# Activation activities as a catalyst for increased rates of vocabulary and grammar learning\*

Izaskun VILLARREAL

Universidad Pública de Navarra / Nafarroako Publikoa Unibertsitatea izaskun.villarreal@unavarra.es

#### Iranzu Ardaiz

Universidad Pública de Navarra / Nafarroako Publikoa Unibertsitatea iranzu.ardaiz@unavarra.es

Abstract: Accessing or activating prior knowledge seems to be essential when fostering meaningful learning. The current study explores the effects of activating prior language knowledge on vocabulary and grammar by comparing an experimental EFL secondary school group against a parallel control group. The treatment for the experimental group consisted on tailored vocabulary and grammar activating activities for ten sessions. With a pre-post-test design, data were collected from: (1) a pre-and a post-test to measure vocabulary and grammar; (2) a pre-and-post textbook unit test; (3) a satisfaction questionnaire after the experimental period. The various analyses confirmed the benefits of activating in EFL classes, as experimental learners produced more vocabulary items and scored higher in all the tests. The results for the grammatical activities, also pointed to the merits of activating for grammatical features. Furthermore, experimental learners showed a positive motivation towards the activating activities and expressed their willingness to continue with them.

**Keywords:** activating; EFL; vocabulary; grammar; motivation.

Resumen: La activación o acceso a conocimientos previos parece esencial para promover un aprendizaje significativo. Este estudio analiza los efectos de la activación de conocimientos previos en vocabulario y gramática en hablantes de ILE de secundaria. Con un diseño pre-post-prueba, se comparó el desempeño de un grupo experimental que había trabajado con actividades de activación del vocabulario y la gramática durante 10 sesiones con un grupo de control paralelo. Los datos analizados se obtuvieron de: (1) una pre y post-prueba de vocabulario y gramática; (2) un pre-post-examen de la unidad del libro de texto; (3) un cuestionario de satisfacción post tratamiento. Los análisis confirmaron los beneficios de la activación puesto que el alumnado experimental produjo más ítems léxicos y obtuvo mejor puntuación en todas las pruebas. Asimismo, los resultados de los ejercicios gramaticales sugieren beneficios para el aprendizaje gramatical. Además, el grupo experimental mostró una actitud positiva y expresaron sus deseos de continuar con las actividades.

Palabras clave: activación; ILE; vocabulario; gramática; motivación.

<sup>\*</sup> *Agradecimientos*: We would like to thank Salesianos Pamplona for giving us the opportunity to carry out the project. Special thanks go to the participating students for their enthusiasm and their teachers for their help and support.

## I. Introduction

Students are constantly being presented with new information especially in the higher levels of education. If this new material is not integrated and connected to already existing ideas, it will be discarded in the medium or long term. In order to learn more effectively students need to insert the new information into their previous knowledge database and thus, start making connections and constructing new understanding from their existing ideas and beliefs (Strangman & Hall, 2004). By putting the upcoming lesson contents into a context that may be familiar for the students, the teacher is giving them a framework into which they can then incorporate the new information and understanding (Shamla, 2010).

Activating or accessing previously learnt material has been considered a valuable way of revising and starting with a new topic as it is considered to stretch thinking, and to improve content learning and student engagement (Dale, Van der E & Tanner, 2010). In fact, activating prior knowledge activities are widely used in Content and Language Integrated Learning (CLIL) contexts (Dale et al., 2010; Dale & Tanner, 2012) where learners have been reported to achieve higher language competence levels than their EFL counterparts (Marsh, 2002; Coyle, 2007; but see Villarreal (2011) and studies therein for findings questioning this). In particular, Dale et al. (2010) defend that activating prior knowledge boosts motivation, creates expectations about what is to come and urges tighter language and curricular connections between the new and previously learnt topics, while making individual differences visible to the teacher. In short, activating seems to promote more meaningful and successful content and language knowledge.

In contrast to the CLIL field, studies that prove the effectiveness of activating in EFL contexts are scarce (Maghsoudi, 2012; Majid Hayati, 2009; Roozkhon & Rahmani Samani, 2013; Shabani, 2013) and mostly focus on activating vocabulary while the effect of activating on grammatical features has been unexplored. With this in mind, the current study seeks to compare the effects of activating grammatical and lexical items among EFL secondary learners.

## II. Literature review

#### 1. The importance of activating

Activating (sometimes referred to as activating prior knowledge or activating existing knowledge) involves carrying out activities which will engage learners in a lesson topic and help them access what they already know about it, so that

they can link that knowledge to the new material and build on it (Dale et al., 2010). While accessing already acquired information and language is sometimes stressed in language books which usually begin new units with lead-in and/or warm-up activities and then, the presentation of the new content; it is frequent-ly underestimated in class and the teaching of new language (vocabulary and structures) is done in an isolated manner without building strong connections with already acquired knowledge. Nevertheless, albeit time-consuming, activating has been considered «an essential part of the learning process» (Dale et al., 2010: 26). In particular, these authors acknowledge an array of benefits for successful language and content learning (Dale et al. 2010: 26):

An activating stage of a CLIL lesson can engage the learners' interest and curiosity, thus motivating them; provide rich language input; help learners notice features of the language; help learners notice the gap between their knowledge and understanding of concepts in their first and second language; help learners to make the language and content of the lesson meaningful to them personally; stimulate interaction between learners; encourage learners to produce (spoken or written) language; activate relevant, useful or half-remembered language for the lesson; activate relevant cultural and background knowledge for the lesson; activate existing beliefs about and attitudes to the topic of the lesson; challenge or surprise the learners in some way; challenge the learners to think more deeply about the topic of the lesson, and appeal to different learning styles or multiple intelligences.

The numerous benefits for activating mentioned above have led teachers to start their lessons by engaging their learners' attention and reviewing what the learners already know about the topic. This is a way of connecting new learning to their prior knowledge and experiences and at the same time of increasing learners' readiness and effectiveness when learning new material. These activities facilitate the link among new words and structures, students' everyday lives and cultures, which turn learning into a more meaningful process. In addition, these activities increase the learner's motivation, create expectations about a topic and help them focus on the language and content of the lesson.

