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ZA ÍZENÍ ZAM UJÍCÍ SE NA SAMOSTATNÉ
STUDIUM SLOVNÍ ZÁSOPY V ANGLICKÉM
JAZYCE**

Petra Dupalová

University of West Bohemia

Faculty of Education

Department of English

Thesis

**EVALUATION OF MOBILE APPLICATIONS
DESIGNED FOR INDEPENDENT STUDY OF
ENGLISH VOCABULARY**

Petra Dupalová

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Tato stránka bude ve svázané práci Vá-p vodní formulá *Zadání dipl. práce*

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Prohlá–uji, že jsem práci vypracovala samostatn s použitím uvedené literatury a zdroj informací.

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Petra Dupalová

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ABSTRACT

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This thesis deals with the topic of using mobile applications as a tool for independent study of English vocabulary. The theoretical part presents overview of effective learning strategies and stages of practice in relation to vocabulary learning. The background chapter also focuses on principles of autonomous learning and takes closer look at what mobile learning is. At last, the background chapter touches upon the principles of utilizing ESL applications within vocabulary learning. The conducted research, realized by the means of evaluation is introduced in the second part of the thesis. The research evaluates nine applications, which focus on learning English vocabulary. The evaluated applications are as follows: *VoLT ó Vocabulary Learning*, *English Vocabulary Daily*, *13000 English Vocabulary Video*, *English with Words*, *MyWordBook*, *Learn English Vocabulary Daily*, *Vocabulary Builder*, *Learn English Words Free*, and *Learn English 6,000 Word*. In conclusion, based on the results of the research, pedagogical implications are suggested.

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I. INTRODUCTION

Human, when born is given a great trait to be able to learn things. Particularly vocabulary learning will be a target of this work with special focus on building up and developing the English word-stock while using modern effective applications on the mobile devices outside the classroom. In the theoretical part I will touch upon the language learning and acquisition, discussing if there is any difference between learning languages as an adult or as a child, and upon vocabulary acquisition. Secondly, to successfully evaluate the applications that are designed for the development of the English vocabulary, it is necessary to mention some points that are crucial and should be remembered when learning new vocabulary i.e. how do we learn the vocabulary and what methods or approaches can we use when presenting the new words, how often we should revise the already learnt vocabulary and what type of exercises could be introduced/ The implementation and introduction of technology into our lives has given us an access to various opportunities and made a lot of things available. Especially mobile devices such as mobile phones or laptops have become an essential part of our everyday life. These gadgets enable us to communicate worldwide or to function for pure entertainment but they can also serve as a tool for education. As a result, there are numerous alternatives and complementary methods to traditional book learning and teaching, one of this is called mobile learning.

II. THEORETICAL BACKGROUND

What is Vocabulary?

Vocabulary can be defined as a set of words we teach in the foreign language (Ur, 2007, p. 60). One lexeme can be represented by more than a single word yet referring to a single idea and it will be still learnt as a new individual vocabulary item. For example, the compound words 'real estate' or 'commander-in-chief'. Also, idioms consisting of more than one word are taught and considered as a single vocabulary item and should be also learnt and perceived as a single unit because its meaning cannot be deduced from the analysis of individual words. Moreover, by changing any of the words or leaving some of them out, would result in either changing the meaning or even more losing the meaning at all, for instance 'cry over spilt milk'. If we change or leave any of the words, the idiom would lose its meaning.

Some teachers might use term 'lexis' and refer to 'vocabulary' however according to Scrivener (2005) 'vocabulary' refers mainly to single words and sometimes to very tightly linked two- or three-word combinations whereas the concept of lexis refers to 'traditional single words and complete 'ready-made' fixed/semi-fixed/ typical combinations of words' (p.227). Furthermore, in everyday communication we use less vocabulary items than we actually know, yet we are able to recognise and comprehend many more rather than actively use them. In that case we are talking about active and passive vocabulary or as Scrivener (2005) suggests 'productive and receptive lexis' (p.229). The more advance we get and the more new words we learn, the more it is likely that the new items would be saved into passive vocabulary as we might not have so many opportunities to actively use them. On the other hand, the beginners start to learn new lexical items which are meant to be used immediately and actively; therefore, they become part of their productive lexis.

Knowing the Word

We believe, to know a word means to know its core meaning, correct spelling and the way it is pronounced (Scrivener, 2005, p. 248). To some extent this might be true

because according to Thornbury (2007) "at the most basic level, knowing a word involves knowing its form and meaning" (p. 15). But as Scrivener (2005, p.246) points out, the idea of learning and knowing a word does not only involve matching to its basic meaning but the learner should also know other forms of meaning and most importantly he or she should be able to use them appropriately depending on the situation and contexts. Moreover, it is essential to know what other words it tends to go with, so called collocation. It is a combination of words that we expect to go together (Thornbury, 2007, p. 15); for example, "to do my homework" but "to make my bed". Apart from knowing the dictionary meaning and the collocations, to know a word also includes to be aware of its connotations or associations depending on the register and cultural aspects (Thornbury, 2007, p. 15). Schmitt & Schmitt (1995, p.135) agree that word knowledge includes apart from knowing word's form, grammatical characteristics, its frequency and derivatives also relationship to other words and what it commonly appears with, and its stylistic qualities. With reference to Scrivener (2005, p. 248) the teacher, especially with students of intermediate and advanced levels, should focus more on the use in depth rather than on teaching new lexical items followed by practice and recycling. What shall we understand under the use in depth? It is very important for the learners to meet and subsequently to use one word in as many various patterns, contexts and situations as possible. We should let learners explore the language and give them the opportunity to form various combinations and patterns of the already learnt words. Moreover, we should challenge and encourage them to keep record of the real language as they tend to separate the connected items (Scrivener, 2005, p.250).

Receptive and Productive Knowledge

Vocabulary knowledge involves knowing the word passively as well as actively, also referred to as receptive and productive knowledge by Nordquist (Second-Language Learners and Vocabulary Acquisition, n.d.). Webb explains receptive vocabulary knowledge as "the ability to recognize the form of a word and to define or find a synonym for it" (as cited in Zhong, 2011, p. 119). This is usually connected with listening and reading, whilst speaking and writing is considered productive knowledge (Nordquist, n.d.). According to Webb's study, productive vocabulary knowledge is "the ability to recall the

form and meaning of a foreign language word (as cited in Zhong, 2011, p. 119). In general, the receptive knowledge usually precedes the productive one (Thornbury, 2007, p. 15). This means that we comprehend more words before we are actually capable to produce them by ourselves. This is also supported by Melka's findings that productive knowledge is more advanced and it is often acquired later than the receptive knowledge (as cited in Zhong, 2011, p. 120). On the other hand, the larger the receptive vocabulary knowledge seems, the larger the productive vocabulary size is likely to be (Laufer & Paribakht as cited in Zhong, 2011, p. 120). Yet the threshold between these two types of knowledge is blurred. This is also supported by Pignot-Shakov (p.38, n.d.) as learners have to prove their productive knowledge while listening and reading which is characteristic for the receptive knowledge.

To sum it up, word knowledge is represented by both receptive and productive knowledge of the word and according to Thornbury (2007), word knowledge can be represented by following points:

- the word's form of both spoken and written
- the word's meaning(s)
- any connotations the word might have
- whether the word is specific to a certain register or style
- the word's grammatical characteristics of e.g. part of speech
- the word's common collocations
- the word's derivations
- the word's relative frequency (p. 130).

Language Learning and Acquisition

Firstly, there should be made a difference between language learning and language acquisition. Language acquisition often takes place subconsciously and in random day-to-day situations or spontaneous conversations in the target language, whereas following a curriculum and attending an institution intentionally for the purpose of learning a particular language, for instance grammar or lexis, then we are speaking about language learning as we do it consciously. Yet both can appear simultaneously as Ohm (2015) says, "For instance, the learnt knowledge (explicit) can become acquired knowledge (implicit)"

and thereafter is channelled into language production without any cognitive effort. Therefore, the boundaries can be rather blurred than exact.

All in all, the exposure to the language outside the classroom is crucial for further mastering of the language as all children who are repeatedly exposed to a language will in normal circumstances learn it (Harmer, 2006, p.241). Speaking about the adults, most of them are likely to learn a language without studying it, providing they are in the right kind of contact with it (Harmer, 2001, p.24). This might support the view that young children do not have to learn foreign languages better as the sheer amount of exposure to a foreign language (Ur, 2007, p. 286) is a crucial point for successful and fast language learning and that the age seems not to matter. On the other hand, teachers should adjust the way and what they teach to the age of their students because every group, i.e. children, adolescents and adults have different needs, competences, and cognitive skills (Harmer, p. 37, 2006). For example, cognitive skills and self-discipline are better developed by the adults; therefore, their learning can consist of more abstract ideas and they are also very likely to cope better with boredom (Harmer, 2006, p. 40) and keep working at the given learning time as they have already developed some learning skills and strategies (Nation, 2014 p. 24); whereas younger learners' attention is often limited and can be easily lost. This might be challenging for the lesson planning because teachers should change the activities almost every ten minutes to keep the younger learners engaged as well as be prepared to improvise once the students get bored (Harmer, 2006, p. 38). Secondly, abstract thoughts are very difficult to grasp and understand; therefore activities should be concrete, interactive and give them the opportunity to learn not only from an explanation but also from what they can see, hear or touch around them (Harmer, 2006, p. 38). As having mentioned above, the exposure to a foreign language is of more determinative character than the role of age, yet according to Ur (2007), teenagers seem to be the best learners as their learning gets more effective the older the child is.

Vocabulary Acquisition

Vocabulary knowledge is an important aspect of a successful second language (L2) acquisition, yet its development is largely influenced by the first language (L1) in terms of words and their associations and in terms of the conceptual system and its encoding. Despite the cultural miscellany worldwide, most of the languages will rather share the

conceptual systems than differ (Thornbury, 2007, p. 18). To be specific, conceptual systems and word associations can have both positive and negative impacts on acquisition. According to Thornbury (2007), the first downside is searching for a precise equivalent or direct translation onto the mother tongue. He suggests that the language learners should rather create and make a direct link to the concept of the given word rather than a link to the L1 equivalent as it might be limited and misleading (p. 19).

The size of the first and second language vocabulary differs and the L2 learner has to accept the fact that they will never learn all the words (Schmitt, 1997, p. 24). An educated native speaker will probably have a vocabulary of around 20,000 words. Most adult second language learners, however, will be lucky to have acquired 5,000 word families (Thornbury, 2007, p. 20). On the other hand, for everyday communication it is sufficient to know between 2,000 and 3,000 words (Thornbury, 2007, p. 21); however, it is highly individual to say exactly what words to know as it depends on the personal preferences and needs. It is thus essential to learn and to know what words can be skipped (Schmitt, 1997, p.24). This suggests that a good part of successful vocabulary acquisition happens through incidental learning, which means that the learning is facilitated through exposure to language input, in the form of extensive reading, input from the teacher and from other learners (Thornbury, 2007, p. 22). In addition, as the research by Plass shows incidental acquisition and text comprehension was best for words where learners looked up both picture and text annotations (as cited in Nordquist, *Second-Language Learners and Vocabulary Acquisition*, n.d.).

Presenting New Vocabulary

For effective evaluation of the applications, it is necessary to touch upon the way of presenting new vocabulary. What is the best way of presenting the meaning of new items? Firstly, there is not one singular way of presenting new vocabulary as every learner suits a different approach. Secondly, it also depends on the form of the new item i.e. if it is a single word or two- or three-word combinations, as the learner might note down the meaning of it in various ways depending on the form and context. According to Ur (2007), these are the ways of presenting the meaning of new items:

- Concise definition (as in a dictionary; often a superordinate with qualifications: for example, a cat is an animal which...)
- Detailed description (of appearance, qualities)
- Examples (hyponyms)
- Illustration (picture, object)
- Demonstration (acting, mime)
- Context (story or sentence in which the item occurs)
- Synonyms
- Opposite(s) (antonyms)
- Translation
- Associated ideas, collocations (p. 63)

Moreover, Scrivener (2005, p. 234) adds that it is more than useful to present the items that are connected in some way. For instance, in connection with the same location (e.g. wedding, shopping), grammatical use (e.g. adjectives, verbs) or with a specific task (e.g. persuade, apologise).

On the whole, the above mentioned techniques may vary and can be combined. Some of them might be more time-consuming but can be more beneficial and effective. Yet it has been proved that once the information is being organised, it is easier to learn (Schmitt, 2007, p. 753) Therefore, we should carefully plan what presentation techniques we are going to use as several aspects should be taken into consideration. Firstly, the presentation should be adjusted to the learners' age or level. Secondly, some words are more easily demonstrated by pantomime, pictures or simply through mother tongue rather than long abstract explanation. For instance, using word pairs either in a form of translation, definition/association or image appears to be effective and durable (Nation, 2001, p. 298). However, it also depends on the materials that are used as some techniques and illustrations might be more favourable by the authors and will thus repeatedly appear throughout the book. It also depends on the teachers as they might prefer different ways based on their preferences and personal experience. To sum it up, the presentation of the new vocabulary should be systematic and put into context e.g. introduced within a reading or listening tasks, demonstrated on an example or sentence, or presented with other words that it might come together with. The role of the teacher is crucial as they need to recognise

how many words should be learnt and what vocabulary should be part of productive and receptive lexis as well as to recognise learners' needs and pay particular attention to words that are useful or occur frequently; hence should be learnt (Nation, 2014, p.52). Schmitt & Schmitt (1995, p. 140) suggest that on average twenty words per week should be an adequate amount, yet if we want to increase our vocabulary deliberately it should acquire more. Moreover, teachers should help and encourage the students' craving for learning new words because it will help them to convey the message and to express the meanings in a more precise and exact way (Scrivener, 2005, p. 228).

Practice of New Vocabulary

After presenting new vocabulary, students should have the opportunity to practise and use the new words as it is highly unlikely that the students would learn the newly encountered word on the first exposure (Schmitt & Schmitt, 1995, p. 136). Therefore, the process of practice and recycling should not be neglected as it could result into forgetting partially-known words (Nation, 1990 as cited in Schmitt & Schmitt, 1995, p. 136). The practice can happen individually or in groups, or initiated by the teacher or independently but mainly it should be under controlled conditions especially when practising outside the classroom (Harmer, 2001, p. 60). The students should receive feedback of whether they got it right or wrong, which should help for further practice and improvement. It is important to accept the fact that it is natural to make mistakes, for example mistakes can occur frequently due to interference from a learner's mother, and both the teacher and the student should thus regard this process as an engine for further learning.

There are many options to practise lexis but we should keep in mind that the learners have their own needs and ways for practice and what is appropriate for one student might be useless for another one. Secondly, the oral and/ or written exercises should also focus on actual use of the items within a context rather than individually. Yet using bilingual word pairs/cards for vocabulary learning appears to be one the most effective and durable ways (Nation, 2001, p. 298), since looking at one side of the card requires a retrieval of the other, which is an important stage of vocabulary learning and

simultaneously it strengthens the relation between the form and the meaning (Nation & Meara as cited in Schmitt, 2007, p. 753). One should keep in mind that initially a pack should not exceed the amount of 20 cards and the difficult items should be learnt in small groups (Nation, 2014, p. 29). Once the items seem to be learnt and revised easily, the pack can be extended up to 50 cards. There are some activities suggested by Scrivener: (2005):

- matching pictures to lexical items,
- making use of the lexis in written tasks,
- matching lexical items to others, e.g. collocations, synonyms, opposites, sets of related words, etc.,
- using prefixes and suffixes to build new lexical items from given words,
- classifying items into lists,
- using given lexical items to complete a specific task,
- filling in crosswords, grids or diagrams,
- filling in gaps in sentences,
- memory games (p. 238).

The activities listed above might be useful for independent practice outside the classroom as well as for group work within the classroom as long as the students get feedback of correct and wrong answers (Scrivener, 2005, p. 237).

Stages of Vocabulary Practice

The practice itself is very important but as Harmer (2005, p. 60) suggests it should not be too time-consuming. Firstly, there are also other things that can be and need to be done within the class. Secondly, it is better to distribute the practice, which Thornbury (2007, p. 24) explains as presenting two to three new items, get back, test and then present another set followed by repetition of backtracking and testing.

