, however, the outcomes of the questionnaire show that the prerequisites for incidental out-of-school vocabulary acquisition are fulfilled and thus the preparatory hypothesis is supported by the data.

The hypotheses of the study were tested by applying statistical measures to the data of the quasi-experiment after formulating corresponding null hypotheses for each of the statistical tests. To investigate the main hypothesis the participants' overall performances in the pre- and post-test of the quasi-experiment were compared. Since the data did not show normal distribution, a Wilcoxon signed ranks test was conducted to determine whether there was a difference between the two results of the tests. The results (see Table 3) showed that the mean post-test score was significantly higher than the mean pre-test score. Thus, there was a statistically significant difference between students' performance on the vocabulary pre- and post-tests and the magnitude of the effect was large (r=0.51) (cf. Larson-Hall 2010: 114-120).

**Table 3 Results from the Wilcoxon signed ranks test**
**comparing the overall pre- and post-test scores**

|  | M | SD | Wilcoxon test | |
|---|---|---|---|---|
|  |  |  | Z | r |
| Pre-test | 25.912 | 5.467 | -2.026** | 0,51 |
| Post-test | 27.662 | 5.914 |  |  |
| ** p<.001 | | | | |

In addition, several analyses of more specific aspects were carried out, for instance a comparison of the difference between mean pre- and post-test scores for each individual item. The findings of the individual tests presented in Table 4 seem to indicate that the differences between the results of the pre- and the post-test concern item 1 a blade, item 2 to toss, item 3 a clover, item 4 a blur and item 13 to ricochet, as they are the only ones that show statistically significant differences.

**Table 4 Results from the Wilcoxon signed ranks tests comparing**
**pre- and post-test scores for all individual items**

|  | Pre M | SD | Post M | SD | Wilcoxon tests | | |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  | Z | r | N |
| **1 a blade** | 1.872 | .8800 | 2.061 | .0894 | -2.503* | 0.42 | 74 |
| **2 to toss** | 1.438 | .7635 | 1.801 | .7488 | -4.564** | 0.81 | 73 |
| **3 a clover** | 1.595 | .4943 | 1.838 | .3711 | -1.987* | 0.32 | 73 |
| **4 a blur** | 1.446 | .5005 | 1.595 | .4943 | -2.117* | 0.41 | 74 |
| 5 screwed | 1.703 | .5422 | 1.784 | .5040 | -1.225 | 0.25 | 74 |
| 6 to skip | 2.568 | .9586 | 2.596 | 1.1201 | -.542 | 0.14 | 73 |
| 7 a price tag | 2.203 | .8558 | 2.277 | .9405 | -1.316 | 0.35 | 74 |
| 8 breathless | 2.493 | 1.0932 | 2.507 | 1.0614 | -.140 | 0.03 | 74 |
| 9 a scar | 1.885 | .7788 | 1.885 | .7428 | .000 | 0.00 | 74 |
| 10 an edge | 1.804 | .6128 | 1.912 | .5450 | -1.886 | 0.44 | 74 |
| 11 a tone | 2.205 | .9273 | 2.260 | .8980 | -.595 | 0.10 | 73 |
| 12 bulletproof | 2.082 | 1.0802 | 2.151 | .9849 | -1.213 | 0.32 | 73 |
| **13 to ricochet** | 1.189 | .4875 | 1.405 | .5714 | -3.411* | 0.73 | 74 |
| 14 to deny | 1.514 | .6024 | 1.628 | .6414 | -1.318 | 0.23 | 74 |
| * p<.005, ** p<.001 | | | | | | | |

However, a closer inspection of the figures reveals that the differences between pre- and post-test scores for these items could be due to particularities of the scoring categories of the VKS. The first two categories on the Vocabulary Knowledge Scale are category A "I do not remember having seen or heard this word before", which is accorded a score of 1, and B

"I remember having heard or seen this word before, but I do not know what it means", which is represented by a score of 2 (see appendix). The second, more detailed examination of the results found that the statistically significant differences for the items mentioned above are almost certainly due to a relatively large increase in scores 2 (see Table 5, and Table 8 in the appendix). This presents a highly problematic finding because it means that many participants claimed that they had seen or heard a word before in the post-test after having marked it as completely unknown in the pre-test. Consequently, the gain in scores 2 could either be an influence of the testing methodology because the same vocabulary test was presented as pre- and post-test within a relatively short period of time, or of the musical primes. While the first case would constitute a Type I error because the null hypothesis has been rejected although it is in fact true (cf. Cohen et al. 2011: 184), the latter would be a desirable result of the employed priming methodology. Evidently, the possibility of a Type I error does not only affect the results concerning individual items, but also the overall outcome of the study and thus poses a threat to its validity.