In addition to the above-mentioned gains and due to the fact that all learners are different (they know different things, they may have different cultural and linguistic backgrounds, they have different experiences outside school and different interests, learning styles and intelligences), activating helps making these differences overt for the teacher, so that the teacher knows how to connect the new content to what different learners know. Moreover, it makes the differences visible to the learners, revealing them that they can gather information and learn from each other (Dale et al., 2010).

#### 2. Theoretical grounds for activating

The theoretical underpinnings in which the need for activation is sustained dates back to Cummins (1984) and it is frequently explained with the metaphor of the iceberg. Namely, it describes how some part of the learner's knowledge is invisible (under the waterline) and other parts are visible (above the waterline). Underneath the water, learners have experiences and knowledge of the world, as well as a conception of how language is used to express their ideas and thoughts, independently of which language is employed to express them. This is what Cummins called Common Underlying Proficiency. Thus, establishing an effective connection between that deep knowledge and the new input received is necessary to guarantee successful learning processes and to construct meaning actively.

However, if the connection is not fostered the content and language presented and used in the lessons are less likely to be remembered and students will find it more difficult to reproduce it later (Dale et al., 2010). In other words, the learning process may turn out to be both less effective and efficient. That means that students will learn less and more slowly. Hence the importance of the activating stage to help students make connections between prior knowledge and new items of language.

When activating, a teacher needs to help learners make explicit in the target language both the ideas and the language they already know, so that they can make sense of new content and language. Giving learners time to work on what they already know also underscores the differences or the gap between what they are already acquainted with and what they do not know yet. In this way, both teachers and learners become aware of this gap, which can make learning more effective. Such arguments have made this gap central in CLIL (Mehisto, Marsh, & Frigols, 2008), and parallel claims are made in the present article to highlight its importance for EFL teaching and learning.

#### 3. Existing EFL research studies

A wealth of research studies has demonstrated that activating is beneficial for promoting learning in the mother tongue and it has been associated with beneficial academic behaviours and higher academic performance which include enhanced reading comprehension (Dole, Valencia, Greer & Wardrop, 1991; Graves, Cooke & Laberge, 1983; Langer, 1984; Long, Winograd & Bridget, 1989; McKeown, Beck, Sinatra & Loxterman, 1992; Stevens, 1980, 1982), speed and accuracy of study behaviour (Dochy, Segers & Buehl, 1999) and student interest in a topic (Tobias, 1994). Most importantly, as Strangman and Hall (2004: 3) state «prior knowledge has a large influence on student performance, explaining up to 81% of the variance in post-test scores».

In stark contrast to the preponderance of research on activating in the mother tongue, research in the EFL context has been rare. Yet, a series of studies carried out with Iranian EFL students report that the activation of language background knowledge resulted on a higher command of the language. Majid Hayati (2009) designed a project to investigate the effect of cultural knowledge on the listening comprehension skills and the results suggested that the participants performed differently once they were familiar with the culturally-oriented language material. This practice promoted their listening. Furthermore, Maghsoudi (2012) showed that reading comprehension was improved after schema activation. In this study, the experimental students' schema, i.e. background knowledge, was activated through pre-reading activities while the control group received no treatment. Not only did the experimental group obtain better results than the control group, but they also revealed increased cultural knowledge. Likewise, Shabani (2013) sought to explore the effect of background knowledge on speaking. During the treatment, a topic was introduced to the learners to work on for the following session. The subjects were asked to get the needed information about the topic through searching on the Internet, books, magazines, newspapers, etc. When attending the class for the following session, the students were encouraged to present their opinions and findings about the topic. After having the language and content activated, the results showed these learners could talk more easily and for longer periods of time if compared to other topics which had not been activated previously. A final study by Roozkhon and Rahmani Samani (2013) tested the effect of using anticipation guide strategies to improve comprehension, a prereading technique which helps to activate learners' prior knowledge and get them interested in the topic they are going to read about. The results proved that students enhanced their fluency and comprehension through activation. It seems, therefore, that activating or familiarizing with upcoming information proves beneficial also for the acquisition of EFL speaking and reading skills. Yet, no study has targeted the effect that accessing prior knowledge has on the developing vocabulary and grammar interlanguage of EFL students, areas which have traditionally been considered of difficulty for EFL learners.

Bearing all this in mind, this study seeks to investigate whether activating prior vocabulary and grammar knowledge leads to a higher performance in vocabulary and grammar production among secondary EFL learners. A higher performance has been operationalized as the production of a higher number of target vocabulary items and more accurate production of grammatical structures.

## III. Methodology

#### 1. The aim and design of the study

The present study sought to explore the impact that activation activities exert on the language learning process and motivation of secondary school learners. In particular, it aimed at testing whether the benefits obtained for reading and speaking whereby activation has been suggested to create more meaningful and longer-lasting knowledge (Dale et al., 2010; Maghsoudi, 2012; Roozkhon & Rahmani Samani, 2013; Shabani, 2013) could be extended to grammatical and lexical provision as well as students' motivation. These are the three research questions that were entertained:

- 1) Is activation useful to increase the learning rate of vocabulary and grammar learning in an EFL context?
- 2) Is activating equally useful for vocabulary and grammar learning?
- 3) Is activation perceived as a useful and motivating technique by students?

In order to answer the questions, three different factors were selected for the analysis:

a) Rate of vocabulary items produced; b) accuracy of grammatical forms; c) increased motivation of students.

### 2. Participants

Thirty 13-14 year-old secondary school students who receive EFL classes as part of their school curriculum participated in the study. Their English language proficiency measured through a Placement Test (Cambridge University Press, 2010) ranged from A2 to B2, although most of them were A2 English learners (17/30, i.e. 57%) followed by Pre-B2 level learners (10/30, i.e. 33%) and only 3 out of 30 demonstrated a B2 level. The participants belonged to two different intact classes. A one-way ANOVA Test revealed that the two groups had a comparable language proficiency level prior to the study (F=6.70; p=0.42) and thus, were allocated at random to the experimental (EG n=16) and control groups (CG n=14).

