

# How Wiki-based Tasks, and Forums Favor University Students' Writing Skills and Promote Collaborative Autonomy

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## ABSTRACT

This study explores university students' perceptions of wiki-based tasks, and forums as learning strategies to improve their writing skills and to promote collaborative autonomy. We present the outcomes of a quantitative research, an ex-post-facto non-experimental design. The participants were 358 students from the third year of the Degree in Primary Education: English. They attended to the Faculty of Education at the Pontifical University of Salamanca, and were all enrolled in the subject English I. Based on the analysis of the results, there are evidences of the improvement of their level of the grammatical and discourse competences, of their confidence in the second language as well as in their vocabulary and knowledge of the English culture. The findings of the study shed light on the effectiveness of wiki-based activities, and forums to support autonomous and cooperative learning. The results also suggested that the participants were actively involved in the development of the wiki-based activities. They took decisions and assumed individual responsibilities and roles. Moreover, they shared their knowledge in the democratic learning community of collaboration developed.

## CCS Concepts

• Applied computing → Education → Learning management systems

## Keywords

Wiki-based tasks; forum; English as second language; collaborative autonomy

## 1. INTRODUCTION

The aim of teaching a second language is to provide students with the necessary skills to communicate with native and non-native speakers. The communicative competence model proposed by Usó-Juan and Martínez-Flor [27] showed the necessity of the development of the four language skills (listening, speaking, reading & writing) “since the fact of being able to interpret and produce a spoken and written piece of discourse is the means to achieve successful communication”

In our study we focused particularly on the written skills, in the skills that refer to reading comprehension and written expression. According to Woolley [30], reading comprehension can be defined as “the process of making meaning from text”, that is to say “to gain an overall understanding of what is described in the text rather than obtain meaning from isolated words or sentences.” Reading comprehension implied not only to decode a text, but also to understand it [8, 23]. On the other hand, writing can be defined as “the written products of thinking, drafting, and revising that require specialized skills on how to generate ideas, how to organize them coherently, how to use discourse markers and rhetorical conventions coherently into a written text, how to revise text for clearer meaning and how to edit text for appropriate grammar and how to produce a final products” [18]. That implies that learners of the second language must control different aspects such as vocabulary, grammar, punctuation, content, etc., as well as other variables that go beyond to the sentence level as cohesion and coherence of the text [15, 26]. And it also involves complex processes of planning, drafting, editing, reviewing and revising [12, 13, 24]

In the field of teaching a second language, technology has always occupied a relevant position. Web 2.0 tools have increased the possibilities to learn and immerse in a foreign language [21]. In our research we have specially focused on the use of wiki and forum. This study seeks to extend the existing research on the use of these tools in second language learning (SLL) and give a new perspective of their use. We have not only concentrated on their use to improve students' written skills, but also on participants' perceptions about their contribution to promote autonomous and collaborative learning.

## 2. METHOD

We have employed a quantitative research [14], an ex-post-facto non-experimental design, [9]. Cooper & Schindler [6] stated that it is “a method of teasing out possible antecedents of events that have happened and cannot, therefore, be controlled engineered or manipulated by the investigator”. The researchers observe and analyze the events as they happen in their natural context without manipulating the independent variables deliberately [14]. The students enrolled in the compulsory subject English I formed the natural groups that we studied.

### 2.1. Objectives

The aim of the present study was to know the students’ perception about the efficacy of wiki-based activities, and forums to improve their written skills and promote the collaborative autonomy.

We tried to test these hypotheses:

H1. Students will improve significantly their writing skills and English culture through the development of wiki-based activities.

H2. Wiki-based activities will allow carrying out a collective authorship and the construction of knowledge.

H3. Wiki-based activities will support autonomous and cooperative learning.

H4. Forums will support a dynamic process, the communication with peers and the exchange of ideas.

