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NEW FORMS OF NEGOTIATING MEANING ON THE MOVE: THE USE OF MOBILE-BASED CHATTING FOR FOREIGN LANGUAGE DISTANCE LEARNING

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ABSTRACT

This article analyzes the adequacy of mobile chatting via WhatsApp for the enhancement of a type of spontaneous and colloquial written interaction that has a strong connection with oral discourse. This is part of a research project undertaken with Spanish students of German as a foreign language with a beginner's or quasi-beginner's level. The article describes the context and parameters of this learning experience and the methodology followed. Then, an analysis of the results is undertaken in terms of student response, attitude and participation, and also in terms of the meaning negotiation strategies and language used by the participants. Finally, conclusions are drawn regarding the adequacy of the WhatsApp technology for the practice and improvement of interactive skills for foreign language students at the initial learning levels.

KEYWORDS

Foreign language learning, mobile-based chatting, WhatsApp technology, the discourse of spontaneous interaction

1. INTRODUCTION

The use of mobile devices, especially mobile phones, has risen considerably in the new millennium, with nearly 6 billion mobile cellular subscriptions according to figures published by the International Telecommunication Union¹. With a society 'on the move', constantly connected thanks to the increasingly technological sophistication of mobile devices and the speed of wireless networks, it was a matter of time until tablet PCs, smartphones, etc. started to be used for educational purposes. The concept of mobile learning has several implications (Kukulska-Hulme & Traxler, 2005): it can refer to learner mobility, since educational activities are no longer fixed to a physical location, but it also signifies the fact that all these small, portable devices are naturally mobile. The fundamental novelty of this way of learning is that it has led to a re-definition of the learning experience, which now can take place anywhere, anytime and for last as much or as little as the learner wishes.

The application context is as flexible as the device itself, ranging from the classroom, where communication applications, interactive displays, and visual features can be used to enhance collaborative learning activities; the workplace, where the learning takes place mostly on demand (a concept often referred to in the literature as just-in-time learning or JIT; Novak, Patterson, Gavrin & Christian, 1999). These days mobile technology plays an increasingly significant role in formal education, non-formal training and the rich continuum of modalities in between (Marsick & Watkins, 2001). In fact, it has been identified as a key instrument in the learning journey between informal and formal education often sought after by policy makers and in lifelong learning (UNESCO, 2012), a concept that goes beyond the improvement of working skills and enhances social inclusion, active citizenship, and personal development (European Commission, 2001). The potential of mobile devices as learning tools, which was compared by Allen (2011) to a 'Swiss army knife', and is present in the rather large number of ways in which people actually acquire knowledge (and hence the plethora of terms coined ceaselessly in the literature, such as autonomous learning, spontaneous learning, self directed learning, incidental learning, PLEs –Personal Learning Environments-, etc.).

The subject matter of the learning that can be undertaken with the support of a mobile device is equally versatile. Some obvious topics of study are those that can be benefitted from the learner's mobility, such as fieldwork. Shih, Chuang & Huang (2010), Stoyanova-Petrova (2011) and Song, Wong, & Looi (2012) report their respective experiences using enquiry-based and performance-centered mobile learning to enhance active, fieldwork education and their impact on students' learning. The authors argue in favor of both fieldwork as a crucial means of implementing theory in real life situations, particularly in professional studies like engineering, social sciences and science, and the existence of a natural link between fieldwork and mobile technology.

Within the classroom, mobile technology can replace cumbersome resources such as textbooks, visual aids, and presentation technology, which have severe limitations for the learning of skill-based topics that require proactive (human) participation and interaction, such as psychology and pedagogy. Although many people would probably predict that face-to-face classroom work is naturally the most effective way to elicit effective understanding and collaboration, research such as Chen, Jiang, Yang & Lee (2007), shows that in our technology-driven society, thanks to mobile technology, elementary science students can

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¹ http://www.itu.int/ITU-D/ict/facts/2011/index.html

access a wide range of multimodal samples and actually take a more dynamic role, manipulating information and engaging in meaning negotiation and construction. Other authors also point out that mobile technology entails a rather interesting potential for augmenting the flexibility and expressiveness of learning objects in arts and humanities by means of augmented reality based simulations (Liestol, 2011).