Repetition. Particularly the repetition can be crucial especially at beginner level as it gives them the opportunity to try and use the language (Harmer, 2005, p.60). According to Nation (2014, p. 43), the more something is repeated, the more likely it is to be learned. On the contrary, Schmitt (1997, p. 18) argues that imagery seems to be more effective than mere repetition. There are two kinds of repetition to be distinguished i.e. choral and individual. As Harmer (2005, p. 60) advises, it often appears safer for students

to repeat words first in chorus and then individually. This reduces the fear of embarrassment associated with getting the word incorrect. There are various types of repetition and the use should be adjusted to the students' level. For instance (Harmer, 2005):

- simple words' repetition (It's a pen. What is it? It's a pen),
- question-and-answer exchanges based on an example with possible variations (Can you ...? Yes, I can. No, I cannot.),
- repetition of the constructions with examples using e.g. comparatives (Buses are cheaper than trains.)
- students come up with their own sentences using the word correctly (p. 61, 62).

No matter how unsophisticated and tedious the repetition might appear, especially to advanced levels, it still does have its use; for example, to quickly check the correct pronunciation of new words. As Harmer (2005, p. 62) additionally points out, it is important to keep the fun element within the repetition stage as well as to encourage students to use the language beyond the 'safer' environment of repetition. On the other hand, Thornbury (2007) opposes this by suggesting that even more important is the 'repetition of encounters with a word' than mechanical practice, such as a drill (p. 24). According to him, the new word should be encountered at a minimum of seven times within a spaced period of time in order to be remembered. Particularly the spacing between the repetitions endorses the imprint and the better the learner knows the word, the larger the spacing should get, speaking of weeks or months (Nation, 2014, p. 43)

Retrieval. According to Thornbury (2007, p. 24) it is another type of repetition and it is very likely that the act of word retrieval from the students' memory will help them to recall and move it into a long-term memory. For example, using the word cards or flash cards encourages the retrieval as it enhances the connection between the word form and its meaning (Nation, 2014, p. 43). Students are usually forced to practise the new words in receptive activities, yet the exercises should call rather for the production and its actual use (Schmitt & Schmitt, 1995, p. 135). In general, the ways of 'revisiting' the new word should vary and the more the better. Nation (2014, p. 43) suggests minimum of eight repetitions.

Use. Apart from repetition and retrieval, it is essential that the new learnt words are put into use. We are likely to remember the particular word if we meet it and use it in as

many different ways as possible, i.e. listening, reading, speaking or writing (Nation, 2014 p. 44). 'Deliberate learning' i.e. learners are taking responsibility for their own learning, through for instance word cards seems, according to Nation (2014,p.28), to be one of the most important learning activities regardless if it happens within or without the context. Moreover, he also points to a research that shows that at the beginning and intermediate level it is in fact more effective to use bilingual word cards The beneficial use of the translation pairs at the early stages of learning is also manifested by Schmitt (as cited in Schmitt, 1997, p. 15) followed then by use in sentences or semantic maps. Nation's findings (1982) have shown that using word pairs for initial learning (native word/L2 target word) appears to help in mastering a large number of words and in keeping it in mind for a longer time (as cited in Schmitt & Schmitt, 1995, p. 134). On the contrary Kopstein and Roshal argue that it is better to pair L2 words with pictures than with L1 definition (as cited in Schmitt, 1997, p. 18). As Thornbury (2007) emphasizes long-term retention and recall can be ensured only if the words are placed into 'working memory'(p. 93). This can be carried out by range of activities, for example (Thornbury, 2007):

- words are taken apart and put back together
- comparison
- combination
- matching
- sorting
- visualisation
- re-shuffling (p. 93).

The more cognitively demanding the activity is, the more likely it is the word to be remembered (Thornbury, 2007, p.25). This means that the activity requires more brain work compared to mechanical repetition (Thornbury, 2007, p. 39).

On the whole, the repetition and retrieval plays a crucial role when practising vocabulary as it helps to put the new words into a long-term memory. Moreover, successful vocabulary practice involves a range of activities from drilling to more cognitively demanding ones and students should be exposed to as many of them as possible. As a result, the new words will be recalled more easily and hence put into use.

Recording Vocabulary

It is very important the way the students record the new vocabulary as it will help them for further learning and hence better remembering. Schmitt & Schmitt (1995, p. 133) promote keeping a vocabulary notebook as it proves better achievement in vocabulary learning. They advise on recording the words into loose-leaf binders or on cards rather than into ordinary bound notebooks as this allows greater flexibility to organise the words according to groups or knowledge (Schmitt & Schmitt, 1995, p.137). The track of new L2 words should be in some way kept organised as it makes the learning alternatively the remembering easier (Baddeley, 1990 as cited in Schmitt & Schmitt, 1995, p. 134). For instance, the better-known words should be placed in the back and the lesser-known ones towards the front as they should be given more attention (Schmitt & Schmitt, 1995, p. 137, 139). The record of lexis should be systematic with comprehensible meaning and should include appropriate information such as the pronunciation or the stress as it might be crucial for the meaning (Ur, 2007, p.60). Secondly, the new words can be divided according to various associations, for instance based on word class, meaning, sound, situation or parts of speech (Ur, 2007, p.62, Schmitt & Schmitt, 1995, p. 134). This so called *grouping* seems to be promoted naturally and it is a good aid for recall (Schmitt, 1997, p. 19). Yet, Schmitt (2007, p. 253) opposes that the grouping is beneficial only if some words are already partially known. On the other hand, Bousfield suggests to organise one group, for example all animal first, and then move to another group (as cited in Schmitt, 1997, p. 19). Moreover, the list should contain the new words in use, either some frequent collocation or sentences (Ur, 2007, p. 63). It should be simply put into a context rather than an endless list of new words.

According to Decker & Wheatley listing the words diagonally down the page shows better recall than listing them in a single column (as cited in Schmitt, 1997, p. 20). Belleza advises on recording the words on a page in the shape of rectangles as this proved better immediate recall as well as after one week than the words which were organised in columns (as cited in Schmitt, 1997, p. 20). Last but not least, teachers should take into consideration what words they are going to teach and when because learners tend to remember words at the beginning of a list better (Ur, 2007, p. 67). As a result, teacher

should teach more important and more difficult words first. Once briefly taught at the beginning of the lesson, it should be also reviewed later in the same lesson and again in the next one (Ur, 2007, p. 67).

Nation (2014, p. 32) advises on not noting and subsequent not learning of words together like synonyms, opposites, or members of one lexical set, e.g. days of week or colours, as it is highly probable that they will interfere between each other and it will result into vain confusion. Schmitt (2007, p.253) agrees on teaching similar words might lead into cross-association, i.e. confusion between the form and the meaning. According to Nation (2014, p.32) we should rather note and learn the words that are related as if in a story such as *frog, pond, green, and hop*. As a result, to avoid the interference words that are closely related in meaning, similar words should be noted and learnt at different times (Nation, 2014, p. 32). Schmitt & Schmitt (1995, p. 134) confirm that keeping a track of similar words together might prove counter-productive as it might confuse the learner; therefore, to prevent from interference between the words it is advisable to teach the more frequent word first.

One of very effective ways to record and remember vocabulary is according to Nation (p.30, 2014) so called -keyword technique. This technique is based on thinking of a word in L1 (=keyword) that sounds like the L2 word and secondly of imagining the meaning of the L2 word and the keyword. This form link and meaning link and its actual visualisation should help the learner to remember the L2 word better and prompt the L2 word's meaning (Schmitt, 1997, p.21). The visual element shows to be integral to better word recognition and therefore Schmitt (1997, p.20) recommends to highlight e.g. by underlining the initial letter of a word. These learning strategies or mnemonics help to facilitate the process of learning and remembering.

On the whole, the strategy of keeping vocabulary record should be personalized as every strategy works for someone better and for someone worse; yet keeping the record organised and with connections is common for everyone. The pages or word cards should be large enough to note down additional aspects (Schmitt & Schmitt, 1995, p. 137). Since the students put a great effort to note down the new words, teachers should check their

vocabulary notebooks from time to time and make sure they do not include errors as the learning would be then inefficient (Schmitt & Schmitt, 1995, p. 140). As a result, we should encourage the students to find their own strategies as this will help them in progressing and remembering the vocabulary much easier. The organised record of the words in some way has shown that the subsequent recall is improved (Schmitt, 1997, p. 19).

Remembering Vocabulary

The teacher's and student's goal is mutual - to remember the new learnt words and to be able to recall them under whatever condition. Nation (2014, p. 44) mentions so called dual coding theory which approaches words both linguistically and visually and it should help learn the language item better rather than using only one of two ways. On the other hand, one should not get distracted by the pictures whilst learning. If the learners have problems with remembering a word, it should be re-taught and subsequently practised through contextualization where they can use the word as much as possible (Ur, 2007 p.27). According to Schmitt & Schmitt (1995, p. 135) the deeper the mental processing is, such as imagining images of a word's meaning, contemplating the formality of a word or associating a word with other conceptually related words, the more likely it is that the learner will remember the word.

However, the influence of the process of forgetting is steep and to some extent inevitable. It has been proved that the forgetting appears briefly after the end of study period (Schmitt, 1997, p. 23) and decreases after the major loss (Schmitt & Schmitt 1995, p. 136). According to Nagy (as cited in Schmitt, 2007, p. 749) the chances that we learn and retain a word from one exposure is about 5%-14%. Schmitt (2007, p. 750) confirms that that the major loss occurs soon after the initial exposure, yet the rate decreases with the time. Based on the Ebbinghaus forgetting curve (Ebbinghausova křivka zapomínání n.d.), we forget up to 40% within the first hours after learning. In the following days i.e. around the day 30, the process of forgetting is slighter, it is about 20%. The phenomenon of brief revision within the first hours is crucial and of paramount importance in order to

save the information into a long-term memory and keep it there. Moreover, the next revision should follow the next day, then again within a week and then few weeks later (Nation, 2014, p. 29). Russel (as cited in Schmitt, 1997, p. 24) proposes reviews 5-10 minutes after the end of the learning session, then again in 24 hours, one week later, one month later and finally in six months. As a result, the spaced revision is more effective than accumulating the repetition into an hour and it leads into longer lasting learning as well (Nation, 2014, p. 29). Schmitt & Schmitt (1995, p. 136) talk about the spaced revision as of 'expanding rehearsal'. This enhances students to individualize their learning suggesting that the interval of rehearsing can be increased if they can remember the word or on the other hand shortened if they can't remember it. Yet some researches show that learners might pay more attention to easier words and as a result they might become 'overlearnt' whereas more difficult words tend to be 'underlearnt' (Schmitt & Schmitt, 1995, p. 136).

To summarise, the teacher plays a crucial part when speaking of learning new vocabulary especially with the beginners. They are usually the persons who choose and introduce the new vocabulary and decide what lexical items will be taught and learnt and how. Schmitt & Schmitt (1995, p. 137) recommend to introduce a number of learning strategies and techniques at the beginning of the course and then let the students decide which one they want to use, alternatively they can mix them depending on their preferences. Particularly the introduction of the ways of learning new vocabulary can have an impact on the further development and the students' techniques and strategies. Therefore, at the very beginning the teacher should keep an eye on the students' ways of recording new lexical items as it will help them in the future to learn on their own.

Autonomous Learning

Learners should get as much exposure to the language as possible in order to make a real progress. Yet learning itself is such a long and complex process that it is impossible for teachers to cover the whole language system within classes. Therefore, it is important that students learn not only during the class time but they are also encouraged to learn the

language outside the classroom. Students should be promoted to develop their own learning strategies in order to be exposed to the language as much as possible and to be able to learn and work independently outside the classroom (Harmer, 2006, p. 335). Technology appears to be one of the tools that can support learners' autonomy as it can be used independently after the academic time (Clark, 2013, p.32). Moreover, instructional technology keeps the learning individualised and tailored as the students try to meet their own requirements and needs (Clark, 2013. 28). However, it is the teacher who plays a key role when conducting and actively motivating them for learning on their own (Thornbury, 2007, p. 159). Most of the western approaches and methods see the teacher as a helper and guide rather than the source of knowledge and authority (Harmer, 2006, p. 94). However, not all educational systems and traditions assign such an importance to active participation and autonomous learning. This might be problematic especially if a student and a teacher come from two different educational cultures as their teaching-learning beliefs and expectations will differ. Therefore, the methods and strategies for autonomous learning should be introduced and promoted gradually. To put it into a context of learning English vocabulary, students should first reflect and discuss either with the teacher or among themselves what helps them to remember the unknown or difficult words or why they remember certain words and the others keep forgetting (Harmer, 2006, p. 336). Based on their answers and individual needs, students then develop personal plans that help them to reach their goals. Including the technology into their autonomous learning should support the sense of control and their personal responsibility (Clark, 2013, p. 28). Harmer (2006, p. 335) points out that despite no resistance to self-directed learning some students might be more successful as autonomous learners than the others only because of their learning style. Therefore, the teacher should offer the students a range of learning strategies they can choose from in order to promote the autonomous learning. Schmitt (2007, p. 755) confirms that learners can do much vocabulary learning independently, once the teachers provides them and make them aware of various vocabulary learning strategies. The choice of the strategies, according to Harmer (2006, p. 336) should be also based on students' level of proficiency as it influences their motivation. Researches show that students tend to use simple memorization, repetition and taking notes on vocabulary (Schmitt, 2007, p. 755). On the other hand, students tend to get de-motivated if it is too easy or beyond their scope. Knowing the level of language proficiency is thus a key component when choosing

a suitable material as well as for the further successful development (Harmer, 2006, p. 336). Schmitt (2007, p. 756) generalises that shallower activities such as rote memorization appears more suitable for beginners compare to advanced learners who can benefit from forming associations or using keyword method. Secondly, the role of motivation and raising the interest in autonomous learning is of paramount importance because we want students to carry on learning even afterwards they leave a course or an institute (Harmer, 2006, p. 343). According to Harmer (2006, p.341) to keep the interest going, students enjoy working collaboratively followed by competing or comparing their knowledge and skills with others. Furthermore, it is essential that students want to get a feedback on their performance in order to know their strengths and simultaneously work on their shortcomings.

Mobile Learning

There might be a misconception that mobile learning equals learning assisted by mobile phones only. However, that is not true. As Hockly (Mobile Learning, 2012.), explains, "mobile learning is learning that takes place via portable, often WiFi enabled, handheld devices" which means that not only smartphones but also e-readers, laptops can be used for m-learning. All these devices mentioned above and any other technological ones that are easily to carry around with you can be used for mobile learning yet mobile phone is very likely to be used by a larger number of learners and teachers as it is the most accessible and affordable one. Pecherzewska & Knot also confirm the fact that mobile phones are most frequently used within the mobile learning projects funded by the European Union since 2001 (as cited in Kukulska-Hume, 2008, p. 271). Secondly, as Sharples suggests and as recent thinking shows m-learning does not have to be understood only by the use of mobile technologies but it can be also classified by the mobility of the learner (as cited in Kukulska-Hume, 2008, p. 273). There is currently no explicit definition of mobile learning (Seipold, 2014) but regardless the formal and informal learning, mobile learning could be classified as learning through "handheld devices and potentially available anytime, anywhere (Kukulska-Hume, 2008, p. 273). As a result, mobile learning gives us a great opportunity to learn whenever and wherever we want using the portable technologies and it also proposes alternatives to traditional learning approaches and techniques.