The class followed the coursebook *Sparks 2* by Evans and Dooly (2010). The coursebook established the dynamics of the class and the teacher and students completed all the activities that were part of the book which were mostly teacher-fronted activities.

#### 3. The Instruments

Three instruments were used to collect the data: (a) 2 tests, Test1 and Test2, which included a test on vocabulary and a test on grammatical structures; (b) 2 unit tests taken from the textbook, UT4 and UT5; (c) a satisfaction question-naire - different for each group.

#### a) Test 1 and Test 2

These two tests were designed to answer research questions one and two on the usefulness of activating activities to increase vocabulary rate and promote grammatical learning. The tests targeted vocabulary and grammatical aspects related to the topics that had been covered in the coursebook (Evans & Dooley, 2010). This decision was made in order to keep class interference to a minimum level, as students had to cover a specific curriculum to meet national standards. Test1 and Test2 shared the same design which would allow comparison of the results. Test1 was administered before the treatment and Test2 after the treatment. The tests were divided into two parts: (1) a vocabulary part which included prompts related to the topic they had covered in the coursebook for that unit, household chores and free-time activities in Test1 and means of transport and geographical features in Test2; (2) a fill-in the gaps grammar part aimed at producing modal structures (Test1) and comparatives and superlatives (Test2). The grammar tests included sentences such as, You \_\_\_\_\_\_wear a uniform (Test1) or Pamplona is (big/small) Barcelona (Test2). We are aware of the limitations of comparing different topic items and grammatical features, one of them being the fact that some features might be intrinsically more difficult than others, and the need for more controlled experimental data. However, we also believe that this type of research was conducted in an existing educational setting, controlling as many factors as possible in the instrument design process, which should give ecological validity to it (García Mayo & Villarreal, 2011).

#### b) Unit Test 4 (UT4) and Unit Test 5 (UT5)

These were the tests from the coursebook (Evans & Dooley, 2010). They targeted vocabulary, grammar, writing, reading and listening skills. Students were given one such test at the end of every unit and was the only means through which the teacher measured students' progression in English. In fact, students' grade was the average of the grade obtained in the various tests they took throughout the trimester. As students had already taken the test prior to the treatment (UT4) and would take the next test after the treatment (UT5), comparing the results from these tests has been deemed interesting as they may serve as an independent evidence for the effects of activation. It was considered that if activating was advantageous, its benefits would show in the unit test, the main means by which students' ability was assessed for academic credit.

#### c) A satisfaction questionnaire

As activating activities were not part of their standard English classes, a satisfaction questionnaire was administered at the end of the treatment period to measure students' motivation towards their English class and students' willingness to continue with the teaching practices followed in class, only for the students in the EG. Both questionnaires were anonymous and were completed in their mother tongue to guarantee students could express themselves freely. The CG answered questions about their personal feelings towards the English class, what they missed and what they found useful and interesting as well as questions asking for suggestions or improvements to the activities carried out in the class. The EG were asked questions about the experimental activating activities introduced - the content and variety of activities-, their usefulness and impressions about them.

#### 4. The procedure

First, students took a Placement Test to ensure the comparability of the groups as for their English language competence, since no differences were observed among the groups (F=6.70; p=0.42), they were randomly assigned to the experimental (EG) and control groups (CG). Second, students completed Test1 right after they finished unit 4 in their English coursebook. To complete the vocabulary test students were presented with the topic words

and were allowed three minutes to complete it by jotting down as many words as they could remember about the topic; 15 minutes were allowed to fill out the grammar activities (this procedure was repeated in Test2). Third, students completed UT4 following the standard procedure in class. Individually students completed UT4 and then the teacher collected it and graded it. The result of the test was part of their final grade. Subsequently, both groups completed and worked on unit 5 of their textbook. The unit was entitled «Our Wonderful World» (Evans & Dooley, 2010). During the teaching of this unit, the EG carried out activating activities for the first ten to fifteen minutes of every English lesson for ten sessions, approximately three weeks. These were activating activities adapted from the manual *CLIL Activities* (Dale et al., 2012) such as: «Guessing the lesson», a «Spider diagram»; the «Quickest, most and best» a «Placemat» task in small groups; the «Scrambled eggs» among others. At the beginning of each session an activating activity was introduced to the class and depending on the nature and dynamics of it, the class was rearranged for it (either individually, in pairs, triads, small groups or two halves). Once the activity was finished, a brief brainstorm of impressions and ideas related to it proceeded. Then the class followed as usual by completing the activities in the coursebook. These activities were aimed at motivating students and activating their background knowledge about the topic, including both vocabulary and grammatical structures. For the same period of time, students in the CG completed the activities from the book for the same amount of lessons, 10 sessions. After the treatment, a post-test, Test2, and a unit test, UT5, were administered. The tests mirrored the pre-test and UT4 but dealt with the new topic and grammatical structures in unit 5.

Finally, a satisfaction questionnaire was filled in anonymously by the two groups in their mother tongue. The surveys were different and were tailored to gauge the teaching methodology followed by each group. The CG had to answer questions about their personal feelings towards the English class, what they missed and what they found useful and interesting. The latter were asked questions about the experimental activating activities introduced, their usefulness and impressions about them.

#### 5. Data analysis

The scoring for the grammar pre and post-tests, and the two unit tests, UT4 and UT5, followed the standard procedure of the school and were marked out of 10. A point was given if the target element was included accurately, while a 0 indicated an error. In the vocabulary pre and post-tests the number of items provided in three minutes was counted. A higher number of instances was interpreted as an indicator of a more favourable vocabulary learning.

The results obtained in and between groups were later compared for the pre and post-tests and the unit tests. Various one-way ANOVA tests and t-tests were run to see whether the results obtained were statistical and thus, differences between the two groups were observable.