Foreign languages naturally combine with mobile technology as telephones are one of the main voice communication tools used all over the world (as the International Communications Union [2007]'s overwhelming data point out), not to mention the increasing number of additional capabilities of modern smartphones and the like. The field of Mobile Assisted Language Learning (MALL) has had uninterrupted prolific activity since the beginning of the present century, with extremely wide language coverage, app development, lines of research, and academic dissemination via publications (see, for example, Collins, 2005; Valarmathi, 2011; Kukulska-Hulme, 2013; Castrillo, Martín-Monje & Bárcena, 2014; Read, Bárcena & Kukulska-Hulme, in press). Although MALL is still far from mainstream in foreign language classrooms, as expected it has captured the attention of distance learning universities, where there are less practical aspects to take into consideration that in face-to-face tertiary institutions (due to age of the students, their general possession of at least a mobile device with wireless Internet connection, their readiness to engage into technology-based learning activities as part of their online courses, etc.).

The following sections present a piece of research undertaken to explore the potential of mobile-based chatting for developing language communication-related competences in German on the part of Spanish students in a distance learning university.

2. COLLABORATIVE MOBILE-BASED ALTERNATIVES IN FOREIGN LANGUAGE DISTANCE LEARNING

As mentioned in the introduction, there has been an increasing interest in the development of MALL, with special issues dedicated over the last few years in some of the most relevant journals: *ReCALL* (Shield & Kukulska-Hulme, 2008) or *Language Learning and Technology* (Sotillo & Stockwell, 2013), and hundreds of applications that cover a wide range of language learning materials: dictionaries, phrasebooks, educational games or even full language courses. Apart from these resources which are specifically designed for foreign languages, many practitioners and researchers are exploring the potential of these software applications for language learning. A good example is the linguistic application of tools related to social interaction and collaboration, such as Twitter, Facebook, etc. (see, for instance, Harrison & Thomas, 2007), a line of research which has led to a new field: Social-Media Language Learning (or SMLL; Torne & Black, 2007).

Other social technologies are Short Message Service (SMS) and WhatsApp, instant messaging applications for smartphones that allows mobile-based chatting and offer collaborative learning. A number of experts claim their usefulness, such as Cavus (2008), who specifically investigates the potential of learning new technical English language words using SMS text messaging. The system, developed by the authors, was tested with undergraduate students. The knowledge of students before and after the experiment was measured, the conclusion being that the educational tool contributed to the students' success. Goh, Seet & Chen (2012) present an experimental design to investigate the impact of persuasive SMS on

students' self-regulated learning strategies while attending an introductory university course. The study demonstrates a positive impact and suggests that the intervention is able to improve students' self-regulated learning effort compared to the control group. Therefore, the study suggests that practitioners should consider the adoption of the persuasive SMS intervention by using the principles of persuasive technology for sending SMS messages especially for the high-risk students. The fact that WhatsApp is free (for most people) makes it particularly attractive for general applicability. Gutierrez-Colón (2013) presents a project with university students in Spain to explore the benefits and drawbacks of using instant short messaging systems such as WhatsApp to improve learners' reading skills in English as a foreign language. Riyanto (2013) also explores the use of this social networking technology for the four language skills: reading, writing, speaking and listening, the process involving sharing questions on diverse topics, sending them to all the members in the group through a broadcast, engaging them into meaningful discussions. This is the general context of the research project presented in this article, whose main purpose was to explore the potential of this software for meaning negotiation in a foreign language learning context, together with its affordances in collaborative work and meaning negotiation.