ESL Applications

With the development of mobile applications there is a great opportunity arisen for the mobile language learning and the smartphones appear to be the best platform to use for individualized informal learning (Godwin-Jones, 2011, p.8). Especially for the possibility to be carried everywhere and for being equipped with microphone, speakers and network connection, smartphones seem to be well suited for delivering language learning and practice (Zilber, 2013, p. 15). There are various applications ó apps, for short, available for both Apple iOS, Android and Windows devices, yet in general the Android apps are more largely available and usually offered for free or for modest cost; and the newer the hardware and software of the devices are, the higher quality the programs allow, for instance audio, video, more content or animation (Godwin-Jones, 2011, p.3). Particularly the audio-visual element gives the ESL learners confidence, better comprehension and keeps them motivated (Clark, 2013, p.22). This is also supported by Clark's research (2013, p.58), which proves that the learners show better vocabulary knowledge and retention if they use visual and audio modes. Yet to select the suitable app might become a burden as the market seems to be abundant in its offer and there were more than 775, 000 apps available as of January 2013 (Deng and Training, 2015, p. 50). As Zilber (2013, p. 16) confirms it is rather challenging and difficult to find such apps that are really compelling, engaging and effective as one cannot rely upon their good rankings in the online shop, for it might do more with the clever marketing than with the quality of the apps (Zilber, 2013, p. 16). The apps supporting the language learning are according to Godwin-Jones (2011, p. 4) based on similar kinds such as flashcard programs, dual language dictionaries, and phrase books. Some apps support synchronization with other devices and some can be downloaded and used for offline study, which might be well appreciated especially when one does not have access to the Internet. According to Zilber (2013, p. 16) a good ESL app should allow its user to complete something within a short time with repeated use, for smartphones are usually used in between other activities. Thus, the ESL apps should focus on one thing and should be designed in small segments (Zilber, 2013, p. 20).

Regardless the content, an app for language learning will not serve its purpose as long as it is boring (Zilber, 2013, p. 17). Therefore, learning apps should feature an entertaining and game-like element. For example, apps might give learners the opportunity to compare their doings with the peers as their results might motivate them in their ongoing effort or learners can collect points and earn rewards by improving their scores. Furthermore, Zilber (2013, p. 17) stresses that ESL apps will not be successful unless it makes learners use it actively, i.e. many apps fail because learners are asked only to read and/or watch and they are not asked to produce anything. On the other hand, students reflect in general more engagement and less anxiety when expressing their ideas in English in a technological environment (Clark, 2013, p. 23) as it might appear to them less threatening and stressful. As a result, when creating an ESL app there should be a number of people who have high expertise in app development, user experience and ESL, and who are preferably native English speakers (Zilber, 2013, p.19). Although the mobile devices and learning apps have been increasingly used within the educational environment, both students and teachers still feel uncertain particularly about the way how to use it effectively to support the language learning. It might result into an inability to follow the speedy technological development and demand as suggested by Blanchard and Farstrup (as cited in Deng and Trainin, 2015, p. 65). However, findings suggest that ESL learners get more engaged and show certain improvements on the vocabulary learning grounds once the technology is incorporated (Clark, 2013, p. 28).

Conclusion

Learning English vocabulary is a formidable task, since the system appears to be not that transparent as compared to other languages like German or Spanish (Schmitt, 2007, p. 745). Therefore the learner has to acquire a certain number of words that are not systematically related (Schmitt, 2007, p. 745). Adolphs & Schmitt (as cited in Schmitt, 2007, p. 746) suggest that knowing 2,000 word families should be sufficient for day-to-day spoken discourse. As a result, the learners should develop right approach and certain techniques that would help him or her to master the new words of 'must-learn category' faster and more effectively (Schmitt, 2007, p. 751). First, the recording and presenting of

new vocabulary should be kept organised and systematic with regard to the learners' age, level and needs. Should the learners know a word truly, following aspects should be introduced: spoken and written forms, the meaning including concept and associations, and the use including grammatical functions and constraints on use (Nation, 2001, p. 27). Naturally the more kinds of the word knowledge we possess, the more likely it is that we use the word in the right context (Schmitt, 2007, p. 748). For better mastering, the word should be also presented along with examples and put into context as well as perceived by as many senses as possible, for instance visual support by images. Thus, one should take into consideration that lexical knowledge and word learning is an incremental process and not all aspects must be learnt simultaneously (Schmitt, 2007, p.749). Moreover, both the learning and the practice should be rather spaced than accumulated; therefore the new words should be learnt and practised in smaller chunks and more often, for it is more likely that the items will be retained better. Particularly the variety of presentation, revisit and usage of the word in different contexts enhances mastering and saving the words into long-term memory. The ESL applications should also take these aspects into account and divide the learning and practise into small segments to support effective learning. Secondly, it is essential that the learners make mistakes, since it is a natural element of learning process, yet they should be made aware of it and get some feedback in order to avoid the same mistake the next time and simultaneously get motivated for further learning. Therefore, the ESL apps should provide the learner with some feedback in a form of, for instance, clapping sound for getting it right or buzzer for mistake. At the same time the learners should be encouraged to learn or practice, for instance by collecting reward points. Last but not least, the learners tend to remember vocabulary better once it is at the beginning of lesson and once it is being personalised, for instance in a form of image, example or own associations. On the other hand, so called interference words such as words of one lexical unit, synonyms or antonyms tend to get mixed and the learners are likely to get confused and hence forget easier. Taken together, Nation advises on teaching the most frequent word of a pair first in order to avoid cross-association (as cited in Schmitt, 2007, p. 753). Moreover, it is also important that the ESL apps let the learners produce his or her knowledge and not just make them replicate as it might lower their interest and engagement. As a result, there are some learning techniques and strategies as mentioned above that are more effective yet cannot be applied to everyone; therefore the developers

of the ESL apps should take into consideration the principles of learning and practising English vocabulary and try to meet the needs and requirements on the educational grounds. The practical part of this thesis focuses on the evaluation of various vocabulary apps and whether they meet the above mentioned criteria for successful vocabulary learning.

III. METHODS

The goal of the study is to evaluate mobile apps designed for independent study of English ESL vocabulary. The condition is that the applications must be designed to be used on handheld mobile devices, i.e. mobile phone, e-readers, laptops or any other portable devices that are allowed the Internet access for initial downloading. For the purpose of this study, smartphone is used as a mobile device. It is essential to set several criteria in order to get the desirable results. Therefore, this chapter is divided into 3 parts: *Google Play store Search*, *Criteria to Limit the Search on Google Play store*, and *Criteria to Evaluate the Selected Applications*. The first part outlines the steps to identify applications for the evaluation on *Google Play*. Then, criteria used for limiting the search on *Google Play* are introduced. At the end, I present criteria used for evaluation and describe the actual steps to evaluate each application.

Google Play store Search

The study began with a search on *Google Play store*. The search focused on mobile applications that teach English vocabulary only. The search was carried out on a smartphone. Since the smartphone is operated by the Android system, the search was limited to Android applications only and to *Google play*.

Being aware of how many applications there might be available on *Google play*, I made use of the limitations that the *store* offers, yet I was disappointed by the fact how limited the advanced search options are. On one hand, it offers the category of education. On the other hand there are no other subcategories provided that would restrict the search for language learning, for example. Secondly, *Google Play* offers various options that can limit the search in terms of price, devices and reviews. Speaking about price, the apps can be either free of charge, paid or both. However, some apps for free offer so called in-app purchases, without which the app does not provide all the advertised features. Unfortunately, there is again no advanced option that would advise upon it. Since the search was done on Samsung Galaxy S III mini, it was restricted to Android applications only. In terms of reviews, the search can be limited by the users' reviews on popularity, i.e.

apps with more than 4 stars. On the other hand, the search does not allow the option to view applications based on the number of downloads.

Furthermore, the search on *Google Play* can be specified in more details by keywords; however neither this option guarantees more precise and desirable results. As Andersen confirms (2013, p. 14) it is difficult to search on *Google Play*, since there is neither consensus on keywords nor search terms for similar apps. Therefore, it is important to find such keywords that would rank the apps among the top search ones. The search engine algorithm places first the keywords that appear in the app title and then the occurrence in the apps description (Andersen, 2013, p. 14). Both for the developer and for the user, it is hence very important to choose the correct keywords within the search, yet it does not guarantee that it would prevent from turning up apps that the user is not looking for. On the other hand, for more effective search, it is advisable to place the keyword phrases within double quotation marks, for example "learn English vocabulary", whereas to limit the search from words you do not want to appear in the results, one has to place a minus sign before the word, for example -children (Andersen, 2013, p. 14). Generally speaking, searching on *Google Play* can be challenging for those who are not aware of the search strategies mentioned above since there is no official guideline available that would advise upon the best way to search.

Criteria to Limit the Search on *Google Play*

To begin with, it is very demanding to find a mutual denominator that would be possible to apply to every application; however some criteria were set to narrow the choice and to bring the most accurate results.

First, I limited the search only on apps free of charge and those supported by Android system within the education category, for Samsung Galaxy S III mini was used for the search. Secondly, I entered the keyword "learn English vocabulary". Having carefully perused the results, i.e. read the description, looked at the screenshots, rating and comments, I came to conclusion that all of the applications were designed for EFL/ESL learners. Therefore, I excluded the abbreviation EFL/ESL from the keyword search since it

only resulted in more apps which were rather focused on overall English learning than on English vocabulary learning in particular. Nonetheless, despite the limitation, the search showed a great number of results. As a consequence, I considered only apps with a number of downloads at a minimum of 50,000 ó 100,000 and higher. Moreover, I wanted to limit the search to show apps only with a rating higher than 4 stars, yet this criterion was eventually excluded because of the app developed by British Council called *MyWordBook*. I wanted to evaluate this particular app, even though its ranking is only 3.8 stars out of 5 (as of April 2016), for I perceived the developer to be one of the leading institutes for ESL/EFL learning worldwide. Last but not least, for the evaluation is focused on application designed for independent study, I excluded all the applications designed for children by putting a minus sign before the words children and kids into the keyword search.

Based on the criteria mentioned above, the number of results was still great so I came to the conclusion and chose to evaluate the first 9 applications available on the *Google Play* that comply with the criteria and requirements as of April 2016:

1. VoLT ó Vocabulary Learning by VoLT
2. English Vocabulary Daily by Mobile SoftVN
3. 13000 English Vocabulary Video by Sovio
4. English with Words Ulilab
5. MyWordBook by British Council
6. Learn English Vocabulary Daily by TFLAT GROUP
7. Vocabulary Builder by Magoosh
8. Vocabulary Trainer Learn English Words Free by Language Course S.L.
9. Learn English 6 000 Words by Fun Easy Learn

Criteria to Evaluate the Selected Applications

The evaluation of apps is related only to those who focus on learning English vocabulary. I downloaded all the selected apps and looked at their features closely from

different points of view. First I looked into the teaching techniques, i.e. the ways and the methods the apps use to introduce new vocabulary, for instance definition or translation and what other tools it includes, such as image or sound, and noted it down. Secondly, I examined each app whether it offers any subsequent practice. If so, I gathered information about the exercises and included it into the table, such as multiple choice or gap fill. Furthermore, I also looked at what type of feedback or revision the apps use if any. Last but not least, I examined the motivational tools both for learning and practice such as collecting reward points or sharing the results with other users as well as the motivation to download the particular app. For example, I looked at the ratings and how often the app has been downloaded; whether it can be used online but also offline or what the choice of levels, topics and instructional languages is. Furthermore, I explored what materials are offered for free and how much it costs to add in-app purchases to upgrade the app's content. Taken together, it includes all the aspects that motivate and make the user download the app.

To sum it up, this chapter looks closely at the way the search on *Google Play* works and it also discusses its benefits and shortcomings of the advanced search and tools. Secondly, it covers the criteria that were used for the app's search on *Google Play* including its results of the 9 selected apps to be evaluated. Thirdly, this chapter discusses shortly the criteria and motivations that were carefully considered for each app. The evaluation criteria are as followed: criteria for learning, practice, revision, motivation to learn and practice, and motivation to download. This brings us to the main part of the study, which introduces the results and findings of the evaluation and their ties to the theory. It also touches upon the strengths and weakness of the research and its subsequent applications and implications.

IV. RESULTS AND COMMENTARIES

In this chapter, the results of the evaluation of applications designed for English vocabulary are presented. The results are introduced according to individual applications in the following order: *VoLT ó Vocabulary Learning*, *English Vocabulary Daily*, *13000 English Vocabulary Video*, *English with Words*, *MyWordBook*, *Learn English Vocabulary Daily*, *Vocabulary Builder*, *Vocabulary Trainer Learn English Words Free*, and *Learn English 6000 Words*. First, each app is presented one by one and the evaluation results are organised into 5 parts based on the evaluation criteria, i.e. criteria for learning; practice; revision; motivation to learn and practice; motivation to download. It is simultaneously supported by graphs, figures and app's screenshots, which can be found in the appendices. Furthermore, after each app and its results are clearly presented, I do a synthesis of the different aspects. Afterwards I comment on it and point out some of the startling findings alongside with answers of following questions. 1) To what extent are the principles of effective vocabulary learning mentioned in the theoretical part observed? 2) Does the practice follow the above discussed stages and uses such activities, which should enhance and result into successful word retention? 3) To what extent do the reviews and high number of downloads correspond to the quality of the application from a methodological point of view? 4) To what extent is it a question of well elaborated marketing? Finally, conclusions are drawn from the results.

Applications

VoLT ó Vocabulary Learning

Learning. This app introduces the new words through the memory key technique. The memory key associates the word's meaning with life events, funny stories and with sound and/or image resemblance. The word's meaning is then specified by definition, synonyms and antonyms. Moreover, it provides the learners with the word's pronunciation and examples. Last but not least, the words to be learnt are introduced in the alphabetical order, yet it does offer the possibility to skip the letters in the ABC and thus to choose to learn only such words starting with, for example, T. On the contrary, the learners are given an opportunity to search a particular word within the dictionary.

Practice. This application does not propose any practice for the learners.

Revision. If the learners want to revise the learnt word, they have to bookmark it first so it is saved into the revise section. The words are displayed in a non-alphabetical list and the learners revise the words by looking at them and then retrieving their meaning. If the learners are not sure, they can press the hint button which displays them the picture that is used within the learning. By clicking on the word, it shows the memory key card used in the learning section. However, the learners do not get any feedback

Motivation to learn and practice. This application motivates the learners to learn and practice by sharing the words with friends via social networks, emails or other messaging applications.

Motivation to download. This application has been downloaded between 100.000 and 500.000 times and the users' average rating is 4.6 stars out of 5 as of June 2016 (VoLT ó Vocabulary Learning). In general, the comments are positive and the users highly appreciate the memory key method, although there are several complaints about not saying to what category of parts of speech the word belongs. It can be downloaded for free and does not include any other additional in-app purchases. The app can be used offline; however, the sound does not work if it is not connected to the internet network. Moreover, the images do not work either, if they were not downloaded before. Speaking of the language choice, the application works only on English-English basis. Further on, it does

not provide any topic nor level choices, although the developer recommends it those who are preparing for exam like SAT, IELTS, IES, TOEFL etc. (δVoLT ó Vocabulary Learningö).

Taken together, this application features one of the most effective learning methods, the memory key method, and simultaneously to clarify the meaning better it includes synonyms and antonyms, which should be rather avoided, for it interferes and might result into learnersø confusion as Nation (2014, p. 32). In general, the application promotes rather difficult but important English words (δVoLT ó Vocabulary Learningö).

English Vocabulary Daily

Learning. First, the learners select what vocabulary they want to learn, namely *600 TOEIC Words*, *400 TOEFL Must-Have Words*, *5 000 TOEFL/IELTS Words* or *3 420 TOEIC Words*. Furthermore, the course *Business Letters* helps improving writing skills and *Interview Questions* help to prepare and get confidence in interviews. Each category covers usually 12 words, which are introduced through definition. By selecting destination language it is also possible to have the word translated. Furthermore, the learners are provided with example sentences, word families and to what part of the speech the word and its derivations belong to. Moreover each word includes transcription and pronunciation. On the other hand, it does not provide any visual support in a form of images nor videos. Last but not least, the application gives the learners some tips for more effective learning and there is an additional learning support in a form of the word of the day. It pops up every day and the cards include transcription, example and even word families.

Practice. The application consists of 6 courses and it offers practice within the *600 TOEIC Words* and *400 TOEFL Must-Have Words* category. *600 TOEIC Words* section gives the learners the opportunity to practise the recently learnt words in 8 various exercises. Since the activities require active learners' participation and some visual support is also available compare to the learning part, the learners are hence very likely to remember the words once they go through all of the 8 activities. Moreover, the learners can space the practice based on their needs and the spaced repetition should enhance the word retention. Further on, the learners can benefit from the possibility to return to the exercises and re-take them as many times as they want. On the other hand, the section *400 TOEFL Must-Have Words* offers 3 to 4 various exercises per learnt part, but since the learners can again re-take them, the minimum of 7 encounters can be ensured and result into full word retention. Unfortunately, there is no practice available for the *5000 TOEFL/IELTS Words* and *TOEIC Words*, yet it is possible to download an additional app for the practice suggested directly by *English Vocabulary Daily*.