**Table 5 Distribution of participants' scores over all scoring categories for original scores**

| Distribution of original scores (mean scores across all 14 target words) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-test | | | | | | | Post-test | | | | | |
| | 1 | 2 | 2,5 | 3 | 3,5 | 4 | 5 | 1 | 2 | 2,5 | 3 | 3,5 | 4 | 5 |
| Mean | 25.7 | 39.4 | 0.57 | 2.43 | 1.79 | 1.86 | 2 | 17.9 | 46.5 | 0.71 | 3.14 | 1.29 | 2.21 | 2.14 |

In order to investigate this issue further and to avoid biasing the results, the dataset was recoded; the problematic scores of 1 and 2 were merged (see Table 6). The rationale behind this step was that if all scores of 1 and 2 were recoded as score 2, application of statistical difference testing should be able to shed light on the problem: if the tests still showed statistical significance, the overall validity of the study would not be threatened; but if they did not, the observed results might indeed have been an effect of the methodology used.

**Table 6 Distribution of participants' scores over all scoring categories for recoded scores**

| Distribution of recoded scores (mean scores across all 14 target words) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre-test | | | | | | Post-test | | | | |
| | 2 | 2,5 | 3 | 3,5 | 4 | 5 | 2 | 2,5 | 3 | 3,5 | 4 | 5 |
| Mean | 65.1 | 0.57 | 2.43 | 1.79 | 1.86 | 2 | 64.4 | 0.71 | 3.14 | 1.29 | 2.21 | 2.14 |

A Wilcoxon signed ranks test was applied to the recoded data and revealed that the difference between overall pre- and post-test results still reached statistical significance (Z=-2.026, p=0.043, r=0.2), although the level of statistical significance was much lower and the size of the effect only about half as large as before. Nonetheless, this analysis shows that the observed results were not an effect of the research methodology and provides important evidence for the validity of the study. It can thus be concluded that the participating students recalled the semantic meaning of the target words significantly better with the help of musical stimuli, which points to the fact that they originally acquired the words from the pop songs.

This finding is also supported by the outcomes of the qualitative analysis, which focused on examples of the students' language production in the quasi-experiment. In category E of the VKS students were asked to use the target word productively in a sentence and all instances of sentence production were recorded separately for analysis. A close examination of this list showed that seven students (9.46%) clearly referred to the song lyrics already in the pre-test although at that time pop songs had not been mentioned at all.[12] Three students quoted the lyrics of the respective pop songs and were able to correctly translate the target word, while four other students reproduced the lyrics, but gave wrong translations, most probably due to wrong inferences from the song texts. In any case, the fact that nearly 10% of the participants referred to pop songs already during the pre-test is an extremely intriguing result. It indicates that for seven different students the link between the target words and the corresponding song lyrics was so strong that the latter came to their mind already during the pre-test, although no reference to pop songs had been made. In addition, this result is not reflected in the quantitative figures because all seven students gave the same correct or incorrect answer in the post-test and thus received the same or even fewer points. Since the students with a correct answer already received the maximum score of 5 in the pre-test, their knowledge of these target words is not reflected in higher post-test scores either. This finding of the in-depth qualitative analysis thus implies that the relation between the target words and the lyrics of the respective songs was most likely even stronger than indicated by the results of the statistical tests.

In summary, the main research hypothesis is supported by the data of the vocabulary tests, which suggests that students did indeed acquire vocabulary from pop songs in out-of-school contexts. Since the students recalled the target words significantly better when reminded of the connection

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12 In total, 14 students quoted parts of the song lyrics in their examples of sentence production in the quasi-experiment: 7 students did so in the pre-test and an additional 7 (14 in total) in the post-test.

to a song through a musical prime, it can be inferred that in all likelihood they encountered these words in the context of the pop songs and learnt them through repeated exposure to and engagement with these songs. The increase between the mean score of the pre-test (M=25.912) and of the post-test (M=27.662) is not very high, even though it was found to be statistically significant, and thus the vocabulary uptake was not particularly large. Yet, this was to be expected because gains in vocabulary knowledge from incidental learning are typically rather small (cf. e.g. Hulstijn 2012). In addition, the quasi-experiment attempted to measure vocabulary acquisition at a very early stage of learning of a given word[13], which affects the aspects of word knowledge that can be acquired (cf. e.g. Paribakht and Wesche 1997: 179). In fact, it may be that much knowledge that was acquired from exposure to pop songs could not even be assessed with the present research methodology. Earlier findings by Brown, Waring and Donkaewbua (2008: 158) suggest that

> *the nature of vocabulary learning from extensive reading or listening is more complex than can be determined from [their] study. Indeed, it suggests that a considerable amount of vocabulary knowledge was gained from the exposure, but was not assessed. Such knowledge might include the noticing of lexical phrases, collocational and colligational patterns, new nuances of meanings, improved lexical access speed, and so on. It is probably here that the true benefit of reading and listening extensively occurs.*

Similar conclusions can also be drawn for this study because the activity of listening to English pop songs outside school may have led to the 'noticing' (Schmidt 1990 & 1994) of new phonological forms that were not remembered, or may have contributed to practice effects for words that had been heard previously. While such a fine-grained analysis of word knowledge remains very difficult and was not possible in the context of the present study, the results are rather encouraging in that they show that at least some participating students were able to notice and acquire partial knowledge of target words from out-of-school input.