Finally, the items in the satisfaction questionnaires were tallied according to the following values: (a) CG questionnaire: affirmative answers were given a 1 while negative answers were given a 0. Higher numbers meant higher motivation; (b) EG questionnaire: as items had different scales, in questions 1, 2, 3, 4, 5, 8 and 10 items were grouped according to three broad categories: positive, neutral and negative. The questionnaire was designed to complement and qualify the quantitative results and as it was not the main objective of the study, these three broad categories were deemed sufficient to characterize their responses. For instance, items like *strongly agree, agree, a lot* were considered positive, *fair* or *quite* were considered neutral, and *disagree, strongly disagree, a little, not at all* were counted as negative. It must be noticed that in question 3 students could select more than one possible answer. Questions 6, 7 and 9 had only two possible responses and mirror the procedure for CG.

### IV. Results

The following section presents results for the pre-test (Test1), post-test (Test2), the unit tests (UT4 and UT5) and satisfaction questionnaires (A and B).

Table 1 and Table 2 feature the results obtained for the vocabulary pre-test (Test1-voc), the grammar pre-test (Test1-gram) and the unit test (UT4) for the two groups before students received any activation treatment.

	8		
	UT4	Test1-voc	Test1-gram
CG1	6.00	12	6
CG2	5.30	10	3
CG3	4.00	7	9
CG4	4.70	7	7
CG5	4.80	17	9
CG6	5.70	4	7
CG7	5.70	8	6
CG8	4.00	19	8
CG9	6.30	6	6
CG10	4.20	5	8
CG11	5.70	10	6
CG12	5.70	8	6
CG13	5.00	10	5
CG14	5.80	3	10
MEAN	5.21 (0.792)	9 (2.10) Total: 126	6.86 (1.83)

Table 1. Results obtained by the Control Group (CG) in UT4,Test1-voc and Test1-gram

Table 1 illustrates the results obtained by the CG. As can be observed in the table the mean score for the unit test is 5.21 (0.79 SD). Five students out of 14 do not pass the test. For the Test1-voc students produce a mean of 9 words, the maximum being nineteen and the minimum three. Finally, the group mean is 6.86 for the grammar test with a larger SD (1.83). Only one student does not manage to pass the grammar test on modal verbs.

Table 2 describes the results for the EG at the initial state, prior to any treatment.

	UT4	Test1-voe	Test1-gram
EG1	5.80	10	8
EG2	7.30	3	9
EG3	1.60	0	5
EG4	5.80	19	8
EG5	7.00	18	9
EG6	8.60	12	10
EG7	7.40	3	8
EG8	7.90	18	9
EG9	6.30	5	7
EG10	1.50	2	0
EG11	6.50	15	10
EG12	6.80	18	10
EG13	7.40	9	10
EG14	9.00	9	8
EG15	7.20	12	9
EG16	5.40	6	2
MEAN	6.34 (2.10)	9.94 (6.38) Total: 159	7.63 (2.91)

**Table 2.** Results obtained by the Experimental Group (EG) in the UT4, Test1-voc and Test1-gram before the treatment

The group mean score for UT4 is 6.34 with quite a large SD (2.10) with two participants scoring below 2 (EG10, EG3) and one scoring a 9 (EG14). As for the Test1-voc, the participants produced an average of 9.94 words with a broad SD (6.38): EG3 did not produce any vocabulary items related to household chores and free-time activities while EG4 produced as many as 19. The mean scores seem to be a little higher than those reported for the CG but so is the SD for each of the items compared. The grammar test reported a 7.63 mean score with a large SD (2.91): four participants got all the points while EG10, in contrast, scored a 0 as she did not provide any accurate modal structure.

The results observed in Table 1 and Table 2 reveal slightly higher scores for the EG. If the EG is inherently better than the CG, the potential benefits of activating prior information could be obscured. A one-way ANOVA analysis showed, however, that both groups were, in fact, parallel before any treatment was applied. The main effect of group was not statistical for any of the test-types (UT4  $F_{1,28}$ =3.64, *p*=0.067; Test1-voc  $F_{1,28}$ =0.21, *p*=0.652; Test1-gram  $F_{1,28}$ =0.72, *p*=0.404). No differences between the groups were observable before the treatment. Therefore, any purported differences attested after the treatment could be assumed to be related to the activation of pre-existing knowledge.

Table 3 and Table 4 feature the results for the grammar and vocabulary posttests (Test2-voc and Test2-gram) and the unit test, UT5, for each group.

	UT5	Test2-voc	Test2-gram
CG1	7.00	10	1
CG2	5.00	10	2
CG3	4.50	6	3
CG4	5.90	5	5
CG5	6.20	11	6
CG6	3.00	4	2
CG7	5.00	9	2
CG8	6.00	9	4
CG9	3.00	10	2
CG10	5.20	9	4
CG11	5.70	2	0
CG12	5.00	14	2
CG13	4.00	8	1
CG14	6.60	6	6
MEAN	5.15 (1.22)	8.07 (3.15) Total: 113	2.86 (1.88)

Table 3. Results obtained by the CG for the unit test, UT5, vocabulary post-test, Test2-voc, and grammar post-test, Test2-gram

Post-test results for the CG yielded a 5.15 mean with a 1.22 SD. Four students did not pass UT5. The lowest score was a 3 while the highest one was a 7. As for the results obtained in Test2-voc, the mean score is not very high, 8.07 (3.15 SD). CG12 produces the highest number of words, 14, while CG11 produces the lowest: only 2 instances. Even lower scores are obtained in Test2-gram: a mean of 2.86 and a quite high SD, 1.88. As many as eleven students scored below 5 and 8 of them got a 2 or a lower grade. Results for the post-tests did not seem very encouraging for the CG.

Table 4 features the results for the post-tests obtained by the EG.