Motivation to learn and practice. This application motivates the learners by collecting reward points and showing learners' scores. Additionally, there is a reminder the prompts to learn and the learners can also share the application across the social networks.

Motivation to download. This application has been downloaded between 100.000 and 500.000 times and the users' average rating is 4.0 stars out of 5 as of June 2016 (English Vocabulary Daily). The comments are generally positive. It can be downloaded for free but fully licensed pro-version can be purchased for £1.55 which removes ads and the learners get more support for all time (English Vocabulary Daily). As promoted the app can be used offline; however, the translation, sound and image for practice require network connection. Speaking of the language choice, the application offers translation into 38 languages, yet the instruction language remains English. Further on, as mentioned above the application consists of 6 categories, which are divided into further lessons or topics that cover both general and business English.

Taken together, this vocabulary application employs definition and translation in order to explain the word meaning supported by word families and parts of speech. It tries to observe the practice rules from a methodological point of view in terms of the variety of exercises and number of word encounters as well as incorporating multi sensual perception. This should result into successful word mastering as well as word retention.

13000 English Vocabulary Video

Learning. This application uses videos or playlist for vocabulary learning with an access to YouTube. The videos are supported with subtitles, which can be easily switched on or off. The learners can take notes within each video, which allows them to write down unfamiliar words or sentences. Since there are many ESL vocabulary learning videos available on YouTube, the learners can take advantage of some of them. What I want to point out about this app is the access of authentic videos such as news or talk shows, which are intended especially for the advanced level.

Practice. The practice focuses on the vocabulary from a sound point of view, meaning that the videos employ spelling of the word in a form of subtitles and simultaneously the learners can hear the pronunciation. Hence, the learners can check their pronunciation of the particular word or the sentence by recording it and afterwards listening to it and comparing it with the original audio. In fact, this is the only application alongside with *MyWordBook* where the learners can practice the word pronunciation, yet it completely lacks any further practice. It provides neither multiple choice nor word cards exercises. Therefore, on the methodological grounds the application absolutely fails, since it does not secure any practice and recycling of new vocabulary items.

Revision. This application does not provide any revision.

Motivation to learn and practice. There is no specific motivation implemented apart from sharing the videos on social networks and/or via other messaging applications and notifications promoting new videos. The learners can be yet motivated by the authenticity and up-to-date videos commenting on the latest happenings in the world.

Motivation to download. This application has been downloaded between 100.000 and 500.000 times and the users' average rating is 4.2 stars out of 5 as of June 2016 (13000 English Vocabulary Video). The comments are very positive and the users also value that it keeps updating with the latest happenings around the worlds. It can be downloaded for free and there are no additional in-app purchases necessary. Since the application provides links and streams from YouTube, the application requires network connection. The videos with the subtitles as well as the instruction language are in English only. Even though the applications informs on adding captions for many languages, there

cannot be other languages found. Further on, the learners can choose videos according to levels ó basic, intermediate, advanced vocabulary alternatively daily vocabulary; or according to a type of examination ó IELTS, TOEIC, TOEFL, GRE; or according to specialisation ó vocabulary for children or specialized vocabulary ((õ13000 English Vocabulary Videoö).

English with Words

Learning. This application introduces the new words through definition and translation. The source of the information is provided by *Cambridge Dictionary*. All words are accompanied by audio pronunciation, usage examples, images as well as transcription. On top of that, it gives so called *Tip* where it offers either some advice or instruction, or states an interesting fact about the word, for example the word onion: "Apples, potatoes and onions all taste the same when you eat them with your nose plugged" or "If you run cold water over the onion and the knife, it will keep you from crying while cutting it" (English with Words). Moreover, the sentences are recorded and the learners can listen to them. In addition, the learners can opt if they want to learn the suggested word or they can even add their own lessons and words. Last but not least, the learners can search for words within the lessons.

Practice. This application gives the learner the opportunity to practice the vocabulary in 9 various exercises. According to the developers, a unique algorithm builds an individual program that improves the learning process, for the words with which the learner have had problems in the past are selectively repeated (English with Words). In general, each activity except for the *correct or false* features the audio and the learner can hear the correct pronunciation, even though it might sound slightly robotic-like. Therefore, if the learners consciously complete each exercise, they should master the words from each section. The practice employs both the drill, for example *correct or false*, where the learner decides whether the definition and image match the translation, as well as game-like element, namely *word search puzzle*, where the learners look up correct English equivalent. Furthermore, the practice is also realised through multiple choice using audio and translation or through typing the word. All of the exercises employ the audio support except for the *correct or false*, which features the visual support alongside with the *word cards* and *typing the word*. On the whole, each lesson is built for one day comprising of 21 to 25 words. Taken together, the exercises meet the requirements of the effective practice, for they call for learners' active participation, they engage the visual and auditory support and they benefit from their variety. Moreover, there is no exercise prerequisite so the learners can opt such activities, whose style suits them the best. As a result, the learners are very likely to remember the vocabulary even though the practice happens without context.

Revision. This application does not provide any revision.

Motivation to learn and practice. The application motivates the learners by collecting reward points and by mastering the learner's personal score. Additionally, there are everyday notifications that remind the learners to catch up on vocabulary learning.

Motivation to download. This application has been downloaded between 100.000 and 500.000 times and the user's average rating is 4.5 stars out of 5 as of June 2016 (English with Words). The comments are mostly positive but since the last update, the learners complain about the unnatural and robotic-like voice, which is used for pronunciation. It can be downloaded for free, yet there are only first five lessons available. For further learning, the learners can purchase each lesson for £6.99. On the other hand, the application runs offline so you can basically learn anywhere. In addition, the learners can learn words if they have command of Russian, German, Spanish, French, Italian, or Japanese. Unfortunately, there is no English-English version of the app. The learning section is not divided according to levels but according to what subject blocks you want to learn. There are in total 26 subject blocks, 335 lessons and over 8 000 words (English with Words).

Taken together, the exercises meet the requirements of the effective practice, for they call for learner's active participation, they engage the visual and auditory support and they benefit from their variety. Moreover, there is no exercise prerequisite so the learners can opt such activities, whose style suits them the best. As a result, the learners are very likely to remember the vocabulary even though the practice happens without context. On the contrary, there are only first five lessons available for free, other must be purchased.

MyWordBook

Learning. This application introduces the new words through definition, which have a source in the *Cambridge Dictionary*. If the learners have chosen a language for translation, there are also translations available. Otherwise the learners can paste their own translation. In addition, it is accompanied by an image and pronunciation as well as an example. Further on, the icon *Word info* provides the learners with additional information such as word class, plural or tense irregularities and it even advises on register, meaning if the word is formal, informal or vulgar. On top of that, the learners can create edit and create their own words alternatively use *My notes* to add extra information about the word, such as own example sentences, opposites or anything that will help the learners remember (öMyWordBookö). Last but not least, the application gives *Learner tips* and advises on how to make use of each section at its best.

Practice. The application by British Council offers 5 various practice activities and the learner can decide whether the practice engages all of the activities randomly or just a particular one. The exercises include gap fill, dictation and 3 types of multiple choice activities, namely image, definition and gap fill. If the learner is not sure about the correct answer, there is an option button displaying a lightbulb in the bottom left corner that drops a hint in a form of definition what the correct answer might be. In addition, if the learners want to challenge them, they can turn on the test mode and hence decide whether the practice should be restricted by time, meaning that the practice is going on for 1, 2, 5 or 10 minutes, or by number of questions, specifically 10, 20 or 30. Similarly to *English with Words*, each pack includes 25 words. The practice includes 5 exercises, which employ the audio visual element. Disappointingly the app does not support any practice of own words. If the learners get a word correct enough times, the word will be moved into *Review* section (öMyWordBookö).

Revision. The learners can revise the words in a list view; however, it only works if translations have been added to the words. It is divided into two sections: *Words I know*, which includes all the words the learners have learnt and *All words*, which include all the words in active wordpacks.

Motivation to learn and practice. The application allows the learners to share their words with friends and vice versa, yet it requires to create an account and essentially network connection. Moreover, the words must include definition and image in order to be shared. Secondly, it informs the learners on their score and progress.

Motivation to download. This application has been downloaded between 100.000 and 500.000 times and the users' average rating is 3.8 stars out of 5 as of June 2016 (õMyWordBookö). The comments are rather contradictory, for the users appreciate the application on the pedagogical grounds but it fails on the technological ones. This might have an influence on such a low rating. The application can be downloaded for free, yet there are only 75 pre-installed new words. For further learning, the learners must purchase packages with more words for £0.79 ó £1.49 based on their level or interest. On the other hand, the application runs offline so you can learn anywhere. Additionally, the learners can choose a language for instructions and translations in Chinese, Italian, Japanese, or Spanish. However, if you do not have command of either of these languages, you can set international English as an instruction language and add your own translation. Speaking of the level, the words are mapped to elementary, intermediate and advanced level. There are two ways how to opt the level. Either the learners know it and they select it, or they take a test comprising of 18 questions that assesses their level according to Common European Framework of Reference (CEFR). Last but not least, there learners can choose what topic they need to practice, namely clothes, food, general, sport, or transport.

In general, all sections are highly organised; it follows the methodological rules and implements the audio-visual element or exercise variety. The learners can personalise or even create their own words and share it with friends, yet it is not possible to practice them. On the other hand, the test mode within the practice challenges and check the learners' knowledge and the review ensures full word retention.

Learn English Vocabulary Daily

Learning. The new words are listed underneath each other and their meaning is introduced through a translation and example usage. It is supported by pronunciation as well as transcription; however, the words are not accompanied by images nor definitions. Generally speaking, levels consist of 16 lessons and the number of new words per lesson varies. For instance, the lesson called *At school* contains 44 words, while *Staying healthy* only 5. Further on, the learners can create their own cards with words including the definition, translation, examples and transcription. Last but not least, the learners can learn new words through the function of the word of the day that pops up daily on the device's screen.

Practice. There are various mini games available that help to practice the words. The exercises are based on drill and the learners match the correct translation to the English equivalent, type the word translation from the letters provided or choose the correct answer from the multiple choice. The games are based on saving animals and the more one learns and practices, the more animals one can save, namely fish, frog or panda. Secondly, the learners can also practice their pronunciation by recording it and listening to it. Afterwards, they can have it checked and compared to the original audio.

Revision. There is no revision available.

Motivation to learn and practice. The application uses various motivational tools. First, there is a table available that compares the learners' doings with other users. Secondly, the learners also collect points and by completing at least of 15% vocabulary, they automatically unlock the next level instead of purchasing it a premium version. Moreover, the learners can chat with foreigners who have the same level, i.e. beginner, intermediate or advanced and it also provides the chat history. However, it requires the network connection and one needs to log in. Last but not least, a notification can be set that reminds word a day. It allows the learners to choose how many times a day the word should be reminded, what time and what day in a week. Moreover, your own new vocabulary can be added to *Reminder*. The flashcards can include definitions, translations, examples and even transcriptions.

Motivation to download. This application has been downloaded between 1.000000 and 5. 000 000 times and the users' average rating is 4.3 stars out of 5 as of June 2016 (öLearn English Vocabulary Dailyö). The comments are mainly positive, yet some users require to fix the incorrect translations provided, especially of the Arabic origin. The application can be downloaded for free but the software can be upgraded to premium version, which unlocks the levels and prevents from advertisements. The in-app products can be purchased for £1.68 ó £4.33 per item. It is also possible to unlock the next levels by completing at least 15% vocabulary of previous level by either playing game or practising speaking (öLearn English Vocabulary Dailyö). Further on, the application runs offline but the chatting with foreigners on the chosen level requires network connection. Additionally, there is a great choice of languages for translations, yet the language for instructions is English only. Speaking of the levels, there are eight levels including TOEIC vocabulary and each level includes 16 lessons covering various topics and all essential vocabulary.

Vocabulary Builder

Learning. This application introduces the words through definition but in unusual way. The learners choose the best definition for the displayed word. There are four definitions to be chosen of and then option *I'm not sure*. If the learners go for the latter option, then a card including correct definition, pronunciation and example is displayed and it encourages the learners to remember the definition. If the learner selects a wrong definition, then it displays a card as in preceding case and it also informs the learners that he or she will see that word again soon. If the learners select a correct definition, either by sheer chance or because they really know it, a card informing on the definition, pronunciation and example is nonetheless displayed and the learners will not see this word for a while.

Practice. The practice is included in the learning stage and it is based on the multiple choice where the learners select the most suitable definition.

Revision. This application uses spaced repetition within the learning and practice stages and the words keep being repeated until they are mastered.

Motivation to learn and practice. At the very beginning, there is a quick quiz trying to find out why the learners want to improve their vocabulary in order to set a clear goal. The application motivates its learners by mastering levels to unlock new harder words. Secondly, it is possible to challenge a random learner with the same level proficiency and you play against each other. It wins the person who answered more correct answers. It is yet necessary to create an account. Last but not least, you can track your progress and it also reminds the users to learn.

Motivation to download. This application has been downloaded between 1. 000 000 and 5. 000000 times and the users' average rating is 4.2 stars out of 5 as of June 2016 (Vocabulary Builder). The comments are generally very positive. The application can be downloaded for free and there are no additional in-app purchases required. Additionally, the application runs offline but it needs the internet access for initial course downloading and the sound. Further on, this application uses English for both instructions and vocabulary introduction. Speaking of the levels, there is vocabulary available for basic,

intermediate or advanced within the following sections: general/GRE, SAT or TOEFL/English Learner Words.

Taken together, this application uses quiz to introduce the new words and the words are repeated until being mastered. The word cards include definition, example sentences and audio pronunciation. Moreover, the learners have to master the previous level in order to unlock the next one for there are no in-app purchases.

Vocabulary Trainer ó Learn English Words Free

Learning. This application introduces the words through word cards. The word cards include translations audio pronunciation and images. First, the learners choose how many words they want to learn per session, i.e. 7, 14, 21, or 28 and how fast by adjusting the learning speed. Then, the learners choose the lessons regime, i.e. Superlearning, Quiz, or both. Superlearning is supported by optional relaxation music, which increases student memory capacity (ðVocabulary Trainer ó Learn English Words Freeö). Moreover, the learners can add their own courses with their own vocabulary lists. The application also gives the opportunity to listen to American and/ or British radios and read news published by American *CNN* and *Huffington Post* or by British *The Guardian* and *Daily Mail* (ðVocabulary Trainer ó Learn English Words Freeö). Although the application runs offline, to take advantage of the radios and online news, it requires network connection. Last but not least, the application also employs so called passive sleep learning, meaning that after 20-30 minutes of falling asleep there is a 90 minute phase during which a playback of 60 most recently listened words will be played, yet the researches have shown no sign of interference with the sleep quality (ðVocabulary Trainer ó Learn English Words Freeö). This should result into better vocabulary memorisation.

Practice. The practice happens through 7 various exercises. First, the learners listen to an audio in L2, then they choose the correct translation supported by an image. This exercise is called dictation. Secondly, based on the audio in L1 and picture, the learners type the correct English translation from number of letters offered. This exercise is called letter puzzle. Thirdly, there are three types of exercises based on multiple choice, i.e. choose the most suitable image based on audio in L1; L2 word or multiple choice of the first letter, where the learners listen to L1 translation and choose such letter what the L2 word starts with. Further on, the learners listen to a L2 word and type it down with providing correct spelling. This exercise is called written response. Last but not least, the practice happens through own retrieval and the learners assess themselves in terms of how well they can remember the word by pressing following buttons: 1) No; 2) Yes and repeat for long-term memory; 3) Yes, very well and never repeat. On the whole, the learners can choose only such exercise that suits them the best or if they can select random choice.

Revision. The revision happens through practice and its spaced repetition, which can be set the users themselves, precisely speaking from 1 to 6 repetitions.