In summary, research question 1 can be answered positively because the results of the questionnaire showed that all learners listen to substantial amounts of English pop songs outside school and the outcomes of the vocabulary tests of the quasi-experiment indicated that students acquired vocabulary incidentally by listening to and engaging with English pop songs.

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13 'Knowing a word' entails learning different characteristics of a single word relating to its form, meaning and use (cf. Nation 2001: 27) both receptively and productively. Participants in this study cannot be expected to have learnt all of these features from exposure to pop songs outside school; thus, their level of word knowledge of any of the target words will be rather low and they are at an early stage of acquiring all the features of world knowledge for a given word.

Furthermore, a more detailed analysis of students' language production in the vocabulary pre- and post-test revealed that nearly 10% of the participants already thought about pop songs during the pre-test, thus suggesting that the link between the target words and the corresponding song lyrics was even stronger than shown by the statistical tests.

The results of this study[14] then indicate that students can learn vocabulary incidentally from English out-of-school input, but the amount of vocabulary knowledge gained is rather small. Hence, the conclusion that can be drawn is that while incidental learning on its own would not result in satisfying levels of vocabulary knowledge, it is a valuable tool to support more explicit vocabulary learning. As the studies presented in section 3 show, teenagers are exposed to large amounts of English language input outside school and this potential for additional vocabulary learning remains largely untapped. Therefore, the value of incidental vocabulary learning from out-of-school English input lies in the fact that it is an enjoyable way for students to expand their vocabulary knowledge by engaging with media such as songs, computer games or television shows that they are genuinely interested in. If students became more conscious of the extent of their exposure to English even in traditional EFL countries like Austria, vocabulary uptake from such informal language input might increase as well. This issue will be discussed further in section 6.

## 6. Implications

Research question 3 "Which conclusions for English language learning and teaching can be drawn from the findings?" is concerned with possible implications of this study for EFL teaching and learning practices. As has been discussed in section 3, nowadays foreign language input, especially with regard to English, is not limited to school contexts anymore. Teenagers are exposed to a considerable amount of English language input outside school through the use of popular media, but this valuable resource is currently only rarely used in language classrooms. Berns, de Bot and Hasebrink (2007: 115) summarize the impact of the additional exposure to English outside school concisely in the following statement:

> *The omnipresence of English in the lives of young people and the diversity of functions this language serves them has substantial consequences for language*

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14 Further statistical tests and an error analysis were carried out in order to determine possible influencing factors of incidental learning (research question 2). Interested readers are referred to Schwarz (2012: chapter 6) for a detailed discussion of the analytical methods and a complete presentation of the results.

*teaching. As has been shown very clearly in this study, school is but one source of contact with English – and at least for some groups not the most important one.*

Grau (2009: 172) also concludes that

*[g]iven the great variety of uses of English in teenage youth cultures in Germany today, it is high time that educators acknowledge these as ways of achieving competencies in English, which may be taken up and refined in school.*

In accordance with these experts, I argue that teachers need to become aware of the beneficial effects of out-of-school English input and of ways to exploit it for language learning. The findings of the empirical study presented in this paper indicate that incidental vocabulary acquisition from English pop songs outside school does indeed occur and that already intermediate language learners can profit from out-of-school input. Admittedly, vocabulary gains from incidental learning are usually rather small, which is also reflected in the results of the present study, but as Nation (2001: 238) points out: "Small gains become large gains if learners do large quantities of reading [or listening]". Since most participants of this study reported listening to pop songs almost every day and since most of these songs' lyrics are in English, learners are actually exposed to large quantities of English input and Nation's claim may well apply. Incidental vocabulary learning should therefore not be used as a technique on its own, but in conjunction with more explicit methods of vocabulary learning, as has already been suggested in the previous section. The role of incidental vocabulary learning from out-of-school input should be to support more explicit studying in and for school in an enjoyable way. Engaging with interesting examples of 'real-world' English can boost students' motivation and confidence by relating language learning at school to their world and by showing them how much they can already understand.