	UT5	Test2-voc	Test2-gram
EG1	7.80	21	9
EG2	8.40	16	6
EG3	6.00	18	7
EG4	7.80	25	8
EG5	6.50	22	10
EG6	9.40	20	8
EG7	8.00	16	8
EG8	7.80	20	3
EG9	6.70	17	3
EG10	1.30	18	1
EG11	8.80	19	10
EG12	7.30	24	8
EG13	8.60	15	8
EG14	9.00	17	9
EG15	8.80	21	10
EG16	4.40	18	2
MEAN	7.29 (2.05)	19.19 (2.88) Total: 307	6.88 (2.99)

**Table 4.** Results obtained by the EG for the unit test, UT5, vocabulary post-test, Test2-voc, and grammar post-test, Test2-gram

The EG's results seem to be more positive than those by the CG. For the UT5, EG obtained a mean of 7.29, the SD was also broad, nevertheless, 2.05. Only two participants, EG10 and EG16 failed the test while ten students obtained a score above 7.5. As for the post-test on vocabulary production, the mean was 19.19 with a quite low SD (2.88). More than 7 people produced twenty words or more related to the topic of means of transport and geographical features. EG13 is the participant that produced the lowest number of instances,

15, more than the instances produced by the participant with the highest production score in the CG. Finally, the post-grammar test revealed a 6.88 mean average with a large SD (2.99). Thus, there was a higher variability among the participants: while 3 participants got a 10, 2 obtained a 2 or lower.

These outstanding results obtained by the EG demonstrate that activating and thus, establishing the link between existing and new information, proves advantageous for FL learning as observed by the higher scores obtained in all the post-tests. A one-way ANOVA test confirms such statement and yields a statistical effect where the EG is statistically different from the CG for all the post-tests: UT5  $F_{1,28}$ =11.61, *p*=0.002; Test2-voc  $F_{1,28}$ =101.96, *p*=0.000; Test2gram  $F_{1,28}$ =18.81, *p*=0.000. It seems, therefore, that while in the pre-test the two groups performed similarly, after 10 sessions of activation the two groups behave differently. This confirms our hypothesis that activation is beneficial and bolsters the learning of a FL.

To finish with comparing data from pre and post-tests, the progress observed from the pre-treatment time to the post-treatment will be analysed for the two groups (see Table 5 and Table 6).

	UT4	UT5	Test1-voe	Test2-voc	Test1-gram	Test2-gram
CG1	6.00	7.00	12	10	6	1
CG2	5.30	5.00	10	10	3	2
CG3	4.00	4.50	7	6	9	3
CG4	4.70	5.90	7	5	7	5
CG5	4.80	6.20	17	11	9	6
CG6	5.70	3.00	4	4	7	2
CG7	5.70	5.00	8	9	6	2
CG8	4.00	6.00	19	9	8	4
CG9	6.30	3.00	6	10	6	2
CG10	4.20	5.20	5	9	8	4
CG11	5.70	5.70	10	2	6	0
CG12	5.70	5.00	8	14	6	2
CG13	5.00	4.00	10	8	5	1
CG14	5.80	6.60	3	6	10	6
MEAN	5.21 (0.792)	5.15 (1.22)	9 (2.10) Total: 126	8.07 (3.15) Total: 113	6.86 (1.83)	2.86 (1.88)

Table 5. Results for the three pre and post-tests by the CG

Broadly speaking, a clear picture emerges: the CG obtained similar results while the EG improved its behaviour in a noticeable manner. Both groups exhibited a lower performance in the second grammar test, however. A closer look at group results shows that the CG performed similarly in UT4 and UT5, 5.21 and 5.15 with a slightly larger SD in UT5 (0.792 vs. 1.22) and in the vocabulary pre and post-tests (9 vs 8.07). Every single participant had a lower score in the grammar post-test and the group mean was 4 points lower (6.86 and 2.86). Only three out of fourteen students would have passed the test.

The T-test for related measures supports the description. The overall unit tests and the vocabulary tests comparisons did not yield statistical differences (t=0.140, p=0.891 for the unit tests; t=.750, p=0.467 for the vocabulary test). Hence, the group performed similarly in the pre and post-tests. The grammar comparisons, however, turned out to be significant and indicated that the CG did differently in the Test1-gram and Test2-gram tests, in fact, in the post-grammar tests the CG's performance was notably poorer (t=11.015, p=0.000). Thus, while the CG experienced a backslide in the grammar tests, it exhibited a parallel performance for the vocabulary and the unit tests.

	UT4	UT5	Test1-voc	Test2-voc	Test1-gram	Test2-gram
EG1	5.80	7.80	10	21	8	9
EG2	7.30	8.40	3	16	9	6
EG3	1.60	6.00	0	18	5	7
EG4	5.80	7.80	19	25	8	8
EG5	7.00	6.50	18	22	9	10
EG6	8.60	9.40	12	20	10	8
EG7	7.40	8.00	3	16	8	8
EG8	7.90	7.80	18	20	9	3
EG9	6.30	6.70	5	17	7	3
EG10	1.50	1.30	2	18	0	1
EG11	6.50	8.80	15	19	10	10
EG12	6.80	7.30	18	24	10	8
EG13	7.40	8.60	9	15	10	8
EG14	9.00	9.00	9	17	8	9
EG15	7.20	8.80	12	21	9	10
EG16	5.40	4.40	6	18	2	2
MEAN	6.34 (2.10)	7.29 (2.05)	9.94 (6.38) Total: 159	19.19 (2.88) Total: 307	7.63 (2.91)	6.88 (2.99)

Table 6. Results for the three pre and post-tests by the EG

The EG, on the other hand, did otherwise. They manifested a noteworthy improvement after the activation process both for the unit test and the vocabulary test. Only 4 participants performed slightly lower in UT5 than in UT4. The group average also increased for almost a point, from 6.34 to 7.29. Furthermore, the results for the vocabulary post-test rocketed and every participant produced more vocabulary items. In fact, 7 participants produced more than 10 words more in the second vocabulary test. The group has outnumbered the total amount of words produced in the pre-test by 148 items. The mean increased remarkably - 9.94 vs 19.19- while the SD decreased -6.38 vs. 2.88- confirming a more successful and homogeneous group behaviour.

This remarkable difference is not observed for the grammar results. The EG performed somewhat poorer in the post-grammar test, although the drop in the results was not as sharp as for the CG but quite shallow, 7.63 vs. 6.88. Only five students obtained a superior number of accurate grammatical structures, three maintained it and the rest decreased the amount of correct answers.

The t-tests for related measures undertaken confirmed this. The tests demonstrated that the EG did statistically better in the post-test for the unit and vocabulary tests (UT4 vs UT5 t=2.850, p=0.012; Test1-voc vs Test2-voc t=8.126, p=0.000). Statistics also supported the parallel performance observed in the grammar tests as no statistical differences arose (t=1.360, p=0.194). Thus, the results obtained point towards the positivity of activating for language learning as the EG showed a clear improvement from the pret-test to the post-tests while the CG did not.