This educational initiative is part of the Research Networks for Teaching Innovation put forward by the Spanish University for Distance Education (UNED) with the aim of encouraging innovative practices in tertiary education in Spain. The program is part of the European Higher Education Area (EHEA) framework and covers the following fields: curriculum design based on competences, implementation of active learning methodologies, models for formative evaluation and new forms of tutoring adapted to the EHEA. The project presented here belongs to the second type, implementation of active learning methodologies, which is something crucial in our institution, given the profile of our students. The UNED is the main university in Spain to provide distance education to adults and has over 260,000 students, with an average age of over 35 (www.uned.es). Since its beginnings it has strived to apply the latest technological developments to learning, with its own virtual campus, called aLF, and Web-conferencing system (AVIP). As for language learning applications, the ATLAS (Applying Technology to LAnguageS: http://atlas.uned.es) research group has been working in the multidisciplinary field of learning technologies and Computer-Assisted Language Learning (CALL) for over fifteen years now, being the three authors of this article part of that group.

It is, therefore, natural to try and find learning formulas that adapt to the changing profile and needs of our students, who are "distance learners on the move": familiar with e-learning methodology and also users of smartphones and social-networking apps such as WhatsApp. There has been a lot of criticism against the use of communication technology, especially in text messaging, because of the usual careless and faulty language used (characterized by an extreme simplification of spelling, a reduction of morphemes and somewhat telegraphic syntax; Mphahlele & Mshmite, 2005). The interest of this paper lies in the use of this software for collaborative language learning, drawing on tools that they already use and redirecting them for the specific educational purpose of meaning negotiation in a foreign language.

3. RESEARCH METHODOLOGY

According to Cohen et al. (2011), the qualitative-quantitative distinction in the research field of applied linguistics is generally oversimplified because it is necessary to consider the following three variables: the data collection method (experimentally or not), the type of data yielded (qualitative or quantitative) and the type of analysis conducted (statistical or interpretive). These three variables should provide with two 'pure' research paradigms: the 'exploratory-interpretive' (non-experimental, qualitative data, interpretive analysis) and the 'analytical-nomological' (experimental, quantitative data, statistical analysis). In addition, Nunan (1992) presents six hybrid forms. The present study follows one of these mixed paradigms: the 'experimental-quantitative-interpretive', according to which authors examined first some quantitative data in order to reveal participation patterns, obtaining statistics through experimental study and survey analysis. The use of qualitative data gathering techniques such as questionnaires enabled the collection of background information about students' experience with technology-enhanced language learning.

A qualitative approach was adopted in this research work to investigate the negotiation of meaning (modification of input and interaction) carried out by the students during the WhatsApp activity, analyzing the written interaction in the chat sessions. With that aim, the functions and content of contributions were analysed in the written conversations generated via WhatsApp, to clarify how students negotiate in order to make sense and create meaning in this language interaction.

3.1 Participants and Procedures

Over a period of six weeks, 85 volunteers, initial learners of German as a Foreign Language (*Deutsch als Fremdsprache*, DaF) took part in a structured exploration of the potential of WhatsApp as a medium for collaborative learning of German. They were all Bachelor students enrolled in an initial-level German course for native Spanish speakers at UNED. The authors selected WhatsApp to analyse the usefulness of mobile-based chatting for meaning negotiation in initial-level German writing because it enables users to exchange messages without having to pay for them. WhatsApp was also deemed as the most appropriately tool because it was handling ten billion messages per day as of August 2012 and it has been growing in the last 2/3 years at a record pace, so the fact was that many of the students were still using WhatsApp for private conversations. Another reason to opt for WhatsApp was that it works on all major smartphone models regardless of their operating systems – iPhone, Android phones, BlackBerry, Nokia and Windows Phone.

In order to increase students' interest in the WhatsApp task, the participation in the activity contributed to the final grade. The score only depended on the amount of messages and did not measure their linguistic correctness. Out of 450 students who were invited to participate in the free WhatsApp task, 85 students (58 female und 27 males) expressed interest. They were divided into five groups attending to following selection criteria:

- Students' topics of interest expressed in the pre-questionnaire,
- homogeneity in terms of the number of participants,
- heterogeneity in terms of language level, so each group was created with *real* beginners and also with students with a higher level of German (Common European

Framework of Reference for Languages A2/B1), so that they could help *real* beginners in meaning negotiation.