### 2.2. Population and Sample

Three hundred and fifty-eight students at the Faculty of Education at the Pontifical University of Salamanca participated in the present study. The sample was comprised of 83 men (23.2%) and 275 women (76.8%), having an average age of 29.49 (SD = 5.99). They were divided into four groups. Of the 358 cases, 88 (24.6%) were between 20-24 years old, 92 (25.7%) were between 25-29 years old, 123 (34.4%) were between 30-34 years old, and 55 (15.4%) were 35 years old or older. All the participants were enrolled in the subject English I, a compulsory subject of the Degree in Primary Education: English. They all had already finished a previous university Degree (n = 358), highlighting that 70.70% had completed a Degree in Primary Education (n=253). Regarding their professional status, 82.1% (n=294) were already working, and 70.7% (n=253) had a job related to education, holding the position of teachers in infant (22.1%), primary (28.2%) and secondary education (7.3%). A few of them even were working in different level: infant and primary education (7%), or primary and secondary education (6.1%). Moreover the learners had an intermediate level of English, B1 according to the Common European Framework of Reference for Languages (CEFR) [7].

### 2.3. Variables and Instrument

A pre-test and a post-test were used to operationalize the variables and collect the data of the study. These tests were uploaded to the virtual platform Moodle, so all the participants needed a username and a password to get access and complete them.

We had the collaboration of a panel of experts who revised the tests and issued a report regarding the test format, the number of items, the appropriate scales of measurement, the readability of the test, and the comprehension of the test to collect the necessary information to address the objectives of the research. Their final report was taken into consideration to make the changes in each survey.

To know the internal consistency of the pre-test and post-test, we calculated the Cronbach’s alpha. In the case of the pre-test the alpha coefficient was  $\alpha=0.853$ , a similar result was obtained in the post-test  $\alpha=0.845$ . From these alpha coefficients we inferred that the items of both surveys had high internal consistency.

The pre-test was a 19-item questionnaire and the post-test contained 30 items. Both tests were divided into three parts: students’ personal details, English as a second language, and technology. They contained several types of questions: open, close, yes/no, short answer, multiple choice, and Likert scale.

#### 2.3.1. Students’ Personal Details

The first part of the tests included students’ personal details about age, gender, studies, professional status, and education level in which they worked. It contained a total of 5 items ranged from open, close, yes/no to multiple-choice.

#### 2.3.2. English as a Second Language

The second part of the pre-test (9 items) and post-test (9 items) referred to English as a second language. In the pre-test participants were asked to estimate the years that they had studied English and the hours a week that they dedicated to study it. Answers were coded using open questions.

To provide measures about their level of writing, reading, vocabulary, grammatical competence, discourse competence, culture, and their confidence in the second language, participants were asked to self-assess these aspects at the beginning and at the end of the course. We coded their answers with a Likert scale ranged from ‘excellent’ to ‘poor’. For our study ‘Poor’ was coded as 1; ‘Fair’ as 2; ‘Good’ as 3; ‘Very good’ as 4 and ‘Excellent’ as 5.

In the post-test we also included questions that referred to the level of English of their peers, and the level of the written activities. Answers were coded using a Likert scale ranged from ‘excellent’ to ‘poor’. For our study ‘Poor’ was coded as 1; ‘Fair’ as 2; ‘Good’ as 3; ‘Very good’ as 4 and ‘Excellent’ as 5.

### 2.3.3. Technology

The third part of both tests referred to technology. In the pre-test we included 5 items. Participants were asked about their digital competence, their knowledge about the use of a wiki or a forum. The answers for these first three questions were coded with a Likert scale ranged from 'excellent' to 'poor'. For our study 'Poor' was coded as 1; 'Fair' as 2; 'Good' as 3; 'Very good' as 4 and 'Excellent' as 5. Students were also asked about the frequency of participation in forums and in wiki-based activities. We coded their answers using a five-point Likert scale ranged from 'everytime' to 'never'. For this study, 'Never' was coded as 1; 'Almost never' as 2; 'Sometimes' as 3; 'Almost everytime' as 4 and 'Everytime' as 5.