In my view, it would therefore be a colossal waste to ignore this potential for additional vocabulary acquisition; teenagers will always listen to music, play computer games or watch television shows and once they have reached a certain proficiency level, they should be encouraged to engage with the English versions of these media. 15 Vocabulary learning from pop songs and other English media can also be promoted in other simple ways; exploiting pop songs for language learning purposes does not necessarily mean that they have to be taught at school, to which many teachers object because of limited class time (cf. Murphey 1992: 8). Instead, teachers can raise their learners' awareness about the amount of English words that they are exposed to on a daily basis by rendering the link between 'school English'

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15 Many popular television series are originally in English, for instance, and students can be encouraged to watch the original rather than the dubbed German versions.

and 'real-world English' explicit. For instance, they could connect new words to the titles of songs, movies or computer games, provide examples of the use of English words in everyday contexts, or ask students if they know what English words frequently used among teenagers actually mean.[16] Promoting such awareness does not mean that teachers have to do all the work and provide students with ready-made examples; on the contrary, students should be encouraged to establish connections between their everyday use of English and language learning at school themselves and to bring their own examples to the classroom. Such active participation on part of the students can take many different forms like a 'word of the day' feature, a class vocabulary log or simple homework projects centering on topics like pop music, movies, or brand names and advertising.

By trying to raise the awareness for English outside school with simple activities, teachers can initiate a process that might well lead to greater gains in vocabulary knowledge because once students are more conscious of the amount of English they are surrounded by vocabulary uptake from out-of-school English input may also increase. One caveat that language teachers need to bear in mind though, is the fact that telling students to use their leisure activities for purposes of language learning can also be counterproductive. Kuppens (2010: 80), who researches language learning through the popular media, stresses the fact that the association with 'fun' leisure activities is one of the reasons for adolescents' positive attitudes towards English, and thus warns that "when educators attempt to formalize incidental learning, they might well inhibit it". Consequently, teachers must try not to take the fun out of such learning opportunities by giving projects or pieces of homework related to English outside school a playful character. Pop music and other popular media should not be regarded primarily as sources of vocabulary acquisition, but as students' pastimes which offer a chance to supplement regular English lessons with enjoyable activities.

# 7. Conclusion

The empirical study presented in this article investigated incidental EFL vocabulary acquisition from pop songs in out-of-school contexts in Austria. The results of the survey showed that all participating students spend a

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16 These can be very simple examples, for instance almost every teenager in Austria has heard of the annual music festival called 'Frequency', but few of them actually know what the English word means. The same is most probably true for the internet platform 'Twitter' or other English words that are commonly used among adolescents.

substantial amount of their free time listening to English pop music and the outcomes of the quasi-experiment implied that learners acquired new words incidentally while engaging with pop songs. As a result, the findings of this study indicate that incidental vocabulary acquisition in out-of-school contexts can indeed occur and that music and songs might be an effective tool to support vocabulary learning.

As a result, it has been argued that language input from the popular media, and especially from songs, should be considered more centrally in EFL teaching and learning. Language teachers' awareness about the benefits of this additional exposure to English needs to be raised because at the moment out-of-school input does not seem to play a role in most language classrooms (cf. Grau 2009: 171). Teachers need to be able to make their students aware of these rather enjoyable learning resources and encourage them to link their language learning activities to their use of English in the 'real world'.

Of course, learners cannot be forced to use their leisure activities for language learning, and as has been discussed above, such an approach could actually have detrimental effects. Yet, since the "omnipresence of English in the lives of young people" (Berns et al. 2007: 115) cannot be denied, teachers should at least try to use this out-of-school input for language and especially vocabulary learning and attempt to "construct bridges between pupils' contacts with English inside and outside the classroom, and thus between intentional and incidental language acquisition" (Kuppens 2010: 80).

# References

Abbott, Marilyn. 2002. "Using music to promote L2 learning among adult learners". *TESOL Journal* 11(1), 10-17.

Anthony, Laurence. 2009. AntWordProfiler 1.200w. http://www.antlab.sci.waseda.ac.jp/software.html (accessed 3 October 2011).

Anthony, Laurence. 2011. AntConc 3.2.4w. http://www.antlab.sci.waseda.ac.jp (accessed 3 October 2011).

Bachman, Lyle F. 2004. *Statistical analyses for language assessment.* Cambridge: Cambridge University Press.

Balota, David A. 1994. "Visual word recognition: the journey from features to meaning". In Gernsbacher, Morton A. (ed.). *Handbook of Psycholinguistics*. London: Academic Press, 303-359.

Berns, Margie S.; de Bot, Kees; Hasebrink, Uwe (eds.). 2007. *In the presence of English: media and European youth.* New York: Springer.

Besson, Mireille; Friederici, Angela D. 2005. "Part II: language and music: a comparison. Introduction". *Annals of the New York Academy of Science* 1060(1), 57-58.

Besson, Mireille & Schön, Daniele. 2003. "Comparison between language and music". In Peretz, Isabelle; Zatorre, Robert J. (eds.). *The cognitive neuroscience of music.* Oxford: Oxford University Press, 269-293.

Besson, Mireille; Faita, Frederique; Peretz, Isabelle; Bonnel, Anne-Marie; Requin, Jean. 1998. "Singing in the brain: independence of lyrics and tunes". *Psychological Science* 9(6), 494-498.