Motivation to learn and practice. This application motivates its learners by collecting reward points and subsequent comparison and ranking among other users. The table shows the highest rankings over the past month, week and days. Moreover, the ranking can be displayed according to countries, dictionaries or the last lesson. At last, to keep the learners motivated, they set their goals. First, why they want to learn the language. Secondly, how many minutes a day they want to engage in learning, which automatically assess how many cards one learns a week. For example, if the learners plan to learn 5 minutes a day, it is 35 minutes a week, which results into 175 cards a week. The learners can switch on the word notifications, which reminds them to learn.

Motivation to download. This application has been downloaded between 1. 000 000 and 5. 000000 times and the users' average rating is 4.6 stars out of 5 as of June 2016 (Vocabulary Trainer ó Learn English Words Free). The comments are in general very positive, with a few exceptions concerning the technical issues. The application can be downloaded for free and it runs offline. Further on, this application offers 34 different languages both for the translations and instructions. Speaking of the levels, it is designed for absolute beginners to advanced levels according to CEFR. Last but not least, the available courses are divided into 5 sections, namely: Most Frequent Words in English (A1-C1 level), Dating Phrases, Practice Business English, Exams (TOEFL, IELTS, TOEIC), and Thematic course (Vocabulary Trainer ó Learn English Words Free).

Taken together, this application uses word cards to introduce the new words. The word cards include translation, audio pronunciation and image. It proposes rapid learning of vocabulary and phrases across all levels and a great range of topics. Concerning the practice and revision, the exercises can be individualised and based on everyone's preferences. Moreover, the application combines drill with an access to authentic materials.

Learn English 6.000 Words

Learning. The application introduces the 6.000 words through word cards. Each word card includes translations, images, phonetic transcription and pronunciation recordings of the whole word as well as individual sounds. The words are selected and logically categorised into 15 main thematic topics and 140 sub-topics, yet the number of words introduced within each sub-topic is difficult to specify.

Practice. The practice happens through 6 test games/exercises. First, the learners match the English words with their equivalent translations. Secondly, the learners listen to a word and based on the audio supported by a picture, they write the English word using the letters provided. The next exercise is based on a very similar principle, the learners look at a picture and type in the missing letters to make the word complete. The following exercises are based on multiple choice. The learners have to select such image that corresponds with the English word or they listen to an audio and choose the appropriate picture. Last but not least, the learners choose the correct word out of two that matches the picture best. On the whole, the learners can choose such exercises that suits them the best or they can have it randomly selected.

Revision. The *Review Manager* allows the learners to review all the words they have learnt during each game

Motivation to learn and practice. The learners earn badges for learning 1, 5, 15, 50 etc words, which enables them to unlock the next levels instead of purchasing them in the store. Secondly, there is a table with statistics informing on the doings, for example total number of learned words or time learning; level completion; words revision; and progress of all four skills. Last but not least, the learners can take advantage of the one word a day notification.

Motivation to download. This application has been downloaded between 5. 000 000 and 10. 000000 times and the users' average rating is 4.5 stars out of 5 as of June 2016 (öLearn English 6.000 Wordsö). The comments are generally positive. The application can be downloaded for free but there are additional in-app purchases required to unlock next levels and/or to disable or remove all ads. In addition, the application runs offline so you can learn anywhere. Further on, this application uses 59 languages for both instructions

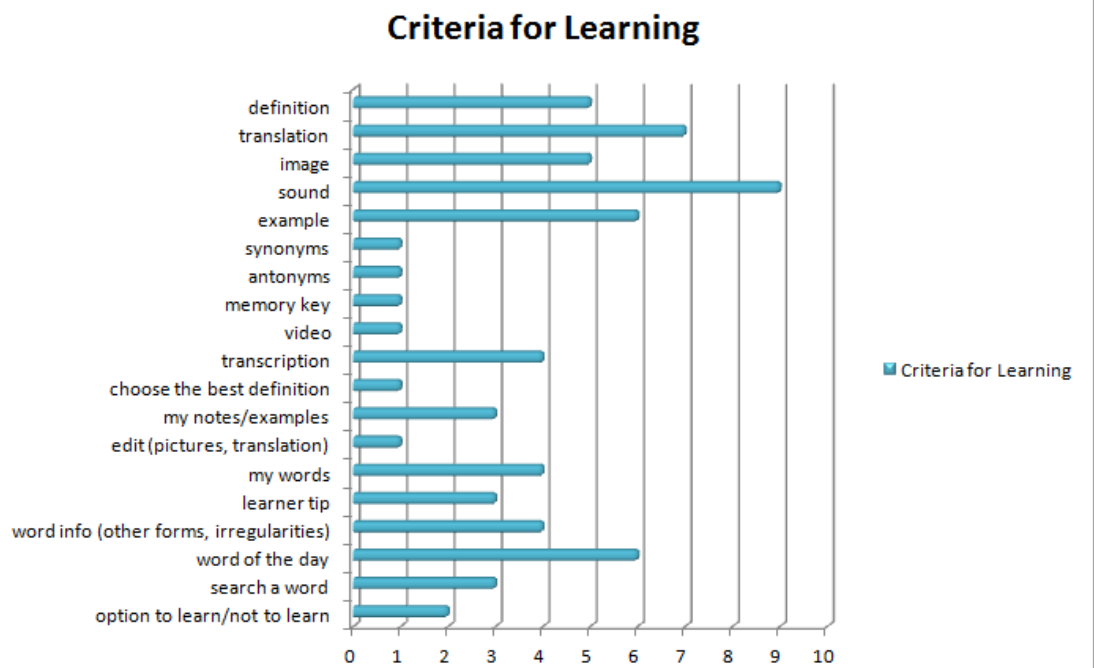
and vocabulary translations (õLearn English 6.000 Wordsö). There are three levels of difficulty, namely for beginners, intermediate, and advanced learners. The level for beginners comprises 1.000 words, the intermediate level 2.000 and the advanced one 3.000. As a result, the learners can enrich their vocabulary with more than 6.000 words. Last but not least, the application covers 15 thematic topics, which are divided into 140 subtopics (õLearn English 6.000 Wordsö).

Taken together, this application employs both visual and audio support for learning and practice. The new words are introduced through word cards and can be practiced within 6 games/exercises. This application can be downloaded for free with in-app purchases and it does not require any network connection. Although the application introduces and practices the words without context using drill, the number of repetition is high enough that the learners are very likely to remember the words very well.

Final results

All the results of the evaluation are presented in the following section.

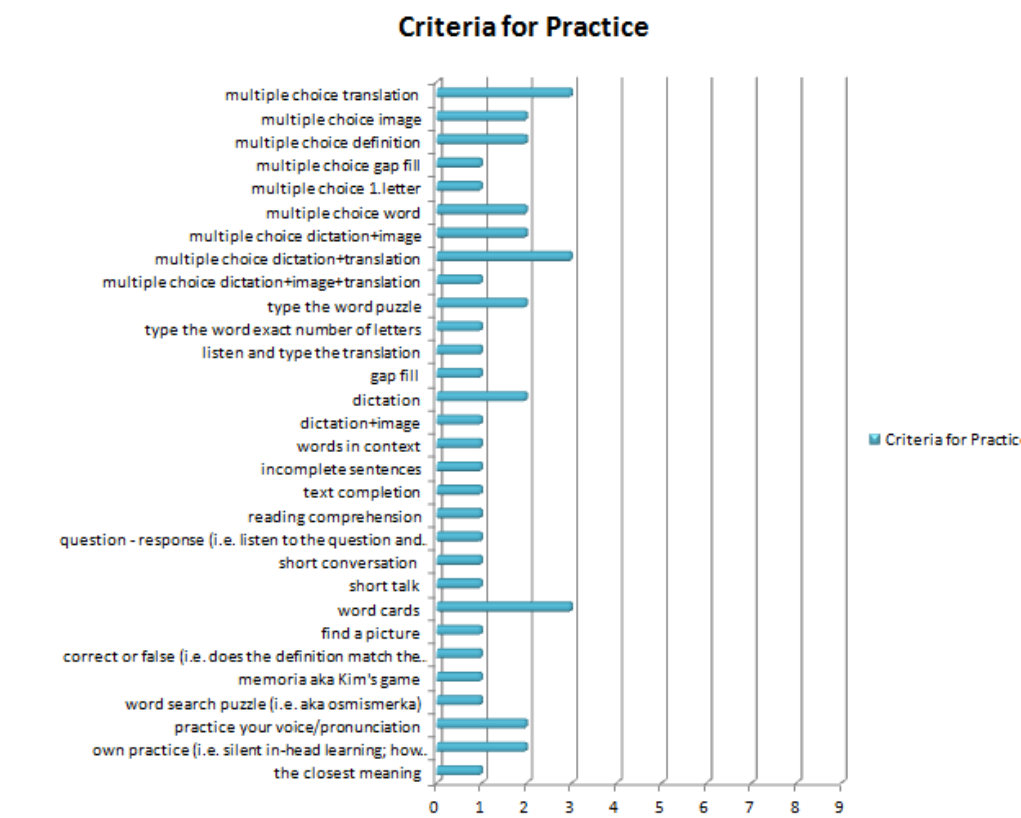
Learning. There are 19 various learning techniques that were identified within the 9 applications. As the figures shows, all of the 9 applications provide the learner with a feature of a word's sound, i.e. word's pronunciation. 7 out of 9 applications introduce a new word through a translation, whereas 5 applications prefer a definition as a way of presenting new words. Only 4 applications combine both the translation and the definition methods, i.e. *English Vocabulary Daily*, *English with Words*, *MyWordBook*, and *Vocabulary Builder*. Furthermore, 6 applications support the presentation of words with examples and 5 apps accompany the textual demonstration with images. There is only one app that does not combine either of the learning techniques mentioned above except for the sound and that is *13000 English Vocabulary Video*. This app uses videos and a number of playlists with a choice of subtitles. Moreover, this application along with two others (*English with Words* and *MyWordBook*) allow the learners to take down any necessary personal notes. On top of that, these 2 apps just mentioned above together with *Learn English Vocabulary Daily* and *Vocabulary Trainer* let the learners write down his or her new words beside the words provided by the developer. 4 out of 9 apps, yet not identical, include transcription and give additional information about a word, such as the word class, other forms or irregularities. There are 3 apps that allow the learners to search for a word within its database and the same number, yet not the same developers, provide the learners with learning tips and how to make the best use out of their application. 2 applications propose the learners an option whether they want to learn the selected word. *VoLT*, is the only app that uses the method of memory key accompanied by the synonyms and antonyms. *Vocabulary Builder*, on the other hand, introduces the new words by choosing the most accurate definition with an option button *I am not sure*. At last, there are 6 apps that feature a possibility of so called 'word of the day', meaning that random vocabulary pops up on the learners' display device. The words might already include a translation, definition, transcription and in some cases even examples or on the contrary, the learners have to look up these features on their own.



Graph 1. Criteria for Learning

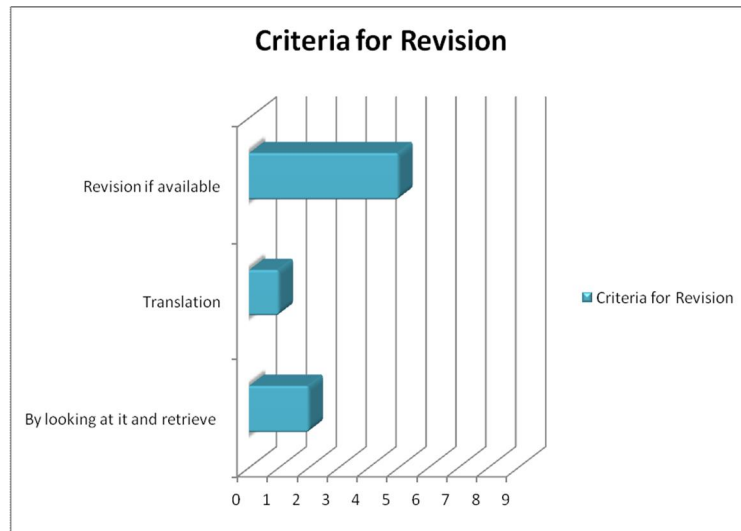
Practice. Applications were evaluated from a point of view of whether they allow the learners to practise the newly acquired vocabulary. By and large, 30 various types of exercises occur across the nine applications. Most of the developers apply various exercises, therefore there is such a great number of exercises, but lower number of their appearance. Therefore, the highest number of occurrence is 3, otherwise they appear twice or only once. There is yet one application that does not provide any practice for the learners, i.e. *VoLT*; however, it allows the learners to revise. On the whole, there are 9 different multiple choice exercises recognised within 6 applications, *13000 English Vocabulary Video* and *Learn English Vocabulary Daily* take advantage of other types of practice. As visible from the graph, multiple choice translation and multiple choice combining the dictation and translation are used by 3 identical developers, whereas other multiple choice exercises namely image, definition, word, and dictation and image are applied twice within the 6 applications. Secondly, 3 applications employ bilingual word cards for practice and there are 2 apps that provide the learners with voice and pronunciation practice and another two promote own practice by retrieval. Furthermore, there are 3 exercises established on the strategy of typing a word either with the exact number of letters that the word contains, or the learners are given more letters, so called word puzzle. As the graph shows the word puzzle is employed within 2 apps, whereas

English with Words employs typing a word of the same number of letters as well as listening to the word first and then type its form. As visible from the figures, there are 18 exercises that occur only once within these 8 apps, for as mentioned above *VoLT* does not propose any practice for the learners.



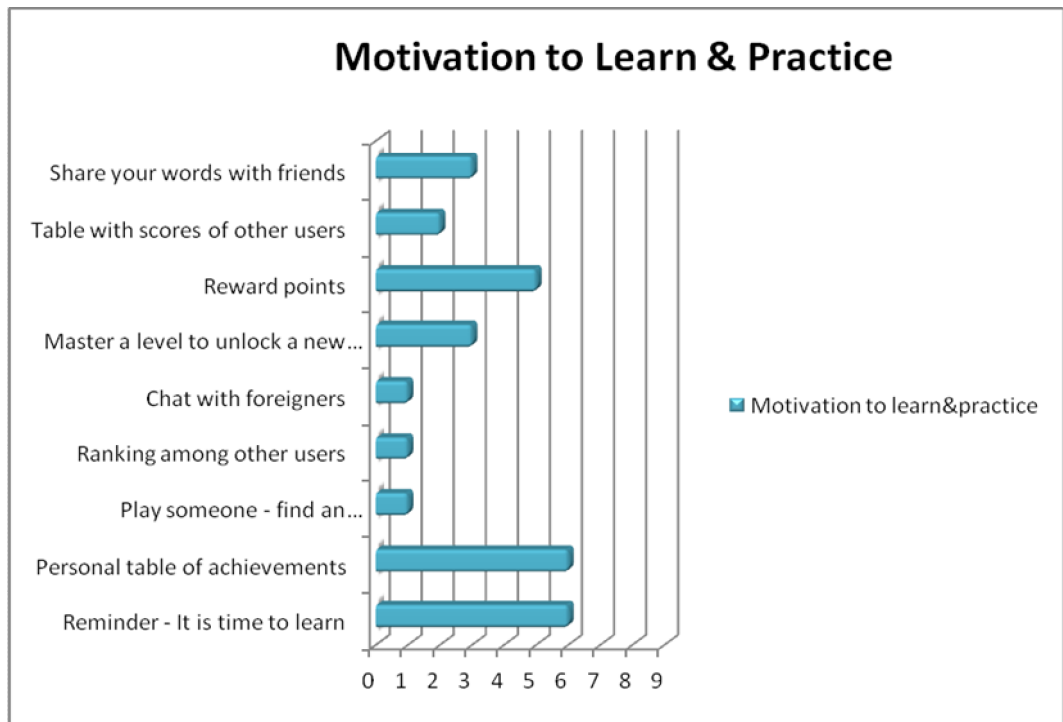
Graph 2. Criteria for Practice

Revision. There are 4 applications out of 9 that give the learners an opportunity to revise the vocabulary, namely *VoLT*, *13000 English Vocabulary Video*, *MyWordBook*, and *Vocabulary Trainer Learn English Words Free*. This happens either through translation or by autonomous retrieving.