The post-test contained 16 items. Students were asked to self-assess their improvement in their digital competence, using a five-point Likert scale to code their answers. That scale ranged from 'excellent' to 'poor'. For our study 'Poor' was coded as 1; 'Fair' as 2; 'Good' as 3; 'Very good' as 4 and 'Excellent' as 5. We included items about forums to gather data on the participants' perception of the efficacy of forum to communicate with their project partners, to get consensus, to resolve conflicts, to provide a constructive feedback, and to support a dynamic process. We used a five-point Likert scale to code students' answers. That scale ranged from 'absolutely effective' to 'absolutely ineffective'. For our research 'Absolutely ineffective' was coded as 1; 'Very ineffective' as 2; 'Neither effective nor ineffective' as 3; 'Very effective' as 4 and 'Absolutely effective' as 5. Finally, we included questions about the wiki to gather data on the participants' perception of the efficacy of this tool to expand their knowledge in the second language, to construct knowledge, to reflect about the language itself, to develop a community project, to create a learning community, to create a democratic community of collaboration, to carry out a collective authorship, to support autonomous and cooperative learning, and to change roles: authors, editors, assessors, & guides. We used a five-point Likert scale to code students' answers. That scale ranged from 'absolutely effective' to 'absolutely ineffective'. For our research 'Absolutely ineffective' was coded as 1; 'Very ineffective' as 2; 'Neither effective nor ineffective' as 3; 'Very effective' as 4 and 'Absolutely effective' as 5.

## 2.4. Data Collection and Analysis

We collected the data in the subject English I at the beginning and at the end of the academic year. Then these data were coded to enter them in the Statistical Package for the Social Sciences (SPSS) version 24. We carried out different statistical analyses, taking into account the nature of the variables: descriptive statistics (frequencies), and inferential (paired sample t-tests, and analysis of variance: ANOVA).

## 3. RESULTS

The results obtained in the descriptive and inferential analysis are shown in the following subsections: English as a second language, technology, efficacy of wiki-based activities, and efficacy of forums.

### 3.1. English as a Second Language

According to the results, 76% of the participants (n=272) reported studying English at least 10 hours a week. With regards to how many years they had studied English, most of the participants (84%, n=301) stated that they had learned English for more than 10 years while only 16% of them (n=57) had less than 5 years of experience.

Concerning the dependent variables that refer to the participants' self-assessment of their level of writing, reading, vocabulary, grammatical competence, discourse competence, culture, and confidence in the second language (L2), we checked if there were statistically significant differences (CI 95%) between all these items of the pre-test and post-test (Table 1). We rejected the null hypothesis, and affirmed that there was a relationship between the improvement of the students' self-assessment of their level of these items, and the learners' perception about the efficacy of the written e-activities developed using the asynchronous tools: wiki and forum (H1).

With regard to the dependent variable of the post-test that referred to the level of the written activities developed, 55.9% of the participant (n=200) considered that they were very good, 22.3% (n=80) stated that they were good, and 19% (n=68) affirmed that were excellent. Contrary to these results, 0.6% (n=2) and 2,2% (n=8), respectively, considered that the level of these activities was poor or fair. The participant were also asked to assess their peers' level of English to develop the activities, in this case, the majority of them, 51.4% (n=184), asserted that it was very good, 25.1% (n=90) good, and 21.2% (n=76) excellent. Just a small percentage of the students assessed their level as poor (0.3%, n=1) or fair (2%, n=7).

**Table 1. Paired Samples Correlations**

		t	Correlation	Sig.
Pair 1	Writing & Writing	-21,278	.130	.014
Pair 2	Reading & Reading	-18,942	.135	.010
Pair 3	Vocabulary & Vocabulary	-18,207	-.116	.028
Pair 4	Grammatical Competence & Grammatical Competence	-20,057	.113	.033
Pair 5	Discourse Competence & Discourse competence	-24,257	.108	.042
Pair 6	Culture & Culture	-26,117	-.121	.023
Pair 7	Confidence in L2 & Confidence in L2	-10,000	.110	.038

\*95% Confidence Interval of the Difference. n=358

### 3.2. Technology

The data analysis has led to results that show that 35.5% (n=127) of the participants considered that their digital competence was good, 26.5% (n=95) affirmed that it was very good, and 23.5% (n=84) estimated that it was excellent. A small percentage of the students, 0.6% (n=2) and 14% (n=50), respectively, stated that it was poor or fair. The data analysis also indicated that there were statistically significant differences (CI 95%) between the different age groups ( $p=.000$ ) on this dependent variable. The Scheffe post-hoc test revealed that, specifically, there were statistically significant differences between the mean of the youngest students (20-24 and 25-29) and the groups of students aged between 30 and 34, and between 35 or more than 35 (Table 2). However, there were no significant differences between the groups of students aged between 20-24, and 25-29. The youngest students (20-24 and 25-29) assessed better their digital competence ( $\bar{x}=4.44$  and  $\bar{x}=4.35$ ) than the oldest ones (30-34,  $\bar{x}=2.80$  and 35 or more than 35,  $\bar{x}=2.73$ ).