Bigand, Emmanuel; Tillmann, Barbara; Poulin, Bénédicte; D'Adamo, Daniel A.; Madurell, François. 2001. "The effect of harmonic context of phoneme monitoring in vocal music". *Cognition* 81, B11-B20.

Bonnel, Anne-Marie; Faita, Frederique; Peretz, Isabelle; Besson, Mireille. 2001. "Divided attention between lyrics and tunes of operatic songs: evidence for independent processing". *Perception & Psychophysics* 63(7), 1201-1213.

Brown, Ronan, Waring, Rob; Donkaewbua, Sangrawee. 2008. "Incidental vocabulary acquisition from reading, reading-while-listening, and listening to stories". *Reading in a Foreign Language* 20(2), 136-163.

Cohen, Louis; Manion, Lawrence; Morrison, Keith. 2011. *Research methods in education*, 7th edition. London: Routledge.

Donzelli, Giovanna. 2007. "Foreign language learners: words they hear and words they learn: a case study". *Estudios de lingüística inglesa aplicada* 7, 103–125.

Dörnyei, Zoltán. 2007. *Research methods in applied linguistics: quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.

d'Ydewalle, Géry; van de Poel, Marijke. 1999. "Incidental foreign-language acquisition by children watching subtitled television programs". *Journal of Psycholinguistic Research* 28(3), 227-244.

Elley, Warwick B. 1989. "Vocabulary acquisition from listening to stories". *Reading Research Quarterly* 24(2), 174-187.

Ellis, Rod. 1999. "Factors in the incidental acquisition of second language vocabulary from oral input". In Ellis, Rod (ed.). *Learning a second language through interaction*. Amsterdam: John Benjamins, 35-61.

Feitelson, Dina; Goldstein, Zahava; Iraqi, Jihad; Share, David L.. 1993. "Effects of listening to story reading on aspects of literacy acquisition in a diglossic situation". *Reading Research Quarterly* 28(1), 70-79.

Fonseca Mora, Carmen. 2000. "Foreign language acquisition and melody singing". *ELT Journal* 54(2), 146-152.

Gass, Susan. 1999. "Discussion: incidental vocabulary learning". *Studies in Second Language Acquisition* 21, 319-333.

Gerngross, Günter; Puchta, Herbert; Holzmann, Christian; Davis, Robin. 2009. *The New You & Me*. Wien: Langenscheidt.

Gerngross, Günter; Puchta, Herbert; Holzmann, Christian; Stranks, Jeff; Lewis-Jones, Peter. 2007-2010. *More!* Innsbruck: Helbling Languages.

Grau, Maike. 2009. "Worlds apart? English in German youth cultures and in educational settings". *World Englishes* 28(2), 160-174.

Groussard, Mathilde; Viader, Fausto; Hubert, Valérie; Landeau, Brigitte; Abbas, Ahmed; Desgranges, Béatrice; Eustache, Francis; Platel, Hervé. 2010. "Musical and verbal semantic memory: Two distinct neural networks?". *NeuroImage* 49(3), 2764-2773.

Horst, Marlise. 2010. "How well does teacher talk support incidental vocabulary acquisition?". *Reading in a Foreign Language* 22(1), 161-180.

Huckin, Thomas N.; Coady, James. 1999. "Incidental vocabulary acquisition in a second language: a review". *Studies in Second Language Acquisition* 21, 181-193.

Hulstijn, Jan H. 2001. "Intentional and incidental second language learning: a reappraisal of elaboration, rehearsal and automaticity". In Robinson, Peter (ed.). Cambridge: Cambridge University Press, 258-286.

Hulstijn, Jan H. 2003. "Incidental and intentional learning". In Doughty, Catherine; Long, Michael H. (eds.). *The handbook of second language acquisition*. Malden: Blackwell, 348-381.

Hulstijn, Jan H. 2012. "Incidental learning in second language acquisition". In Chapelle, Carol A. (ed.). *The encyclopedia of applied linguistics*. http://home.medewerker.uva.nl/j.h.hulstijn/bestanden/Hulstijn_Incidental%20learning_for%20website.pdf (accessed 10 November 2012).

Jackendoff, Ray. 2009. "Parallels and nonparallels between language and music". *Music Perception* 26(3), 195-204.

Kerka, Sandra. 2000. *Incidental Learning. Trends and Issues Alert No. 18*. http://20.132.48.254/PDFS/ED446234.pdf (accessed 6 June 2011).

Koelsch, Stefan; Kasper, Elisabeth; Sammler, Daniela; Schulze, Katrin; Gunter, Thomas; Friederici, Angela D. 2004. "Music, language and meaning: brain signatures of semantic processing". *Nature Neuroscience* 7(3), 302-307.