Those students who did not wish to participate were given alternative assignments to complete, and their data were not included in these study. Students were evaluated in that subject by a continuous assessment method that includes a final exam. Within the continuous assessment, the activity to improve written competence consists in the production of an essay about specific given topics, relating to the semantic field covered within the syllabus of the course. With the aim of facilitating that task, the authors proposed students to participate in the voluntary task on WhatsApp, so they could undertake a collaborative writing activity. Therefore, they had to complete an initial and final survey and to post a minimum of three WhatsApp messages a week. In order to give students a maximum of flexibility and opportunities for written interaction the role of the teacher began including greetings and then making a theme proposal for the written interventions. Then students began immediately to use the instant messaging platform and the teacher only proposed text corrections and new themes sometimes.

4. DATA ANALYSIS

4.1 Usage Patterns

For the purposes of this paper, the data offered have focused on one of the five groups, as an illustration of common usage patterns in written interaction via mobile devices. The duration of the project was six weeks half way through the first semester, as previously stated. It was planned this way in order to give students time to get familiar with the course and the group dynamics. It should be noted here that it took students a little while to warm up to this initiative, since it got a somehow cool response in the first week of the project, with a total of 60 interventions as shown in figure 1 below. However, this trend seems to have changed dramatically in the following two weeks, when the number of students' interventions almost trebled, reaching 166 in the second and third weeks. The remaining three weeks somehow stabilized this "instant-messaging frenzy", with 113 interventions in the fourth week, 127 in the fifth and 123 in the last week of the project.

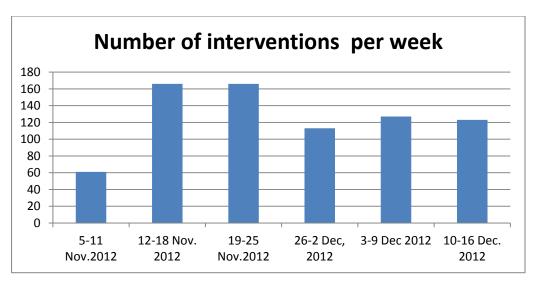


Figure 2. Number of interventions per week

Looking at the daily breakdown and putting the data together by day of the week, it becomes evident that this task was seen by students as a class-related one, to be done during weekdays and not at the weekends. As shown in figures 2 and 3, there is hardly any interaction on Saturday (only 2 messages) or Sunday (18 messages), whereas the preferred days seem to be Tuesday (with a total of 218 messages), Wednesday (161 messages) or Thursday (157 messages).

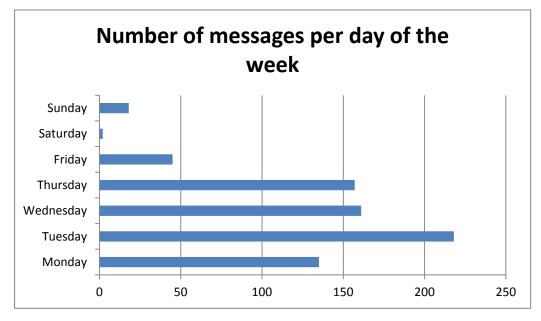


Figure 3. Number of messages per day of the week

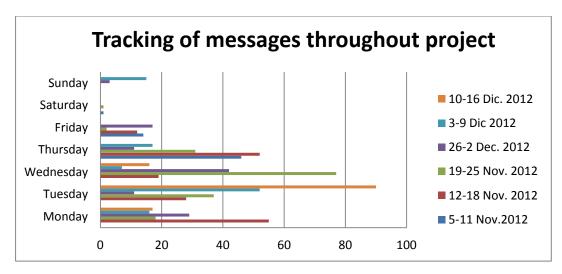


Figure 4. Tracking of messages throughout project

With regard to the time frame, four main distinctions were made: morning (8.00 to 13.00), afternoon (13.00 to 17.00), evening (17.00 to 22.00) and night time (22.00 to 8.00). Again, the data collected (see figure 4) show that students used this instant-messaging software for language learning mainly during what are commonly viewed as "working hours", which would correspond to first two time slots: morning and afternoon together amount to 419 messages (56,93% of the total), in contrast with the time slots that would be considered to be devoted to rest and leisure, evening and night time, which obtain a total of 317 messages (43,08%).