**Table 2. Multiple Comparisons. Dependent variable: Digital Competence**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
Scheffe	20-24	30-34	1.638*	.000
		35 or more than 35	1.710*	.000
	25-29	30-34	1.549*	.000
		35 or more than 35	1.621*	.000

\*. The mean difference is significant at the .05 level. n= 358

At the end of the semester the students self-assess their improvement in their digital competence and in that case 55.3% (n=198) and 32.5% (n=116) considered that this competence had improved, and assessed it as excellent and very good, respectively. Just a small percentage of the students assessed it as good (9,8%, n=35), fair (2.2%, n=8), and poor (0.3%, n=1).

Regarding the dependent variables that referred to the frequency of participation in wiki-based activities, and in forums, as well as, their knowledge about the use of a wiki and a forum, we highlighted that more than half of the students had a good knowledge of these tools and had used them frequently. In the case of their participation in wiki-based activities, 41.3% (n=148) stated that they participated sometimes, 12.6% (n=45) almost everytime, and 8.4% (n=30) everytime. Of the 358 cases, 79 (22.1%) had never used them, and 56 (15.6%) almost never. Concerning their participation in forums, 15.1% (n=54) affirmed that they used them sometimes, 27.9% (n=100) almost everytime, and 16.5% (n=59) everytime. 87 participants (24.3%) stated that they had never used them, and 58 participants (16.2%) pointed out that they almost never used them.

The results about the participants' knowledge about the use of a wiki showed that 29.1% (n=104) estimated that their knowledge was very good, 16.5% (n=59) excellent, 15.9% (n=57) good, 27.1% (n=97) poor, and 11.5% (n=41) fair. With regard to their knowledge about the use of a forum, 36.9% (n=132) asserted that their knowledge was good, 28.2% (n=101) very good, 19% (n=68) excellent, 10.3% (n=37) fair, and 5.6% poor.

The analysis of the data of the frequency of participation in forums and wiki-based activities revealed that there were statistically significant differences (CI 95%) between age groups ( $p=.000$  and  $p=.000$ ). The Scheffe post-hoc test (Table 3 & Table 4) showed that there were statistically significant differences between the mean of the youngest students (20-24 and 25-29) and the groups of students aged between 30 and 34, and between 35 or more than 35. However, there were no significant differences between the groups of students aged between 20-24, and 25-29. The youngest students used more frequently these tools (20-24: forums  $\bar{x}=3.94$  and wiki  $\bar{x}=3.41$ ; 25-29: forums  $\bar{x}=3.95$  and wiki  $\bar{x}=3.27$ ) than the oldest ones (30-34: forums  $\bar{x}=2.04$  and wiki  $\bar{x}=2.02$ ; 35 or more than 35: forums  $\bar{x}=1.84$  and wiki  $\bar{x}=2.13$ )

**Table 3. Multiple Comparisons. Dependent variable: Frequency of Participation in Forums**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
Scheffe	20-24	30-34	1.902*	.000
		35 or more than 35	2.106*	.000
	25-29	30-34	1.905*	.000
		35 or more than 35	2.109*	.000

\* .The mean difference is significant at the .05 level. n= 358

There were also statistically significant differences (CI 95%) between age groups ( $p=.000$  and  $p=.000$ ) in the dependent variables that referred to the participants' knowledge of these asynchronous tools.