This section featured the results obtained for the CG and the EG in the global unit tests -UT4 and UT5--, the vocabulary test Test1-voc on household chores and free-time activities and Test2-voc on transport and geographical features, the grammar test Test1-gram on modals and Test2-gram on comparatives and superlatives. Broadly speaking, the results pointed to a clear advantage for the activated group, as the EG outperformed the CG in every post-test while the two groups behaved similarly in the pre-activation tests. What is more, while no progress was observed for the CG (and even a steep drop for the grammar post-test is observable) in the vocabulary and the post unit test, UT5, the EG bolstered its performance and showed that activating proves beneficial for language acquisition and that it may promote language learning. Notwithstanding, the results obtained reveal that while vocabulary memorisation and production is boosted, grammar structures do not experiment such a prominent improvement. Both the activated and the CG fail to show compelling signs of progress in this area. Our findings revealed, however, that while the EG's performed somewhat poorer in Test2-gram (7.63 vs 6.88), their performance in the two grammar tests is essentially similar as no significant differences were observed. The CG, however, exhibited a markedly different behaviour, and the group results are significantly worse in the post-test (6.86 vs 2.86). Although tentative, the results obtained for grammar point to the fact that activating can indeed exert influence on grammatical structures, as shown by the parallel numbers obtained, probably by helping learners to transfer previous relevant knowledge to new forms learnt.

#### 1. Results for the satisfaction questionnaires

Finally, the results derived from the satisfaction questionnaires are presented.

Questions	Yes	No
Q1	9 (64.28%)	5 (35.71%)
Q2	9 (64.28%)	5 (35.71%)
Q3	4 (26.66%)	9 (64.28%)

 Table 7. Results for the satisfaction questionnaire B (by the CG)

Most of the students in the CG (64.28%) admitted being satisfied with the activities and procedures used in class and considered they had used revising activities at the beginning of each class. Similarly, when they were asked whether they missed warming-up activities (or activating activities) at the beginning of each lesson, nine students (64.28%) declared they did not, while four said they would increase them (and they suggested homework revision or oral activities to recall the topic and content they were working on the previous days). However, when they were asked for suggestions to improve the English classroom, the great majority agreed on proposing more games, motivating activities, less memorising and more pair or group work, among others.

On the other hand, the EG shows a great level of satisfaction with the activating activities introduced in their classroom (see Table 8).

		Positive	Neutral	Negative
Content	Q1.1.	13 (70.5%)	3 (17.64%)	1 (5.88%)
	Q1.2.	11 (64.7%)	5 (29.41%)	1 (5.88%)
	Q1.3.	16 (94.11%)	1 (5.88%)	
Activity types	Q2.1.	5 (29.41%)	9 (52.94%)	3 (17.64%)
	Q2.2.	3 (17.64%)	9 (52.94%)	5 (29.41%)
	Q2.3.	9 (52.94%)	8 (47.05%)	
	Q2.4.	5 (29.41%)	6 (35.29%)	6 (35.29%)
Like most	Q3.1.		5 (29.41%)	
	Q3.2.	3 (17.64%)		
	Q3.3.			1 (5.88%)
	Q3.4.	12 (70.58%)		
	Q3.5.			1 (5.88%)
	Q3.6.	5 (29.41%)		
Value	Q4	16 (94.11%)		1 (5.88%)
Cooperative learning	Q5	6 (35.29%)	6 (35.29%)	5 (29.41%)
Learning satisfaction	Q8	5 (29.41%)	9 (52.94%)	3 (17.64%)
Learning outcome	Q10	12 (70.58%)	5 (29.41%)	
		Yes	No	
Continuity	Q6	17 (100%)	0 (0%)	
Positive in class	Q7	16 (94.11%)	1 (5.88%)	
Recommend	Q9	14 (82.35%)	2 (11.76%)	

\* Even though there are 16 participants in the EG, 17 answered the satisfaction questionnaire. This is due to the fact that student 17 did not write UT4 so it was excluded from the study. However, as this student received the treatment and the questionnaires were anonymous, his/her answers were included here.

Izaskun Villarreal Iranzu Ardaiz

More than 70% of the students answered positively when they were asked if the nature of the activities helped them remember and learn in a more effective way the content of the unit (Q1.3); if the activities were an easier, motivating and longer-lasting way of learning English (Q3.4); if they would recommend them to other EFL teachers (Q9) or when they were asked about the general impression of these activities (Q7). Furthermore, 70% of the class admitted having learnt more and in a more effective way and the rest considered that their learning had not varied, but in no case they thought it had decreased (Q10). Less positive or neutral responses were related to the type of activities implemented (Q2) or the boost of cooperative learning (Q5). All in all, albeit some discrepancies exist, all students (100% of interviewees) agreed that the activating activities should continue to be done in class (Q6).

The findings obtained from the comparison of CG and EG, and the performance of the participants in the pre and post-test, as well as the responses received in the questionnaires demonstrate that activating motivates learners and boosts lexical and grammatical acquisition.

#### V. Discussion

The present study set off to investigate whether activating prior knowledge brought about benefits in terms of grammar, vocabulary and broader test scores as indicators of a more favourable language acquisition process and whether all the aspects under analysis were affected similarly. Additionally, whether students were more motivated when the activating activities were included was also examined. For that, two groups of students were involved which varied depending on whether they were presented with activities targeted to stir existing knowledge considered to boost recalling and learning ultimately or not.