Kolinsky, Régine; Lidji, Pascale; Peretz, Isabelle; Besson, Mireille; Morais, José. 2009. "Processing interactions between phonology and melody: vowels sing but consonants speak". *Cognition* 112(1), 1-20.

Kuppens, An H. 2010. "Incidental foreign language acquisition from media exposure". *Learning, Media and Technology* 35(1), 65-85.

Larson-Hall, Jenifer. 2010. *A guide to doing statistics in second language research using SPSS*. New York: Routledge.

Lowe, Mark. 2007. "Language and music: the parallels between learning/teaching language and learning/teaching music". *Modern English Teacher* 16(3), 5-11.

Ludke, Karen M. 2009. *Teaching foreign languages through songs*. http://www.era.lib.ed.ac.uk/bitstream/1842/5500/1/Ludke%2c%20K.M.%20-%20Teaching%20foreign%20languages%20through%20songs%20%28workbook%29.pdf (accessed 9 October 2011).

McElhinney, Martin; Annett, Judith M. 1996. "Pattern of efficacy of a musical mnemonic on recall of familiar words over several presentations". *Perceptual and Motor Skills* 82(2), 395–400.

Medina, Suzanne L. 1990. "The effect of music upon second language vocabulary acquisition". Paper presented at the Annual Meeting of the Teachers of English to Speakers of Other Languages, San Francisco, CA, 6-10 March 1990.

Milton, James. 2008. "Vocabulary uptake from informal learning tasks". *Language Learning Journal* 36(2), 227-237.

Milton, James. 2009. *Measuring second language vocabulary acquisition*. Bristol: Multilingual Matters.

Molino, Jean. 2000. "Toward an evolutionary theory of music and language". In Wallin, Nils L.; Merker, Björn; Brown, Steven (eds.). *The origins of music*. Cambridge, Mass: MIT Press, 165-176.

Murphey, Tim. 1990. *Song and music in language learning: an analysis of pop song lyrics and the use of song and music in teaching English to speakers of other languages*. Bern: Peter Lang.

Murphey, Tim. 1992. *Music and song*. Oxford: Oxford University Press.

Nation, Paul. 2001. *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Paribakht, Tahereh S.; Wesche, Marjorie. 1997. "Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition". In Coady, James; Huckin, Thomas N. (eds.). *Second language vocabulary acquisition. A rationale for pedagogy*. Cambridge: Cambridge University Press, 174-200.

Patel, Aniruddh D. 2008. *Music, language, and the brain*. Oxford: Oxford University Press.

Patel, Aniruddh D. 2012. "Language, music, and the brain: a resource-sharing framework". In Rebuschat, Patrick; Rohmeier, Martin; Hawkins, John A. (eds.). *Language and music as cognitive systems*. Oxford: Oxford University Press, 204-223.

Peretz, Isabelle. 2006. "The nature of music from a biological perspective". *Cognition* 100(1), 1–32.

Peretz, Isabelle. 2012. "Music, language and modularity in action". In In Rebuschat, Patrick; Rohmeier, Martin; Hawkins, John A. (eds.). *Language and music as cognitive systems*. Oxford: Oxford University Press, 254-268.

Peretz, Isabelle; Coltheart, Max. 2003. "Modularity of music processing". *Nature Neuroscience* 6(7), 688-691.

Peretz, Isabelle; Radeau, Monique; Arguin, Martin. 2004. "Two-way interactions between music and language: evidence from priming recognition of tune and lyrics in familiar songs". *Memory & Cognition* 32(1), 142-152.

Poulin-Charronnat, Bénédicte; Bigand, Emmanuel; Madurell, François; Peereman, Ronald. 2005. "Musical structure modulates semantic priming in vocal music". *Cognition* 94(3), B67-B78.

Racette, Amélie; Peretz, Isabelle. 2007. "Learning lyrics: to sing or not to sing?". *Memory & Cognition* 35(2), 242-253.

Rainey, David W.; Larsen, Janet D. 2002. "The effect of familiar melodies on initial learning and long-term memory for unconnected text". *Music Perception* 20(2), 173-186.

Ranta, Elina. 2010. "English in the real world vs. English at school: Finnish English teachers' and students' views". *International Journal of Applied Linguistics* 20(2), 156-177.

Rauscher, Frances H.; Shaw, Gordon L.; Ky, Catherine N. 1993. "Music and spatial task performance". *Nature* 365(6447), 611.

Read, John. 2000. *Assessing vocabulary*. Cambridge: Cambridge University Press.

Rieder, Angelika. 2003. "Implicit and explicit learning in incidental vocabulary acquisition". *VIEWS* 12(2), 24-39.

Saffran, Jenny R. 2003a. "Mechanisms of musical memory in infancy". In Peretz , Isabelle; Zatorre, Robert J. (eds.). *The cognitive neuroscience of music*, 32-41. Oxford: Oxford University Press.