**Table 4. Multiple Comparisons. Dependent variable: Frequency of Participation in Wiki-Based Activities**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
Scheffe	20-24	30-34	1.398*	.000
		35 or more than 35	1.287*	.000
	25-29	30-34	1.246*	.000
		35 or more than 35	1.144*	.000

\* .The mean difference is significant at the .05 level. n= 358

The Scheffe post-hoc test (Table 5 & Table 6) asserted that there were statistically significant differences between the mean of the youngest students (20-24 and 25-29) and the groups of students aged between 30 and 34, and between 35 or more than 35. The youngest students considered that they knew better these tools (20-24: wiki  $\bar{x}=4.18$  and forum  $\bar{x}=4.28$ ; 25-29: wiki  $\bar{x}=4.17$  and wiki  $\bar{x}=4.09$ ) than the oldest participants (30-34: wiki  $\bar{x}=1.83$  and forum  $\bar{x}=2.74$ ; 35 or more than 35: wiki  $\bar{x}=1.55$  and wiki  $\bar{x}=2.65$ )

**Table 5. Multiple Comparisons. Dependent variable: Knowledge about the Use of Wiki**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
Scheffe	20-24	30-34	2.353*	.000
		35 or more than 35	2.638*	.000
	25-29	30-34	2.354*	.000
		35 or more than 35	2.639	.000

\* .The mean difference is significant at the .05 level. n= 358

**Table 6. Multiple Comparisons. Dependent variable: Knowledge about the Use of Forum**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
Scheffe	20-24	30-34	1.534*	.000
		35 or more than 35	1.621*	.000
	25-29	30-34	1.345*	.000
		35 or more than 35	1.432*	.000

\*. The mean difference is significant at the .05 level. n= 358

### 3.3. Efficacy of Wiki-based Activities

The participants of the study were also asked about the efficacy of the wiki-based activities developed (Table 7) to expand their knowledge in the second language (I21), to construct knowledge (I22), to reflect about the second language (I23), to develop a community project (I24), to create a learning community (I25), to create a democratic community of collaboration (I26), to carry out collective authorship (I27), to support autonomous learning (I28), to support cooperative learning (I29), and to change roles: authors, editors, assessors, and guides (I30).

**Table 7. Efficacy of the Wiki-Based Activities**

	2		3		4		5	
	n	%	n	%	n	%	n	%
I21	9	2.5	65	18.2	151	42.2	133	37.2
I22	7	2.0	55	15.4	203	56.7	93	26.0
I23	16	4.5	57	15.9	198	55.3	87	24.3
I24	10	2.8	60	16.8	192	53.6	96	26.8
I25	2	0.6	60	16.8	201	56.1	95	26.5
I26	2	0.6	61	17.0	212	59.2	83	23.2
I27	2	0.6	57	15.9	210	58.7	89	24.9
I28	3	0.8	61	17.0	218	60.9	76	21.2
I29	5	1.4	65	18.2	211	58.9	77	21.5
I30	6	1.7	65	18.2	201	56.1	86	24.0

Our findings also indicated that there were statistically significant differences (CI 95%) between the age groups in the dependent variables that referred to construct knowledge (p=.000), to develop a community project (p=.000), to create a learning community (p=.000), to create a democratic community of collaboration (p=.000), to carry out collective authorship (p=.000), to support autonomous learning (p=.000), to support collaborative learning (p=.000), and to change roles: Authors, Editors, Assessors & Guides (p=.000). The Scheffe post-hoc test (Table 8) showed that the differences existed between the mean of the youngest (20-24 & 25-29) and the oldest participants (30-34 & 35 or more than 35).