The findings summarized in the previous section point out to a remarkable difference between the two groups under analysis: the EG performed more successfully than the CG in all the post-tests. This seems to prove that activating prior knowledge is fruitful for the EFL classroom and supports earlier work carried out by Maghsoudi (2012), Majid Hayati (2009), Shabani (2013) and Rooz-khon and Rahmani Samani (2013) who have established that the activation of vocabulary and structures as well as background knowledge resulted in a higher command of the language. The findings obtained for both vocabulary and unit tests provide further evidence to support such claim. Although the results are not so spectacular, activating also proved advantageous for grammatical aspects. Even though EG does not produce more correct grammatical structures in the

post-test than in the pre-test, EG displays a stable rate of accurate grammatical structures (7.63 in the pre-test and 6.88 in the post-test), which sharply contrasts with the results reported for the CG which experiences a backslide in the posttest (6.86 vs 2.86). The fact that the EG maintains similar proportion appears to show that activating does, indeed, benefit grammar acquisition and it seems to help to neutralize purported difficulties intrinsic to the grammatical feature being acquired. It is important to bear in mind that two different grammatical structures have been tested and contrasted: on the one hand, necessity, possibility and advice modal verbs and, on the other hand, the comparative and superlative forms of adjectives. Although different grammatical structures are not straightforwardly comparable, the educational needs forced us to use these precise structures. Even though it is not the ideal situation, the researching necessities always must be adapted and rescheduled according to the reality of the EFL classroom and although it may limit the results reliability it caters for the ecological validity (García Mayo & Villarreal, 2011) of the investigation. Bearing this in mind, it can be stated that the second grammatical point seemed to be somehow more complex for the students than modal verbs as shown by the poor results in the CG. Still, the EG held similar accuracy rates, which underscores the usefulness of activating to boost grammatical acquisition. Our findings suggest that along the lines of Shamla (2010), anticipating and contextualizing new information and knowledge creates stronger links and anchors that allow learners to incorporate, and probably access, the target elements more effectively and easily.

Furthermore, activating seems to push further the acquisition of grammatical aspects and speed up the rate of acquisition. It seems to counterbalance inherent intricacies of grammatical features (while the EG scored similarly the CG performed notably poorer), which increases its suitability for the secondary EFL classroom extending the benefits of activating from CLIL contexts (Dale et al., 2010) to secondary EFL settings. Our results point to the fact that activating or accessing previous knowledge, should also be promoted in EFL classrooms.

In addition, the benefits of accessing prior knowledge are observable in a relatively short period of time, 10 sessions ranging from ten to fifteen minutes for about three weeks. No much effort on the side of the teacher is required in order to incorporate such practices into the standard EFL class.

Last but not least, activating also seems to yield very positive attitudes and opinions among the experimental learners, which makes accessing prior knowledge strategies even more valuable as increased motivation has often been correlated with a higher language competence (Nakata, 2006; Prieto & Bueno, 2015; Zenotz, 2012). Consequently, activating strategies should be promoted in the EFL classroom as they turn the EFL classroom into an enjoyable and attractive but also more successful learning environment.

All in all, the comparison between the pre and post-test and the CG and EG has shown that the performance of EG improves conspicuously after the 10 sessions which included initial activating activities. The non-activated group, the CG, fails to show such improvement and even experiences a decline in grammar learning. Thus, extending previous research which have informed on the benefits of activation with EFL students (Majid Hayati, 2009; Maghsoudi, 2012; Roozkhon & Rahmani Samani, 2013; Shabani, 2013) and CLIL contexts (Dale et al., 2010), the current study claims that activation is also outstandingly beneficial for the acquisition of vocabulary and grammar in EFL secondary settings.

To finish with, it must be stated that although activating practices might seem time consuming initially, the benefits accrued from such practices are compelling as they boost vocabulary and grammatical learning, and as a consequence, enhance language learning, which is the ultimate aim of any language learning process.

### VI. Conclusion

Despite some limitations, the present study reveals that activating prior knowledge is a useful strategy and a clear boost to increase the language competence of learners immersed in mainstream EFL classes. The results showed a marked increase in the number of produced words and in the scores of unit tests among the EG, while this improvement could not be observed among the CG. These findings support the few studies carried out in other countries (Maghsoudi, 2012; Majid Hayati, 2009: Shabani, 2013) in which they also reported clear benefits for activating in EFL. Although less compelling, results obtained for the grammatical aspects should also be highlighted as while the CG demonstrated a decline, the EG maintained parallel results to those obtained in the pre-test. This finding suggests that activating is also beneficial for grammatical structures although the reasons behind such performance cannot be taken as definitive, various are the causes raised to explain such performance: the permeability of grammar to teaching practices; the (lack of) short-term impact on rate of acquisition (Ferris, 2011), the differences in the compared language structures, time constraints and the fact that other grammatical aspects might have been improved but not measured. Therefore, a future research proposal could be testing the treatment over a longer period of time in order to prove its effectiveness in terms of grammar acquisition and consolidation. Additionally, a delayed post-test may be passed on

to the same students in order to see the long-run effects of the activation after a period of no treatment. Nevertheless, the significant improvement observed in UT5 indicates that in a more global scale EG learners have been able to transfer the advantages obtained from activating to other tasks and skills.

Furthermore, learners participating in the current study found the activities motivating and engaging and thought that they unquestionably helped them improve their language competence. Such a positive response cannot be ignored and actions to sustain increased motivation levels should be undertaken, particularly among secondary learners who have frequently been reported to show little or no motivation or willingness to learn a foreign language (see, for instance, Tena, 2009).

As a concluding remark it should be stated that, as expected, activating seems to be effective in order to build up new language upon the learners' prior knowledge. Equally, activating activities have proved valid in order to raise the students' interest and motivation, enhancing the English learning process and, consequently, improving their results even after a short period of treatment. Although the size of the sample may not be considered big enough in order to generalize the results, the conclusions derived seem promising. Hence, teachers are expected to take this initiative as an upgrade since activating seemed to improve the learners' love for the subject, their willingness to learn, engagement as well as their production rates.

## VII. References

Cambridge University Press (2010): Placement Test < http://www2.klett.de>.