Saffran, Jenny R. 2003b. "Musical learning and language development". *Annals of the New York Academy of Science* 999(1), 397-401.

Schellenberg, Glenn E. 2006. "Exposure to music: the truth about the consequences". In McPherson, Gary E. (ed.). *The child as musician. A handbook of musical development.* Oxford: Oxford University Press, 111-134.

Schmidt, Richard. 1990. "The role of consciousness in second language learning". *Applied Linguistics* 11(2), 129-158.

Schmidt, Richard. 1994. "Deconstructing consciousness in search of useful definitions for applied linguistics". *AILA Review* 11, 11-26.

Schmitt, Norbert. 2000. *Vocabulary in language teaching*. Cambridge: Cambridge University Press.

Schön, Daniele; Boyer, Maud; Moreno, Sylvain; Besson, Mireille; Peretz, Isabelle; Kolinsky, Régine. 2008. "Songs as an aid for language acquisition. Brief article". *Cognition* 106, 975–983.

Schön, Daniele, Gordon, Reyna L.; Besson, Mireille. 2005. "Musical and linguistic processing in song perception". *Annals of the New York Academy of Science* 1060(1), 71-81.

Schön, Daniele; Gordon, Reyna L.; Campagne, Aurélie; Magne, Cyrille; Astésano, Corine; Anton, Jean-Luc; Besson, Mireille. 2010. "Similar cerebral networks in language, music and song perception". *NeuroImage* 51(1), 450-461.

Schwarz, Marlene. 2012. "Learning with Lady GaGa & Co. – Incidental EFL vocabulary acquisition from pop songs". Wien: Universität Wien, MA thesis.

Seel, Norbert M. (ed.). 2012. *Encyclopedia of the sciences of learning*. New York: Springer.

Seregély, Eva M. 2008. *A comparison of lexical learning in CLIL and traditional EFL classrooms*. Wien: Universität Wien, MA thesis.

Slevc, L. R.; Patel, Aniruddh D. 2011. "Meaning in music and language: Three key differences". *Physics of Life Reviews* 8(2), 110-111.

Smidt, Esther; Hegelheimer, Volker. 2004. "Effects of online academic lectures on ESL listening comprehension, incidental vocabulary acquisition, and strategy use". *Computer Assisted Language Learning* 17(5), 517-556.

SPSS Inc. 2010. *IBM SPSS Statistics*. [Computer Program].

Summer, Theresa. 2010. "The role of English songs in students' lives: a survey report". In Blell, Gabriele; Kupetz, Rita (eds.). *Der Einsatz von Musik und die Entwicklung von audio literacy im Fremdsprachenunterricht*. Frankfurt am Main: Peter Lang, 317-330.

Verspoor, Marjolijn H.; de Bot, Kees; van Rein, Eva. 2011. "English as a foreign language: The role of out-of-school language input". In de Houwer, Annick; Wilton, Antje (eds.). *English in Europe today. Sociocultural and educational perspectives*. Amsterdam: John Benjamins, 147-166.

Vidal, Karina. 2003. "Academic listening: a source of vocabulary acquisition?". Applied Linguistics 24(1), 56-89.

Vidal, Karina. 2011. "A comparison of the effects of reading and listening on incidental vocabulary acquisition". *Language Learning* 61(1), 219-258.

Wallace, Wanda T. 1994. "Memory for music: effect of melody on recall of text". *Journal of Experimental Psychology: Learning, Memory and Cognition* 20(6), 1471-1485.

Wallin, Nils L.; Merker, Björn; Brown, Steven (eds.). 2000. *The origins of music*. Cambridge, MA: MIT Press.

Wesche, Marjorie; Paribakht, Tahereh S. 1999. "Introduction". *Studies in Second Language Acquisition* 21, 175-180.

Wode, Henning. 1999. "Incidental vocabulary acquisition in the foreign language classroom". *Studies in Second Language Acquisition 21*, 243-258.