**Table 8. Multiple Comparisons**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
<b>Dependent variable: Efficacy of the Wiki-Based Activities to Construct Knowledge</b>				
20-24: $\bar{x}=4.43$ , 25-29: $\bar{x}=4.30$ , 30-34: $\bar{x}=3.78$ , & 35 or more than 35: $\bar{x}=3.75$				
Scheffe	20-24	30-34	.643*	.000
		35 or more than 35	.680*	.000
	25-29	30-34	.522*	.000
		35 or more than 35	.559*	.000
<b>Dependent variable: Efficacy of the Wiki-Based Activities to Develop a Community Project</b>				
20-24: $\bar{x}=4.33$ , 25-29: $\bar{x}=4.33$ , 30-34: $\bar{x}=3.77$ , & 35 or more than 35: $\bar{x}=3.75$				
Scheffe	20-24	30-34	.567*	.000
		35 or more than 35	.588*	.000
	25-29	30-34	.560*	.000
		35 or more than 35	.581*	.000
<b>Dependent variable: Efficacy of the Wiki-Based Activities to Create a Learning Community</b>				
20-24: $\bar{x}=4.34$ , 25-29: $\bar{x}=4.27$ , 30-34: $\bar{x}=3.88$ , & 35 or more than 35: $\bar{x}=3.84$				
Scheffe	20-24	30-34	.466*	.000
		35 or more than 35	.508*	.000
	25-29	30-34	.393*	.000
		35 or more than 35	.435*	.000
<b>Dependent variable: Efficacy of the Wiki-Based Activities to Create a Democratic Community of Collaboration</b>				
20-24: $\bar{x}=4.25$ , 25-29: $\bar{x}=4.26$ , 30-34: $\bar{x}=3.84$ , & 35 or more than 35: $\bar{x}=3.85$				
Scheffe	20-24	30-34	.414*	.000
		35 or more than 35	.398*	.000
	25-29	30-34	.422*	.000
		35 or more than 35	.406*	.000
<b>Dependent variable: Efficacy of the Wiki-Based Activities to carry out Collective Authorship</b>				
20-24: $\bar{x}=4.28$ , 25-29: $\bar{x}=4.25$ , 30-34: $\bar{x}=3.91$ , & 35 or more than 35: $\bar{x}=3.85$				
Scheffe	20-24	30-34	.365*	.000
		35 or more than 35	.421*	.000
	25-29	30-34	.339*	.000
		35 or more than 35	.395*	.000
<b>Dependent variable: Efficacy of the Wiki-Based Activities to Support Autonomous learning</b>				
20-24: $\bar{x}=4.25$ , 25-29: $\bar{x}=4.26$ , 30-34: $\bar{x}=3.82$ , & 35 or more than 35: $\bar{x}=3.73$				
Scheffe	20-24	30-34	.430*	.000
		35 or more than 35	.526*	.000



	25-29	30-34	.438*	.000
		35 or more than 35	.534*	.000

**Dependent variable: Efficacy of the Wiki-Based Activities to Support Cooperative Learning**

20-24:  $\bar{x}$ =4.22, 25-29:  $\bar{x}$ =4.28, 30-34:  $\bar{x}$ =3.78, & 35 or more than 35:  $\bar{x}$ =3.71

Scheffe	20-24	30-34	.436*	.000
		35 or more than 35	.509*	.000
	25-29	30-34	.500*	.000
		35 or more than 35	.574*	.000

**Dependent variable: Efficacy of the Wiki-Based Activities to Change Roles: Authors, Editors, Assessors & Guides**

20-24:  $\bar{x}$ =4.33, 25-29:  $\bar{x}$ =4.29, 30-34:  $\bar{x}$ =3.76, & 35 or more than 35:  $\bar{x}$ =3.69

Scheffe	20-24	30-34	.575*	.000
		35 or more than 35	.642*	.000
	25-29	30-34	.535*	.000
		35 or more than 35	.603*	.000

\* .The mean difference is significant at the .05 level. n= 358

### 3.4. Efficacy of Forums

Regarding the results of the efficacy of forums to communicate with their project partners, the majority of the participants considered that they were very effective (50.6%, n=181) and absolutely effective (23.7%, n=85). Similar results were obtained in the case of their efficacy to get consensus (very effective: 48.9%, n=175 & absolutely effective: 26.3%, n=94), to resolve conflicts (very effective: 60.3%, n=216 & absolutely effective: 20.7%, n=74), to provide a constructive feedback (very effective: 57.3%, n=205 & absolutely effective: 23.2%, n=83), and to support a dynamic process (very effective: 56.7%, n=203 & absolutely effective: 25.7%, n=92). From the data, we emphasized that there were statistically significant differences (CI 95%) between these four dependent variables and the age group ( $p=.000$ ,  $p=.000$ ,  $p=.000$ ,  $p=.000$  &  $p=.000$ ). The Scheffe post-hoc test (Table 9) showed that the differences existed between the mean of the youngest (20-24 & 25-29) and the oldest participants (30-34 & 35 or more than 35).