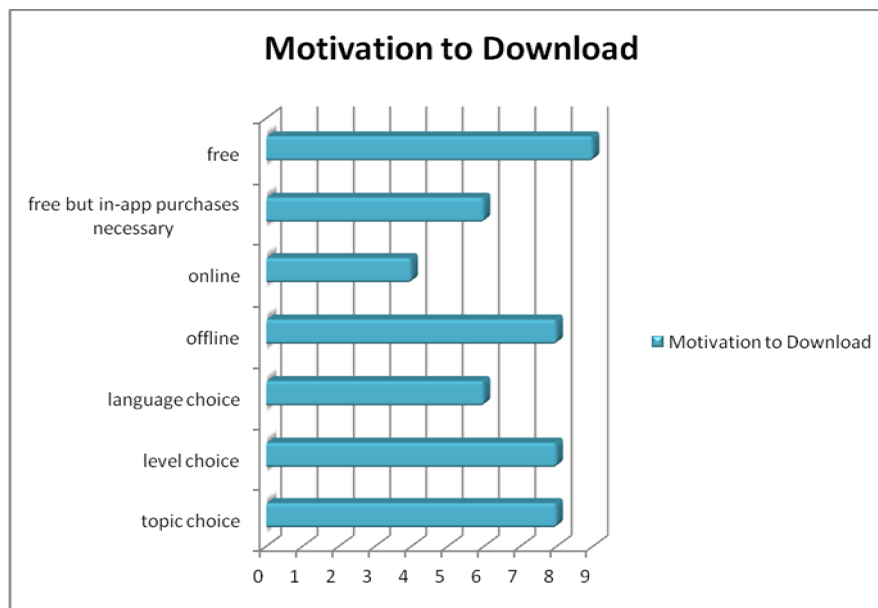
Graph 3. Criteria for Revision

Motivation to learn and practice. The applications developers use various tools to motivate learners encouraging them to learn and practice new vocabulary. 6 applications implement a table of personal scores which makes this method the most common form of motivation employed. 5 applications motivate their learners by collecting reward points and there are also 5 applications that keep on reminding the learners to learn and/or practice. Furthermore there are in total 3 applications which allow the users to share their words with friends and another 3 which motivate the learners by mastering a level, they are allowed to unlock the next one instead of purchasing it.



Graph 4. Motivation to Learn & Practice.

Motivation to download. Last but not least the criterion for evaluation was the motivation to download the particular app. All of the applications can be downloaded for free and there are 6 applications that include in-app purchases. There are 6 applications that run completely offline compared to one that relies completely on network connection, and there are 2 applications that run offline with some additional elements that require internet access such as playing audio, loading an image or chatting.



Graph 5. Motivation to Download

In this part I comment and give answers to the questions mentioned above. 1) To what extent are the principles of effective vocabulary learning mentioned in the theoretical part observed? 2) Does the practice follow the above discussed stages using such activities, which should enhance and result into successful word retention? 3) To what extent do the reviews and high number of downloads correspond to the quality of the application from a methodological point of view? 4) To what extent is it a question of well elaborated marketing?

The applications use a range of learning activities in order to acquire new vocabulary and the learners can choose the one that suits them the best. Underpinned by the theory that bilingual cards work their best at the initial level through the intermediate level (Nation, 2014, p. 28), new words are mostly introduced through definition or translation and they are usually accompanied by the sound or pronunciation, image and examples. Within the practice the apps tries to ensure that the learners meet the word in 7 different ways as suggested by Thornbury (2007, p.24). Moreover, the applications employ the audio-visual support, which according to Clark (2013, p. 22, 58) keeps the learners motivated but most importantly demonstrates better vocabulary knowledge and retention. Last but not least, many applications work with brief practice, which meets Zilber's suggestion that a good ESL application allows the learners to complete something within a

short time (2013, p. 16). As a result, most of the applications work with the effective vocabulary learning methods and the practice consists of a range of various exercises. Therefore, the learners are given a great opportunity to learn and remember the words.

In general the high ratings comply with the quality of the application from a methodological point of view except for *13000 English Vocabulary Video* and *MyWordBook*. The latter one can be highly regarded from a methodological view, for it follows many methodological principles; however its poor rating of 3.8 stars complies rather with its technological issues than the methodological unawareness (British Council). On the other hand, the rating of *13000 English Vocabulary Video* of 4.2 stars corresponds rather with the attractiveness of video than with actual methodological aspects of effective vocabulary learning, for it does not employ any vocabulary learning methods nor exercises for practice.

In this chapter, the results of the research were presented. First, each application is introduced one by one and then a synthesis of all the aspects is outlined. It is followed by comments on the posed questions. The next chapter discusses possible implications for teachers, points of limitation to the research and gives suggestions for further research.

V. IMPLICATIONS

This chapter discusses implication of the research into teaching practice, possible limitations of the research and suggests next steps for further research. In the Implications for Teaching part, I suggest some ideas that might be beneficial for both teachers and learners. The Limitation of the Research outlines the weaknesses of the research and any problems I encountered within doing the research. At last, the Suggestion for Further Research briefly sketches my ideas of follow-up research.

Implications for Teaching

Based on the research, in this part I present some ideas that might be useful for teachers and learners if they want to incorporate apps for English vocabulary learning into the lessons and study. Each application can be implemented within the lessons regarding the learning objectives, learners' level, or the topic. First, the applications offer to learn and practice out of the pre-selected words and to some extent they are also limited to it only; however, there are 4 applications that give the possibility to include learners' own words, which might be convenient for those who attend any English language courses or educate them on their own. Teachers can make use of these applications and propose the learners to download them and every time they meet or they are introduced new word, they can simply type it in and accompany it by definition, translation, usage example, image, or pronunciation. Once the learners have a little bit of spare time while, for example, waiting for a bus, they can simply learn and practice the new words. Moreover, the applications allow the users to share the own words among themselves. As a result, teachers can take advantage of this tool and share with the learners those words they want them to know or vice versa. The learners share the words of their interest with the teacher and he or she can then include them within a lesson to make sure that the learners know them. For example, the learners use the shared words of their interest within some creative writing or include them within some speaking activity based on role plays. Moreover, it keeps the learners motivated, for it is personalised and at the same time they actively take part in the learning process. The applications that feature the possibility of own words are *English with Words*, *MyWordBook*, *Learn English Vocabulary Daily*, and *Vocabulary Trainer Learn English Words Free*.

Secondly, with the launch of YouTube and other video channels there are many ESL videos available, yet the offer is so huge that one can get easily lost and simultaneously it can be time-consuming when searching for the right video. The application *I love English Vocabulary* mediates videos provided by YouTube for ESL learners. Since the videos are divided according to levels and since it is possible to search through key words, the teachers can well utilize the videos within the lessons as an additional material. Moreover, the videos are constantly updated, therefore they can well respond to current affairs and the teachers can use them for warm-ups. Further on, since the videos employ the audio-visual elements, the learners are more likely to associate the meaning of the unknown word with its definition. All videos feature the functions of subtitles, which can be easily switched on and off. The teachers can use the videos with subtitles to practice the suprasegmental parts of speech i.e. stress, intonation, linking etc, which are very often neglected.

Thirdly, if the teachers cover the topics like general business English, business letters or preparation for interviews, I would highly recommend to make use of materials provided by *English Vocabulary Daily*. The business part consists of general business, office issues, personnel, purchasing, financing and budgeting, and management issues (English Vocabulary Daily). Secondly, business letter section informs on a structure and what rules should be observed. Moreover, it includes common vocabulary, some useful words and expressions along with sample emails. At last, the interview part covers the most probable interview questions and answers. Although the two latter mentioned parts do not include any practice, it is worth using it as an additional material for general overview.

Limitation of the Research

It is beyond the scope of this study to assess all the applications designed for independent study of English vocabulary that are available within *Google Play*. With regard to the rapid technological development, only those applications have been evaluated, which were available as of January 2016. Those apps which were released later are not taken into consideration. The study is also limited in terms of number of downloads, for this study does not evaluate any application that has not been downloaded for more than 50. 000 times. Moreover, this study evaluates only those applications with

ratings higher than 3.8 stars out of 5. Last but not least, the research is also limited by researcher bias, since the evaluation is based on my own judgment. The evaluation would be more reliable if the research would be carried out by more examiners.

Suggestions for Further Research

To extend the present study, further research can be suggested. First, due to an unsustainable growth on the technological grounds, this study will need to be regularly revised and revisited so the results are up to date and hence valid and precise. Secondly, since the evaluation examines only those applications designed for learning English vocabulary, the future work can occupy with applications designed for other language skills, namely speaking, listening, reading, and writing, or with applications focusing on learning business English or grammar. Last but not least, further research can examine such applications that deal with learning other foreign languages such as Spanish, French, or German etc. Taken together, there are many possibilities available for further research.

VI. CONCLUSION

The goal of this thesis is to evaluate the applications designed for independent study of English vocabulary. It presents theoretical overview of effective learning strategies and stages of practice in terms of vocabulary learning. As a result, the learners should develop right approach and certain techniques that would help them to master the new words faster and more effectively. First, the record of vocabulary should be kept organised and systematic. Secondly, new vocabulary should be supported by examples and audio-visual element should be utilized. Both vocabulary learning and practice should be realised rather in smaller chunks and often than accumulated. Further on, the revisit and usage of the new words as many times as possible is crucial for saving the words into long-term memory. All these pedagogical aspects should be taken into consideration by applications developers when creating an app for learning English vocabulary.

This thesis evaluates nine applications which are carefully selected according to various criteria specified within the theoretical section. Based on the criteria, the applications are assessed and the findings are presented. On the whole, the applications take into consideration the effective learning methods, such as use of bilingual cards or keyword method. Thanks to the modern devices, the flashcards are supported by images and audio pronunciation alternatively transcription, which enhances the learning and practice process and should thus result into better vocabulary mastering and retention. Moreover, the applications utilize various components that keep the learners motivated, such as collecting reward points, unlocking the next levels or sharing words with friends. In conclusion, pedagogical implications are discussed and in terms of possible suggestions for further research, this study should be revised and revisited in order to correct and up to date results.

REFERENCES

- Andersen, I. (2013). Mobile Apps for Learning English. A Review of 7 Complete English Course Apps: Characteristics, Similarities and Differences. Retrieved from http://skemman.is/stream/get/1946/14524/34549/1/English_BA_thesis_FINAL_.pdf
- Atkinson, R. L. (2003). *Psychologie*. Praha: Portál.
- British Council. (2016). MyWordBook ó Learn English (3.2) [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=com.imf>
- Deng, Q. and Trainin, G. (2015). Learning Vocabulary with Apps: From Theory to Practice. *The Nebraska Educator: A Student-Led Journal*. Paper 29. Retrieved from <http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1033&context=nebeducator>
<http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1033&context=nebeducator>
- Ebbinghausova k ivka zapomínání. Retrieved from <http://www.studium-psychologie.cz/obecna-psychologie/9-zapominani.html>
<http://www.studium-psychologie.cz/obecna-psychologie/9-zapominani.html>
- Fun Easy Learn. (2016). Learn English 6.000 (Version 4.9) [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=com.funeasylearn.english>
- Godwin-Jones, R. (2011). EMERGING TECHNOLOGIES Mobile Apps for Language Learning. *Language Learning & Technology*, Volume 15, pp. 2-11. Retrieved from <http://llt.msu.edu/issues/june2011/emerging.pdf>
<http://llt.msu.edu/issues/june2011/emerging.pdf>
- Guo, H. Analysing and Evaluating Current Mobile Applications for Learning English Speaking. Retrieved from <http://englishagenda.britishcouncil.org/sites/ec/files/Analysing%20and%20evaluating%20current%20mobile%20applications%20v2.pdf>

- Harmer, J. (2006). *The Practice of English Language Teaching*. Essex: Pearson Education Limited.
- Harmer, J. (2001). *How to Teach English*. London: Wesley Longman Limited.
- Hockly, N.(2012). Mobile learning: what is it and why should you care?. *Modern English Teacher*. Volume 21 No. 2, pp. 32-33. Retrieved from https://www.academia.edu/2050979/Mobile_learning_What_is_it_and_why_should_you_care
https://www.academia.edu/2050979/Mobile_learning_What_is_it_and_why_should_you_care
- Kukulska-Hulme, A. and Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, 20(3), pp. 271-289.
- Language Course S.L. (2016). *Learn English Words Free (Version 2.2.11)* [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=net.languagecourse.vt.en>
- Magoosh. (2016). *Vocabulary Builder (Version 1.3.5)* [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=com.funeasylearn.english>
- MobileSoftVn. (2016). *Vocabulary Daily (Version 2.6.1)* [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=com.usoftvn.toeidaily>
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. (2014). *What do you need to know to learn a foreign language*. Retrieved from http://www.victoria.ac.nz/lals/about/staff/publications/paul-nation/foreign-language_1125.pdf
http://www.victoria.ac.nz/lals/about/staff/publications/paul-nation/foreign-language_1125.pdf

- Nordquist, R. Vocabulary Acquisition. Retrieved from <http://grammar.about.com/od/tz/g/Vocabulary-Acquisition.htm>
- Ohm, U. (2015, March). Language Learning and Language Acquisition. Retrieved from <https://www.goethe.de/en/spr/mag/20491362.html>
- Pignot-Shakov, V.. Measuring L2 Receptive and Productive Vocabulary Knowledge, 4 (2012), 37-45. Retrieved from https://www.reading.ac.uk/web/FILES/english-language-and-literature/elal_LSWP_Vol_4_Pignot_Shahov.pdf
- Schmitt, N. (2007). Current trends in vocabulary learning and teaching. Cummins, J. and Davison, C. (eds.), *The International Handbook of English Language Teaching*, Vol. 2. Springer. Retrieved from <http://www.norbertschmitt.co.uk/>
- Schmitt, N. (1997). Vocabulary learning strategies. In Schmitt, N. And McCarthy, M. (eds.), *Vocabulary: Description, Acquisition, and Pedagogy*. Cambridge University Press. Retrieved from <http://www.norbertschmitt.co.uk/>
- Schmitt, N. and Schmitt, D. (1995). Vocabulary notebooks: Theoretical underpinnings and practical suggestions. *English Language TESOL BULLETIN* 6, 2: 9-16. Retrieved from [http://www.norbertschmitt.co.uk/uploads/schmitt-n-and-schmitt-d-\(1995\)-vocabulary-notebooks-theoretical-underpinnings-and-practical-suggestions-english-language-teaching-journal-49-2-133-143.pdf](http://www.norbertschmitt.co.uk/uploads/schmitt-n-and-schmitt-d-(1995)-vocabulary-notebooks-theoretical-underpinnings-and-practical-suggestions-english-language-teaching-journal-49-2-133-143.pdf)
- Scrivener, J. (2005). *Learning Teaching. A Guidebook for English Language Teachers*. Second Edition. Oxford: Macmillan Publishers Limited.