# Appendix

**Table 7 Scoring scheme of the Vocabulary Knowledge Scale**

| Category or problem | Level of knowledge and explanation | Score |
|---|---|---|
| A | does not recognize the word<br>*total unfamiliarity* | 1 |
| no answer | = A: does not recognize the word<br>*total unfamiliarity* | 1 |
| B | recognizes having seen/heard the word<br>*partial unfamiliarity* | 2 |
| wrong answer in C, D, E | = B: recognizes having seen/heard the word<br>*partial unfamiliarity* | 2 |
| C, D, E without evidence | = B: recognizes having seen/heard the word<br>*partial unfamiliarity* | 2 |
| E sentence given + no translation/ synonym in D: correct sentence, but misinterpretation of meaning | = B: recognizes having seen/heard the word<br>*semantically incorrect use shows partial unfamiliarity* | 2 |
| C, D translation wrong, but association right | has a vague idea of the meaning of the word<br>*vague recognition* | 2,5 |
| E sentence given + no translation/ synonym in D: correct sentence, grammar of lexical item wrong, but gives indication of associated meaning | has a very vague idea of the meaning of the word<br>*semantically vague use shows vague recognition* | 2,5 |
| C | has an idea of the meaning of the word<br>*partial recognition* | 3 |
| D | shows a full understanding of the meaning of the word<br>*total recognition* | 3,5 |
| E semantically correct, but grammar of lexical item wrong + D correct | shows a full understanding of the meaning of the word and is able to provide an example but grammatically wrong<br>*total recognition and partially correct word use* | 4 |
| E only a fragment, but correct + D correct | shows a full understanding of the meaning of the word and is able to provide an example in form of a sentence fragment<br>*total recognition and partially correct or ambiguous word use* | 4 |
| E partially wrong or semantically ambiguous (quoting lyrics) + D correct | shows a full understanding of the meaning of the word and is able to provide an example but partly wrong or semantically unclear<br>*total recognition and correct but ambiguous word use* | 4 |
| E correct, but D grammar of lexical item wrong | shows a partial understanding of the meaning of the word and is able to provide a correct example<br>*partial recognition and semantically correct word use* | 4 |
| E sentence given + no translation/ synonym in D: correct sentence, but doesn't give clear indication of meaning | is able to provide a correct example, which partly indicates meaning<br>*correct but ambiguous word use shows partial recognition* | 4 |
| E + D completely correct | shows a full understanding of the meaning of the word and is able to provide a correct example<br>*total recognition and correct unambiguous word use* | 5 |
| E + C completely correct | shows a full understanding of the meaning of the word (although not certain) and is able to provide a correct example<br>*total recognition and correct unambiguous word use* | 5 |
| E sentence given +no translation/ synonym in D: correct sentence gives clear indication of meaning | is able to provide a correct example, which clearly indicates meaning<br>*correct unambiguous word use shows total recognition* | 5 |

**Table 8 Distribution of participants' scores over all scoring categories for pre- and post-test**
**(increased scores in the post-test have been highlighted in bold script)**

| | Pre-test | | | | | | | | Post-test | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **2,5** | **3** | **3,5** | **4** | **5** | **Total** | **1** | **2** | **2,5** | **3** | **3,5** | **4** | **5** | **Total** |
| **1 a blade** | 27 | 34 | 4 | 2 | 3 | 3 | 1 | 74 | 15 | **45** | 3 | **3** | **4** | 3 | 1 | 74 |
| **2 to toss** | 47 | 25 | 0 | 0 | 0 | 0 | 2 | 74 | 23 | **45** | 1 | **2** | **0** | 0 | 2 | 73 |
| **3 a clover** | 30 | 44 | 0 | 0 | 0 | 0 | 0 | 74 | 12 | **62** | 0 | 0 | 0 | 0 | 0 | 74 |
| **4 a blur** | 41 | 33 | 0 | 0 | 0 | 0 | 0 | 74 | 30 | **44** | 0 | 0 | 0 | 0 | 0 | 74 |
| 5 screwed | 24 | 49 | 0 | 0 | 0 | 1 | 0 | 74 | 18 | **55** | 0 | 0 | 0 | 1 | 0 | 74 |
| 6 to skip | 0 | 50 | 0 | 9 | 3 | 5 | 6 | 73 | **3** | 49 | 0 | 6 | 1 | **6** | 9 | 74 |
| 7 a price tag | 8 | 53 | 1 | 2 | 5 | 2 | 3 | 74 | 8 | 51 | 0 | **3** | 5 | **3** | **4** | 74 |
| 8 breathless | 9 | 41 | 0 | 3 | 9 | 7 | 5 | 74 | 8 | 41 | 0 | **6** | 5 | **10** | 4 | 74 |
| 9 a scar | 18 | 52 | 1 | 0 | 0 | 0 | 3 | 74 | 18 | 51 | 1 | **1** | 0 | **1** | 2 | 74 |
| 10 an edge | 19 | 53 | 0 | 0 | 1 | 0 | 1 | 74 | 11 | **61** | 0 | 0 | 1 | 0 | 1 | 74 |
| 11 a tone | 16 | 33 | 1 | 16 | 3 | 2 | 2 | 73 | 13 | **34** | 3 | **20** | 1 | 0 | **3** | 74 |
| 12 bulletproof | 20 | 41 | 1 | 1 | 1 | 4 | 5 | 73 | 14 | **47** | 1 | **3** | 1 | 4 | 4 | 74 |
| **13 to ricochet** | 62 | 11 | 0 | 0 | 0 | 1 | 0 | 74 | 46 | **27** | 0 | 0 | 0 | 1 | 0 | 74 |
| 14 to deny | 39 | 33 | 0 | 1 | 0 | 1 | 0 | 74 | 32 | **39** | 1 | 0 | 0 | **2** | 0 | 74 |

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