## 4. CONCLUSIONS AND DISCUSSION

The findings of this study shed light on the effectiveness of wiki-based activities and forums in the development of the second-language students' written skills [28, 29], and their impact on the collaborative autonomy [2, 3, 4] in a blended learning course. The learning outputs and the learners' improvements in their level of the grammatical and discourse competences, in their confidence in second language (L2) as well as in their vocabulary and knowledge of the English culture are in line with the positive results pointed out previously.

This study demonstrates that learner autonomy [10, 22] was fostered through the implementation of the wiki-based activities about the English culture. The development of the tasks gave rise to the students' engagement with their learning [19], since they were actively involved in the development of the wiki-based activities, they took decisions and assumed individual responsibilities in the group what led to a more effective learning process, focused on the goals of the second language acquisition (SLA). Data showed the effectiveness and potential of wiki-based activities to expand students' knowledge of the second language, to allow them to reflect about English and be involved in the construction of knowledge [1, 20, 25].

The research also concluded that according to learners' perception, the way in which the wiki-based activities were designed also implied the creation of a learning community. A democratic community of collaboration that allowed carrying out a collective authorship that supported the cooperative [5] and autonomous learning [11] in which the participants assumed different roles as authors, editors, assessors, and guides.

This study provides further evidence of the learners' satisfaction towards the use of forums to communicate with their project partners as well as to get consensus about the development of the activities, to resolve the conflicts that took place, to provide a constructive feedback, and what is more to support a dynamic process [16, 17].

In summary, our study and its results have demonstrated the potential of the wiki-based activities, and forums to carry out tasks that favor university students' writing skills and to promote collaborative autonomy.



**Table 9: Multiple Comparisons**

	(I) Group of Age	(J) Group of Age	Mean Difference (I-J)	Sig.
<b>Dependent variable: Efficacy of Forums to Communicate with their Project Partners</b>				
20-24: $\bar{x}$ =4.29, 25-29: $\bar{x}$ =4.17, 30-34: $\bar{x}$ =3.66, & 35 or more than 35: $\bar{x}$ =3.65				
Scheffe	20-24	30-34	.626*	.000
		35 or more than 35	.633*	.000
	25-29	30-34	.513*	.000
		35 or more than 35	.519*	.000
<b>Dependent variable: Efficacy of Forums to Get Consensus</b>				
20-24: $\bar{x}$ =4.39, 25-29: $\bar{x}$ =4.17, 30-34: $\bar{x}$ =3.60, & 35 or more than 35: $\bar{x}$ =3.62				
Scheffe	20-24	30-34	.794*	.000
		35 or more than 35	.773*	.000
	25-29	30-34	.577*	.000
		35 or more than 35	.556*	.000
<b>Dependent variable: Efficacy of Forums to Resolve Conflicts</b>				
20-24: $\bar{x}$ =4.25, 25-29: $\bar{x}$ =4.24, 30-34: $\bar{x}$ =3.74, & 35 or more than 35: $\bar{x}$ =3.82				
Scheffe	20-24	30-34	.511*	.000
		35 or more than 35	.435*	.000
	25-29	30-34	.497*	.000
		35 or more than 35	.421*	.000
<b>Dependent variable: Efficacy of Forums to Provide a Constructive Feedback</b>				
20-24: $\bar{x}$ =4.34, 25-29: $\bar{x}$ =4.23, 30-34: $\bar{x}$ =3.77, & 35 or more than 35: $\bar{x}$ =3.73				
Scheffe	20-24	30-34	.571*	.000
		35 or more than 35	.618*	.000
	25-29	30-34	.454*	.000
		35 or more than 35	.501*	.000
<b>Dependent variable: Efficacy of Forums to Support a Dynamic Process</b>				
20-24: $\bar{x}$ =4.37, 25-29: $\bar{x}$ =4.34, 30-34: $\bar{x}$ =3.79, & 35 or more than 35: $\bar{x}$ =3.80				
Scheffe	20-24	30-34	.577*	.000
		35 or more than 35	.568*	.000
	25-29	30-34	.547*	.000
		35 or more than 35	.537*	.000

\* .The mean difference is significant at the .05 level. n= 358

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