- Sovio. (2016). 13000 English Vocabulary Videos (Version 1.3.3). [Mobile application software]. Retrieved from English
<https://play.google.com/store/apps/details?id=com.vocvideos>
- TFLAT-GROUP. (2016). Learn English Vocabulary Daily (Version 1.3.7) [Mobile application software]. Retrieved from
<https://play.google.com/store/apps/details?id=com.tflat.english.vocabulary>
- Thornbury, S. (2007). How to Teach Vocabulary. Essex: Pearson Education Limited.
- Ulibab. (2016) English with Words (Version 3.2) [Mobile application software]. Retrieved from <https://play.google.com/store/apps/details?id=air.ru.uchimslova.words>
- Ur, P. (2007). A Course in Language Teaching. Cambridge: Cambridge University Press.
- VoLT. (2016). VoLT ó Vocabulary Learning (Version 2.7.1) [Mobile application software]. Retrieved from
<https://play.google.com/store/apps/details?id=com.rpublication.volt.volt>
- Zhong, H. (2011). Learning a word: From receptive to productive vocabulary use, 116-126. Retrieved from http://iafor.org/archives/offprints/acll2011-offprints/ACLL2011_0102.pdf
http://iafor.org/archives/offprints/acll2011-offprints/ACLL2011_0102.pdf
- Zilber, J. (2013). SMARTPHONE APPS FOR ESL: Finding the Wheat Amidst the Chaff. CONTACT Magazine, 15-21 Retrieved from
http://www.teslontario.net/uploads/pinterest/contactarticles/Apps_Zilber.pdf
http://www.teslontario.net/uploads/pinterest/contactarticles/Apps_Zilber.pdf

APPENDIX

Appendix 1

Evaluation tables

Criteria for learning	VoLT	English Vocabulary Daily	13000 English Vocabulary Video	English with Words	MyWordBook	Learn English Vocabulary Daily	Vocabulary Builder	Vocabulary Trainer	Learn English 6,000 Words
definition	yes	yes	no	yes	yes	no	yes	no	no
translation	no	yes	no	yes	yes	yes	yes	yes	yes
image	yes	no	no	yes	yes	no	no	yes	yes
sound	yes	yes	yes	yes	yes	yes	yes	yes	yes
example	yes	yes	no	yes	yes	yes	yes	no	no
synonyms	yes	no	no	no	no	no	no	no	no
antonyms	yes	no	no	no	no	no	no	no	no
memory key	yes	no	no	no	no	no	no	no	no
video	no	no	yes	no	no	no	no	no	no
transcription	no	yes	no	yes	no	yes	no	no	no
choose the best definition	no	no	no	no	no	no	no	no	yes
my notes/examples	no	no	yes	yes	yes	no	yes	no	no
edit (pictures, translation)	no	no	no	no	yes	no	no	no	no
my words	no	no	no	yes	yes	yes	no	yes	no
learner tip	no	yes	no	no	yes	no	yes	no	no
word info (other forms, irregularities)	no	yes	no	yes	yes	no	no	yes	no
word of the day	no	yes	yes	yes	no	yes	no	no	no
search a word	yes	no	yes	yes	no	no	no	no	no
option to learn/not to learn	no	no	no	yes	no	no	no	yes	no

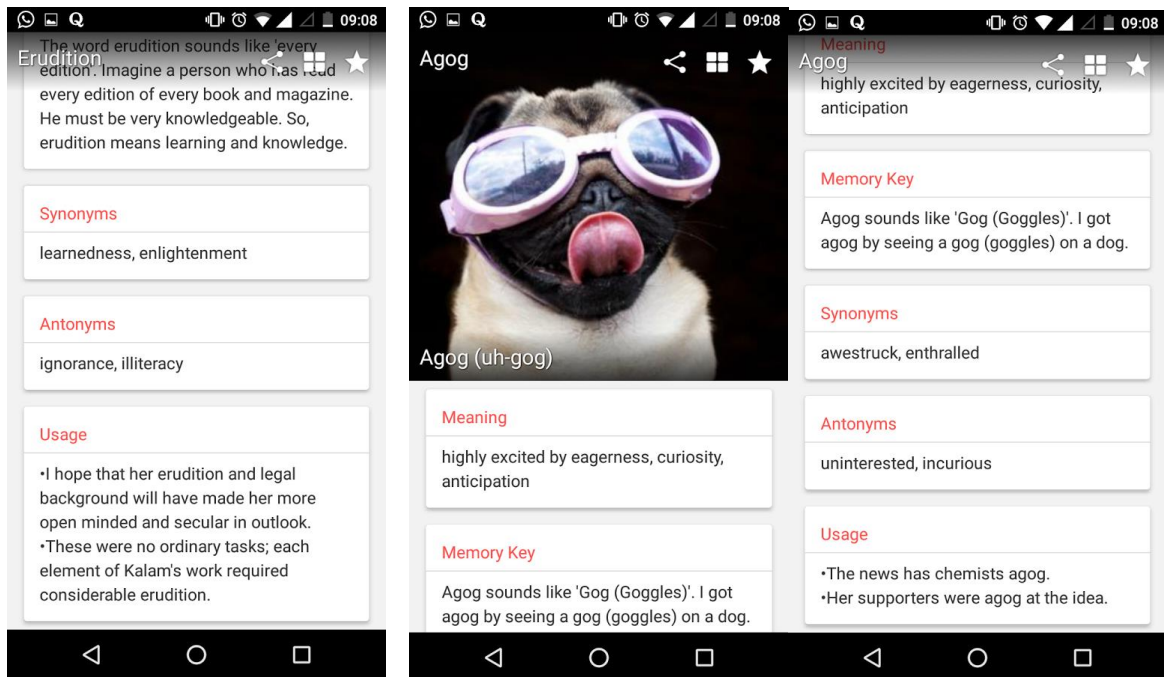
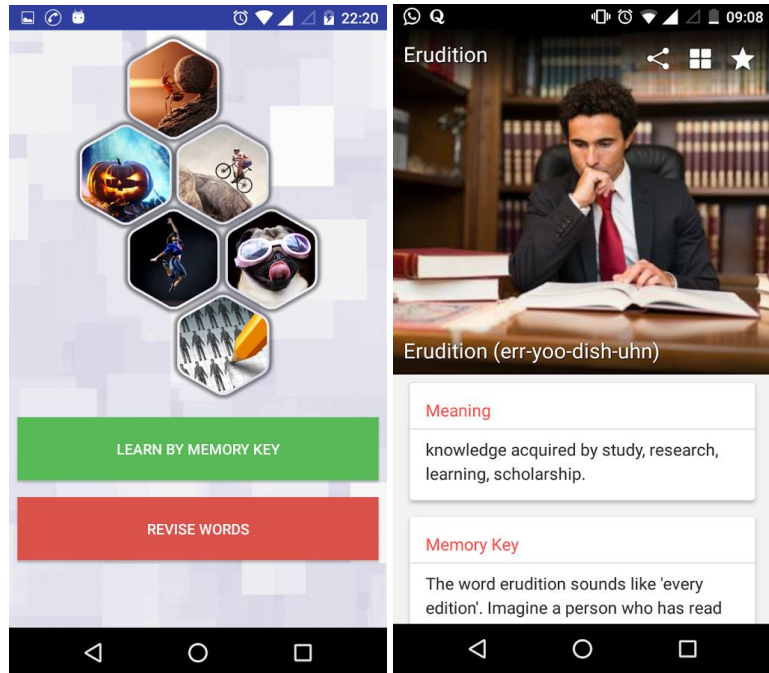
Criteria for practice	VoLT	English Vocabulary Daily	13000 English Vocabulary Video	English with Words	MyWordBook	Learn English Vocabulary Daily	Vocabulary Builder	Vocabulary Trainer	Learn English 6,000 Words
multiple choice translation	no	no	no	yes	no	no	no	yes	yes
multiple choice image	no	no	no	no	yes	no	no	yes	no
multiple choice definition	no	no	no	no	yes	no	yes	no	no
multiple choice gap fill	no	no	no	no	yes	no	no	no	no
multiple choice 1.letter	no	no	no	no	no	no	no	yes	no
multiple choice word	no	yes	no	no	no	no	no	yes	no
multiple choice dictation+image	no	yes	no	no	no	no	no	no	yes
multiple choice dictation+translation	no	no	no	yes	no	no	no	yes	yes
multiple choice dictation+image+translation	no	no	no	no	no	no	no	no	yes
type the word puzzle	no	no	no	no	no	no	no	yes	yes
type the word exact number of letters	no	no	no	yes	no	no	no	no	no
listen and type the translation	no	no	no	yes	no	no	no	no	no
gap fill	no	no	no	no	yes	no	no	no	no
dictation	no	no	no	no	yes	no	no	no	no
dictation+image	no	yes	no	no	no	no	no	no	yes
words in context	no	yes	no	no	no	no	no	no	no
incomplete sentences	no	yes	no	no	no	no	no	no	no
text completion	no	yes	no	no	no	no	no	no	no
reading comprehension	no	yes	no	no	no	no	no	no	no
question – response	no	yes	no	no	no	no	no	no	no
short conversation	no	yes	no	no	no	no	no	no	no
short talk	no	yes	no	no	no	no	no	no	no
word cards	no	no	no	yes	no	yes	no	no	yes
find a picture	no	no	no	no	no	no	no	no	yes
correct or false	no	no	no	yes	no	no	no	no	no
memoria aka Kim's game	no	no	no	yes	no	no	no	no	no
word search puzzle	no	no	no	yes	no	no	no	no	no
practice your voice/pronunciation	no	no	yes	no	no	yes	no	no	no
own practice	no	no	no	yes	no	no	no	yes	no
the closest meaning	no	yes	no	no	no	no	no	no	no

Criteria for revision	VoLT	English Vocabulary Daily	13000 English Vocabulary Video	English with Words	MyWordBook	Learn English Vocabulary Daily	Vocabulary Builder	Vocabulary Trainer	Learn English 6,000 Words
Revision if available	yes	yes	no	no	yes	no	yes	yes	no
Translation	no	no	no	no	yes	no	no	no	no
By looking at it and retrieve	yes	yes	no	no	no	no	no	no	no
Motivation to download	VoLT	English Vocabulary Daily	13000 English Vocabulary Video	English with Words	MyWordBook	Learn English Vocabulary Daily	Vocabulary Builder	Vocabulary Trainer	Learn English 6,000 Words
PLATFORM									
free	yes	yes	yes	yes	yes	yes	yes	yes	yes
free but in-app purchases necessary	no	yes	no	yes	yes	yes	yes	yes	yes
online	yes	no	yes	no	no	yes	no	no	no
offline	yes	yes	no	yes	yes	yes	yes	yes	yes
number of stars	4,6	4	4,2	4,5	3,8	4,3	4,2	4,6	4,5
number of downloads	100,000-500,000	100,000-500,000	100,000-500,000	100,000-500,000	100,000-500,000	1,000,000-5,000,000	1,000,000-5,000,000	1,000,000-5,000,000	5,000,000-10,000,000
CHOICE									
language choice	English	yes	English	yes	yes	yes	English	yes	yes
level choice	no	yes	yes	yes	yes	yes	yes	yes	yes
topic choice	no	yes	yes	yes	yes	yes	yes	yes	yes
Motivation to learn and practice	VoLT	English Vocabulary Daily	13000 English Vocabulary Video	English with Words	MyWordBook	Learn English Vocabulary Daily	Vocabulary Builder	Vocabulary Trainer	Learn English 6,000 Words
Share your words with friends	yes	no	yes	no	yes	no	no	no	no
Table with scores of other users	no	no	no	no	no	yes	no	yes	no
Reward points	no	yes	no	yes	no	yes	no	yes	yes
Master a level to unlock a new level	no	no	no	no	no	yes	yes	no	yes
Chat with foreigners	no	no	no	no	no	yes	no	no	no
Ranking among other users	no	no	no	no	no	yes	no	no	no
Play someone - find an opponent	no	no	no	no	no	no	yes	no	no
Personal table of achievements	no	yes	yes	yes	yes	no	yes	yes	yes
Reminder - It is time to learn	no	yes	yes	yes	no	yes	no	no	no

Appendix 2

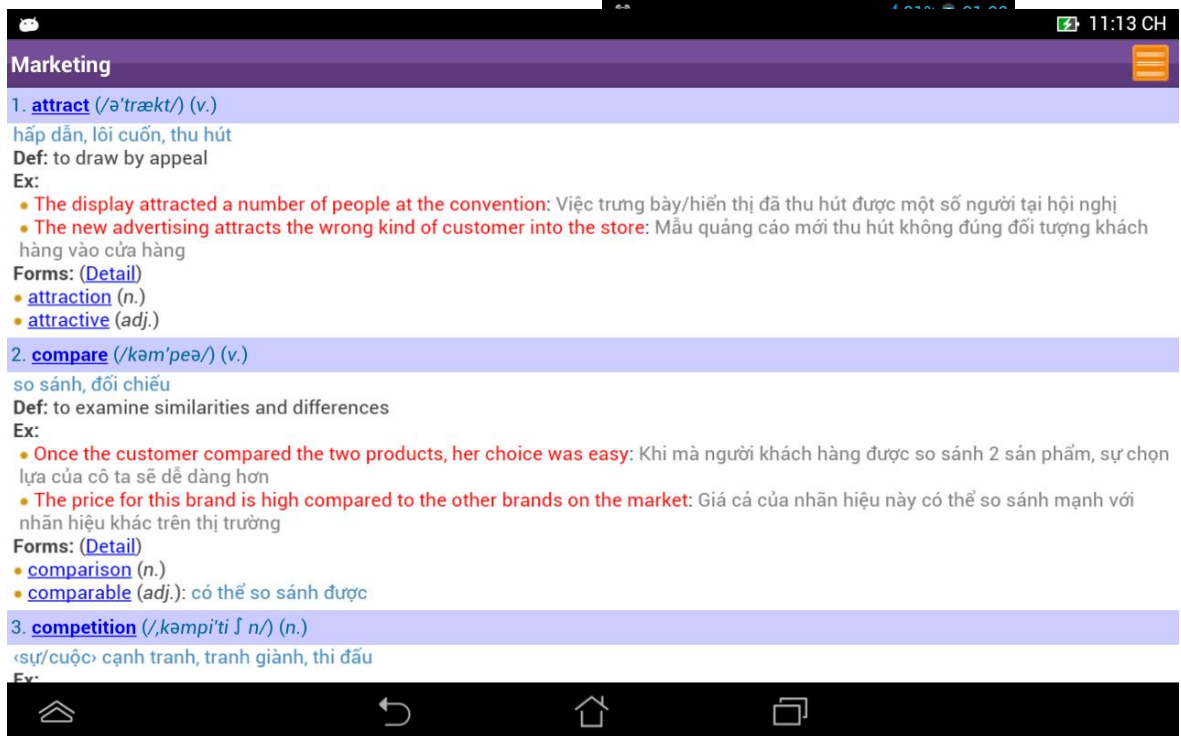
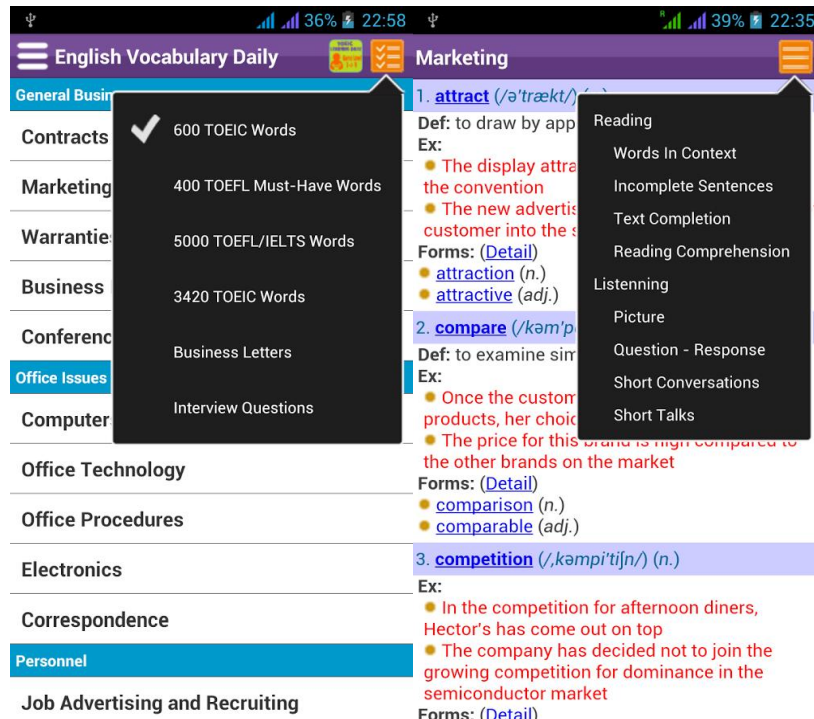
Screenshots from applications¹

VoLT 6 Vocabulary Learning by VoLT



¹ All screenshots are copied from the developers' respective *Google Play* profiles

English Vocabulary Daily by Mobile by SoftVN



13000 English Vocabulary Video by Sovio

The screenshot shows a mobile application interface for 'VOCABULARY VIDEOS'. At the top, there are two tabs: 'NEW' and 'TOPICS'. The main content area displays a list of video thumbnails with their titles, durations, difficulty levels, and view counts. The sidebar menu on the right contains a list of topics, each represented by a colored circle with a letter: E (English FunCast), D (Daily Vocabulary), B (Basic Vocabulary), I (Intermediate Vocabulary), A (Advanced Vocabulary), and I (IELTS).