- Coyle, D. (2007): «Content and Language Integrated Learning: Towards a Connected Research Agenda for CLIL pedagogies», *The International Journal of Bilingual Education and Bilingualism*, n° 10, pp. 543-562. Doi: https://doi.org/10.2167/ beb459.0.
- Cummins, J. (1984): *Bilingualism and special education: Issues in assessment and pedago*gy. Clevedon, Multilingual Matters.
- Dale, L. & Tanner, R. (2012): *CLIL Activities A resource for subject and language teachers*, Cambridge, Cambridge University Press.
- Dale, L., Van der Es, W. & Tanner, R. (2010): *CLIL skills*, Harlem, European Platform, Universidad de Leiden.
- Dochy, F., Segers, M. & Buehl, M. M. (1999): «The relation between assessment practices and outcomes of studies: the case of research on prior knowledge»,

*Review of Educational Research*, n° 69 (2), pp. 145-186, <http://journals.sagepub. com/doi/pdf/10.3102/00346543069002145>.

- Dole, J. A., Valencia, S. W., Greer, E. A. & Wardrop, J. L. (1991): «Effects of two types of prereading instruction on the comprehension of narrative and expository text», *Reading Research Quarterly*, n° 26 (2), pp. 142-159. Doi: http://dx.doi. org/10.2307/747979
- Evans, V. & Dooley, J. (2010): Spark 2, Berkshire, Express Publishing.
- Ferris, D. R. (2011): *Treatment of Error in Second Language Student Writing*, Michigan, University of Michigan Press.
- García Mayo, M. P. & Villarreal, I. (2011): "The development of suppletive and affixal tense and agreement morphemes in the L3 English of Basque-Spanish bilinguals", Second Language Research, n° 27, pp. 129-149. Doi: 10.1177/0267658310386523
- Graves, M. F., Cooke, C. L. & Laberge, M. J. (1983): «Effects of previewing difficult short stories on low ability junior high school students' comprehension, recall, and attitudes», *Reading Research Quarterly*, n.º 18 (3), pp. 262-276. Doi: http://dx.doi.org/10.2307/747388
- Langer, J. A. (1984): «Examining background knowledge and text comprehension», *Reading Research Quarterly*, n° 19(4), pp. 468-481. Doi: 10.2307/747918
- Long, S. A., Winograd, P. N. & Bridget, C. A. (1989): "The effects of reader and text characteristics on imagery reported during and after reading", *Reading Research Quarterly*, n° 24(3), pp. 353-372. Doi: 10.2307/747774
- Maghsoudi, N. (2012): «The Impact of Schema Activation on Reading Comprehension of Cultural Texts Among Iranian EFL Learners», *Canadian Social Science*, n° 8 (5), pp. 196-201, <http://www.cscanada.net/index.php/css/article/view/j. css.1923669720120805.3131>.
- Majid Hayati, A. (2009): «The Impact of Cultural Knowledge on Listening Comprehension of EFL Learners», *English Language Teaching*, n° 2 (3), pp. 145-152. Doi: http://dx.doi.org/10.5539/elt.v2n3p144
- Marsh, D. (2002): CLIL/EMILE The European Dimension: Actions, Trends and Foresight Potential, Brussels, the European Union.
- McKeown, M. G., Beck, I. L., Sinatra, G. M. & Loxterman, J. A. (1992): «The relative contribution of prior knowledge and coherent text to comprehension», *Reading Research Quarterly*, n° 27(1), pp. 78-93, <https://files.eric.ed.gov/fulltext/ ED330991.pdf>.
- Mehisto, P., Marsh, D. & Frigols, M. (2008): Uncovering CLIL: Content and Language Integrated Learning in Bilingual and Multilingual Education. Oxford, Macmillan.
- Nakata, Y. (2006): *Motivation and Experience in Foreign Language Learning*. Oxford, Peter Lang.
- Prieto, A. & Bueno, M. C. (2015): «The influence of socio-economic background, personal effort and motivation on English proficiency», *Huarte de San Juan*.

*Filología y Didáctica de la Lengua*, nº 15, pp. 43-65, <http://academica-e.unavarra. es/handle/2454/20371>.

- Roozkhon, M. & Rahmani Samani, E. (2013): "The Effect of Using Anticipation Guide Strategy on Iranian EFL Learners' Comprehension of Culturally Unfamiliar Texts", *Mediterranean Journal of Social Sciences*, nº 4(6), pp. 127-140. Doi: 10.5901/mjss.2013.v4n6p127
- Shabani, M. (2013): «The Effect of Background Knowledge on Speaking Ability of Iranian EFL Learners», *International SAMANM Journal of Marketing and Management*», n° 1(1), pp. 25-33, <http://www.samanmjournals.org/wp-content/uploads/ The-Effect-of-Background-Knowledge-on-Speaking-Ability-of-Iranian-EFL-Learners1.pdf>.
- Shamla, K. (2010): *The Effectiveness of a Suggested Program Based on Prior Knowledge to Develop Eighth Graders' English Reading Comprehension Skills*, The Islamic University of Gaza, <a href="http://library.iugaza.edu.ps">http://library.iugaza.edu.ps</a>.
- Stevens, K. C. (1980): "The effect of background knowledge on the reading comprehension of ninth graders", *Journal of Reading Behavior*, n° 12(2), pp. 151-154. Doi: 10.1080/10862968009547365
- Stevens, K. C. (1982): «Can we improve reading by teaching background information?», *Journal of Reading*, n° enero, pp. 326-329, <http://www.jstor.org/stable/40030380>.
- Strangman, N. & Hall, T. (2004): Background Knowledge: Curriculum Enhancement Report, Wakefield, NCAC, <a href="http://aim.cast.org">http://aim.cast.org</a>>.
- Tobias, S. (1994): «Interest, prior knowledge, and learning», *Review of Educational Research*, n° 64(1), pp. 37-54. Doi: https://doi.org/10.3102/00346543064001037
- Villarreal, I. (2011): Tense and Agreement in the Non-Native English of Basque-Spanish Bilinguals: Content and Language Integrated Learners vs. English as a School Subject Learners, Bilbao, Universidad del País Vasco. Doi: 10.13140/RG.2.2.25460.96644.
- Zenotz, M. V. (2012): «Motivación en el aprendizaje de lenguas: estado de la cuestión», *Huarte de San Juan. Filología y Didáctica de la Lengua*, nº 12(1), pp. 75-81, <a href="https://academica-e.unavarra.es/handle/2454/9359">https://academica-e.unavarra.es/handle/2454/9359</a>>.