Thumbnail	Title	Duration	Level	Views
	Point Break - Trailer 2 [HD]	2:32	Basic	5543719 views
	Ellie Goulding - On My Mind	4:05	Intermediate	45673935 views
	Why Do Autumn Leaves Change Color? - Instant Egghead #51	2:30	Basic	28523 views
	BBQ with Franklin: Pork Ribs part 1	9:56	Intermediate	449607 views
	English lesson - Common Past Time Expressions (Learn English)	10:04	Advanced	44364 views
	Tips for surviving a long haul flight CharliMarieTV			

The screenshot shows a mobile application interface with a video player and a list of search results. The video player is displaying a video titled 'World's Most Asked Questions: W...' with a progress bar at 00:30. A menu is open over the video, showing options: 'Show Auto Caption', 'Show Note', 'Add favorite', and 'Share'. Below the video player, there is a text overlay: "What if, like, we gave you the most asked questions in the world?" with buttons for 'Listen', 'Speak', and 'Record'. The search results list includes several video titles related to 'love' and 'English Vocabulary'.

World's Most Asked Questions: W...

“What if, like, we gave you the most asked questions in the world?”

Listen Speak Record

That seemed like a really good idea to us, so they did that. And then after filtering out the ones about Kim Kardashian, we were left with a list of ten of the most googled scientific questions ever. This is the World's Most Asked Questions

Search results for 'love':

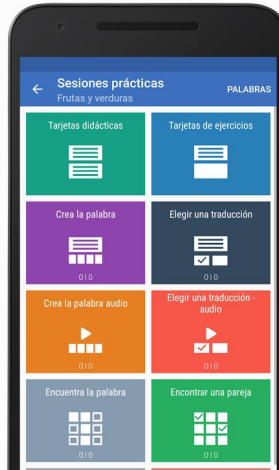
- 10 interesting Phrasal verbs you would lo... Video
- English Conversation - I love listening to... Video
- Lesson 8 - Love and Marriage - English V... Video
- Lesson 9 - Synonyms for Love - English V... Video
- 10 interesting Phrasal verbs you would lo... Video
- English Vocabulary - Love, Dating, and Re... Video
- Lesson 8 - Love and Marriage - English V... Video
- Lesson 9 - Synonyms for Love - English V... Video

English with Words by Ulilab

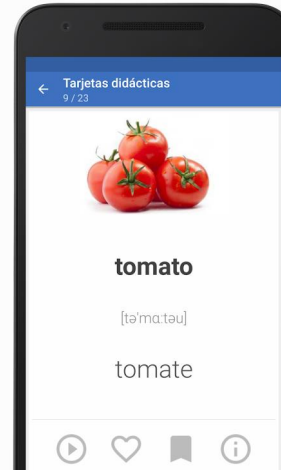
26 subjects, 330 lessons,
and over 8,000 words



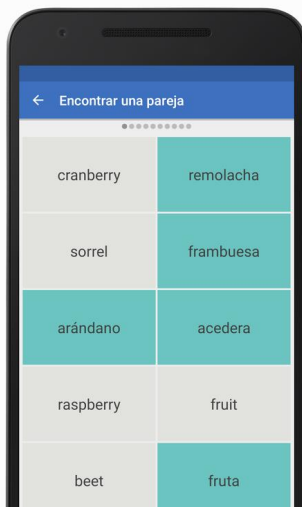
10 unique practice sessions,
memorize words easily



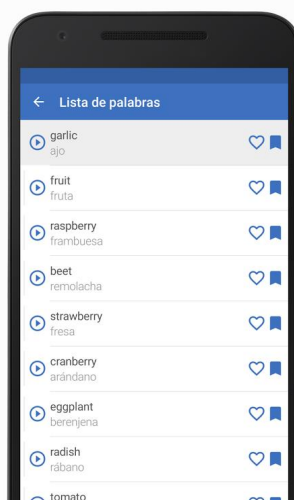
All words are accompanied by
pronunciations and usage examples



Each practice session teaches
a real habit in using the language



Simple addition of your
own lessons and words



MyWordBook by British Council

The image displays two screenshots of the MyWordBook app interface. The top screenshot shows the 'Learn' screen for the word 'marathon'. The bottom screenshot shows the 'New Word' screen for a word identification activity.

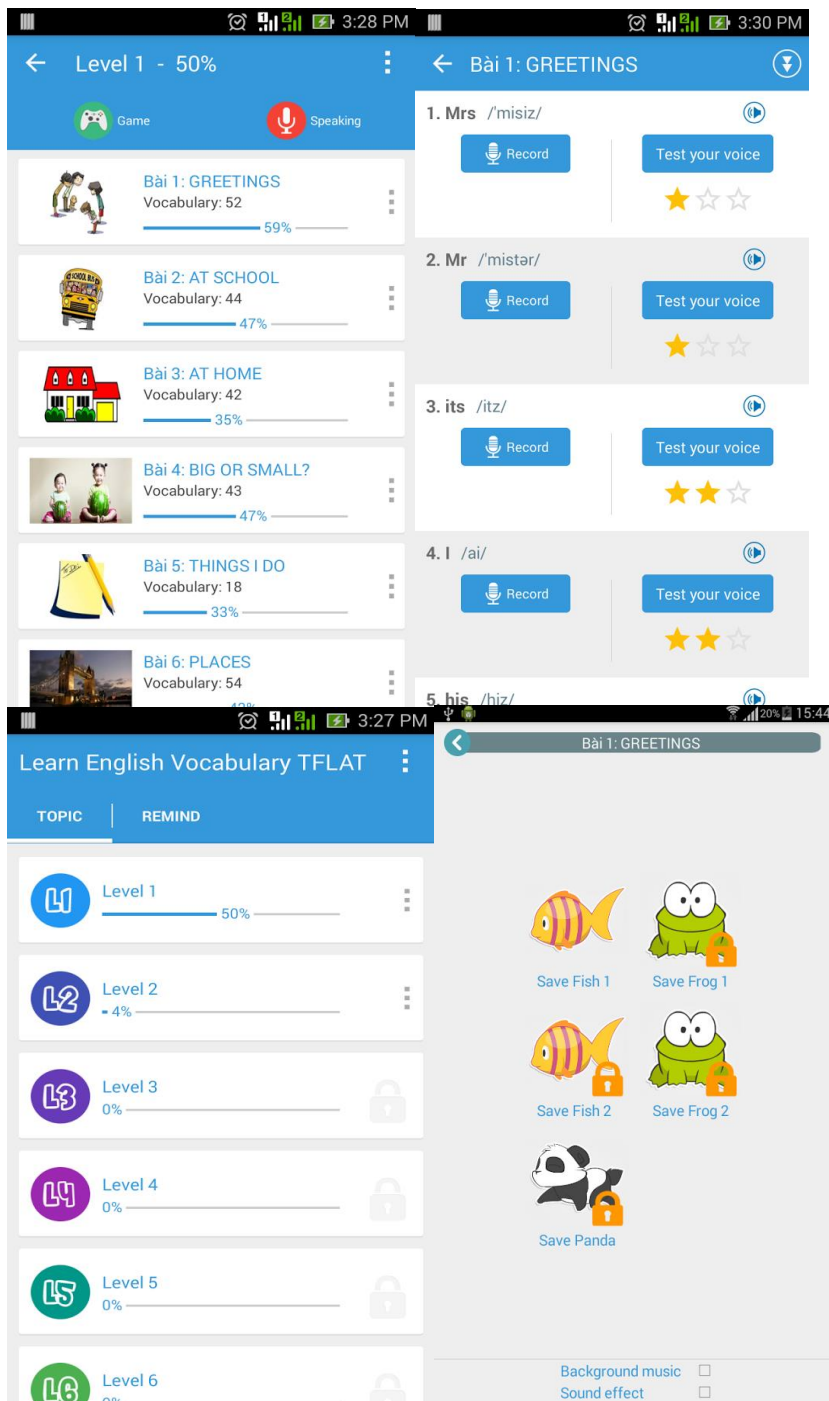
Top Screenshot (6:35):

- Header:** Home | Learn | Edit | Save
- Image:** A photograph of three runners in a marathon race.
- Word:** marathon
- Translation:** Translation
- Part of Speech:** noun
- Definition:** a race in which people run for about 26 miles/42 km
- Example Sentence:** I'm running in the London marathon this year.
- Actions:** Upload image, Play sound
- Bottom Menu:** Definition, Translation, Image, Sound, Word info, Example, My Notes, Edit

Bottom Screenshot (7:10):

- Header:** Back | Activity | Home | New Word | Save
- Instruction:** Select the best word for the picture.
- Image:** A photograph of three runners in a marathon race.
- Options:** garden centre, anniversary, marathon, injury
- Form Fields:** Word, Translation, noun, Definition sentence, Example sentence, Notes
- Actions:** Upload image, Record sound
- Timer:** Time left: 00:46
- Submit:** Submit

Learn English Vocabulary Daily by TFLAT GROUP



Vocabulary Builder by Magoosh

1000 vocab words picked by an expert GRE tutor

Definitions and example sentences for every word

Beat levels to unlock new words

Compete with other players using the app

The image displays four smartphone screens from the Magoosh Vocabulary Builder app. The top row features three screens: 1) A 'New Word' screen for 'diatribe' with four multiple-choice options: 'large group', 'speech that praises', 'bitter verbal attack', and 'hostile takeover'. 2) A 'Mastered!' screen for the word 'audacity', showing its definition as 'boldness' and an example sentence: 'She surprised her colleagues by having the audacity to publicly criticize the findings of an distinguished scientist.' It also indicates that 23 more words must be mastered to reach 'Basic Level 4'. 3) A level progression screen showing 'Basic Level 1' (3 of 10 words mastered), 'Basic Level 2' (locked), and 'Basic Level 3' (locked). The bottom row shows a 'Play Someone' screen with 142 active players, a 'Find a random opponent' button, and a list of 'Active Games' including 'Troy H. • Round 3' (You: 3, Troy: 10) and 'Martin V. • Round 3'.

Vocabulary Trainer Learn English Words Free by Language Course S.L.

The screenshot displays the Vocabulary Trainer app interface, which is divided into several sections:

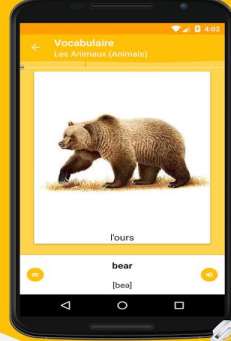
- Top Bar:** Features a hamburger menu icon, the text "Selección de cursos", and two instances of the app logo "Vocabulary Trainer" with a plus sign.
- Left Panel (Course Selection):**
 - Vocabulario Argot:** A checked checkbox.
 - Palabras más frecuentes:**
 - Principiante A1 (500 palabras) - checked
 - Elemental A2 (501-1250) - checked
 - Intermedio bajo B1 (1251-2250) - checked
 - Intermedio alto B2 (2251-3500) - checked
 - Avanzado C1 (3501-5000) - checked
 - Profesional C2 (>5000) - unchecked
 - Frases para ligar:**
 - Citas, Romance y Salidas - unchecked
 - Negocios:**
 - Vocabulario comercial - checked
 - Frases para Viajar:**
 - Básicos - checked
- Right Panel (Word Cards):**
 - Card 1:** "belong v." with an image of a woman smiling.
 - Card 2:** "pertener v." with an image of a hand on a mouse.
 - Card 3:** "belong" with an image of a hand on a mouse.
 - Card 4:** "despertar v." with an image of a red alarm clock.
- Bottom Panel (Statistics and Controls):**
 - Today's Progress:** Hoy: 00:00:33
 - Total Progress:** Total: 00:00:33
 - Score:** Puntos: 140
 - Speed Control:** Control de velocidad: A slider bar with minus and plus buttons.
 - Word Bank:** A row of six buttons labeled "G", "0", "0", "0", "0", "0".
 - Word Bank:** A row of six buttons labeled "a", "c", "c", " ", " ", " ".

Learn English 6 000 Words by Fun Easy Learn

6,000+
Words

FREE

NATIVE
Pronunciation



3 Levels

FREE
with *

7

unique games



6,000+
illustrations

2

writing games



Appendix 3

13000 English Vocabulary video					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> video with subtitles 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> basic intermediate advanced 	<ul style="list-style-type: none"> English 	<ul style="list-style-type: none"> share your words with friends personal table of achievements
English Vocabulary Daily					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> definition example word info translation 	<p>reading</p> <ul style="list-style-type: none"> words in context incomplete sentences text completion reading comprehension <p>listening</p> <ul style="list-style-type: none"> dictation and image question-response (listen to question and 3 responses and choose the best response) short conversations (listen to the short dialogs, then read the question and choose the best response) short talks (listen to the short talk, then read the questions and choose the best answer) 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> 600 toefc words 400 toefl must-have words business letters interview questions 5000 toefl/ielts words 3420 toefc words 	<ul style="list-style-type: none"> 38 	<ul style="list-style-type: none"> reward points reminder – it is time to learn personal table of scores
English with Words					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> transcription sound translation image option to learn/not to learn 	<ul style="list-style-type: none"> multiple choice translation multiple choice dictation+translation type the word exact number of letters word cards correct or false (does the definition and image match the translation) memoria word search puzzle own practice 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> Russian German Spanish French Italian Japanese 	<ul style="list-style-type: none"> reward points reminder - it is time to learn personal table of scores
Learn English 6,000 Words					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> transcription image sound translation 	<ul style="list-style-type: none"> put the words together multiple choice dictation+image+translation listen and type the the word – puzzle type the word – puzzle multiple choice image + translation find a picture 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> beginner intermediate advanced 	<ul style="list-style-type: none"> 59 	<ul style="list-style-type: none"> reward points master a level to unlock a new level personal table of achievements

Learn English Vocabulary Daily					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> transcription example sound translation 	<ul style="list-style-type: none"> type the words exact number of letters word cards practice your voice/pronunciation 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> 1-7 TOEIC VOCAB 	<ul style="list-style-type: none"> 38 	<ul style="list-style-type: none"> table with scores of other users reward points master a level to unlock a new level chat with foreigners reminder - it is time to learn
MyWordBook					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> definition translation image sound word info example my notes edit learner tip 	<ul style="list-style-type: none"> multiple choice image multiple choice definition multiple choice gap fill gap fill dictation 	<ul style="list-style-type: none"> translation 	<ul style="list-style-type: none"> elementary intermediate advanced 	<ul style="list-style-type: none"> international English Chinese Italian Japanese Spanish or own translation 	<ul style="list-style-type: none"> share your words with friends personal table of achievements
Vocabulary Builder					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> choose the best definition example sound definition 	<ul style="list-style-type: none"> multiple choice definition 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> general/ <i>gre</i> > basic, intermediate, advanced sat > common, basic, advanced toefl > common, easy, medium, hard 	<ul style="list-style-type: none"> English 	<ul style="list-style-type: none"> master a level to unlock a new level play someone - find a random opponent
Vocabulary Trainer					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> translation image sound 	<ul style="list-style-type: none"> translation listen and type the translation multiple choice image type the word-puzzle multiple choice word multiple choice first letter own practice 	<ul style="list-style-type: none"> retrieval 	<ul style="list-style-type: none"> A1-C1 	<ul style="list-style-type: none"> 34 	<ul style="list-style-type: none"> table with scores of other users reward points personal table of achievements
VoLT					
LEARN:	PRACTICE	REVIEW	LEVEL	LANGUAGE	MOTIVATION to learn & practice
<ul style="list-style-type: none"> definition synonyms antonyms example sound memory key image base on memory key 	<ul style="list-style-type: none"> none 	<ul style="list-style-type: none"> by looking at it and retrieve 	<ul style="list-style-type: none"> undefined 	<ul style="list-style-type: none"> English 	<ul style="list-style-type: none"> share your words with friends

SHRNUTÍ

Diplomová práce se zabývá hodnocením aplikací na mobilní zařízení zaměřící se na samostatné studium slovní zásoby v anglickém jazyce. Teoretická část se podrobněji zabývá principy, které by se měly dodržovat při osvojování si anglických slovíček a zároveň principy, které by se měly dodržovat při procvičování. Praktická část zahrnuje samotné hodnocení devíti vybraných kapitol a cílem bylo zjistit, do jaké míry se aplikace řídí metodickými principy pro efektivní studium a procvičování slovní zásoby v anglickém jazyce. Práce nadále obsahuje návrhy, které mohou učitelé zahrnout při vyučování slovní zásoby v anglickém jazyce.