As for the different subjects that took part in this project, for the purposes of this paper, one of the average groups was selected to provide representative data. Students posted an average of 56 messages throughout the whole project. As can be seen in figure 5 below, that is roughly the number of messages posted by the teacher, who tried to act as facilitator, keeping the conversation fluid but letting the students take the initiative. Student 7 and student 8 follow the teacher's trend, with a total of 47 and 51 respectively, but the interventions of student 2, 3, 4, 5, 9, 11 and 12 are well below average. It can be said that half of the students showed a low response rate, but there were three participants who took to instant messaging in German with eagerness: student 10 posted 100 messages, student 1 posted 125 messages and student 6 posted a staggering total of 239 messages.

With the aim of understanding usage patterns in the participants, the authors have undertaken a detailed analysis student by student. Again, the pattern is clear: week days were the chosen ones to participate in this activity. There were only three students who sent messages during the weekend: student 1, student 7 and student 12, and even those sent a remarkably low amount of messages those final days of the week, compared to the rest of the week days (see table 1 below).

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Teacher	5	17	6	14	4	0	6	52
Student 1	16	27	30	35	10	2	5	125
Student 2	12	2	9	13	0	0	0	36
Student 3	0	2	0	2	1	0	0	5
Student 4	4	2	10	4	0	0	0	20
Student 5	0	0	0	1	0	0	0	1
Student 6	46	77	60	39	17	0	0	239
Student 7	2	26	3	10	1	0	5	47
Student 8	11	22	3	14	1	0	0	51
Student 9	2	6	2	8	0	0	1	19
Student 10	33	29	20	9	9	0	0	100
Student 11	0	0	1	1	0	0	0	2
Student 12	4	8	17	7	2	0	1	39

Table 1. Number of messages by student and weekday

When looking at the time slots individually, however, there does not seem to be a consistent pattern, in contrast with the analysis of the group as a whole: student 1 seems to favor the morning slot but also sends messages at other times, student 2 concentrates his/her messages within "working hours" (08-13.00 and 13.00-17.00), student 6 sends messages enthusiastically day and night, student 7 is not so enthusiastic but also sends messages more or less regularly, student 8 avoids the slot 13.00-17.00, student 10 shows a slight preference for the morning and student 12 a slight preference for the evening. The participation of students 3, 4, 5, 9 and 11 is too low to enable the inference of a pattern.

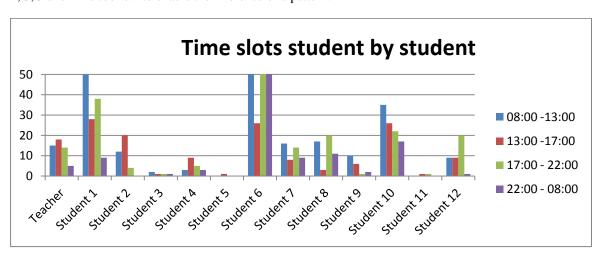


Figure 5. Time slots student by student

4.2 Discourse Functions and Meaning Negotiation in the WhatsApp Conversations

To achieve the aims relating the qualitative approach, the authors investigated discourse functions and content of contributions in the written conversations generated via WhatsApp to analyse how students negotiate to make meaning.

With negotiation for meaning, we mean "a process in which a listener requests message clarification and confirmation and a speaker follows up these requests, often through repeating, elaboration, or simplifying the original message" (Pica, 1994, p. 497) On the other hand, according to Hampel (2013) these discourse functions are central in language learning "...where negotiation of meaning, that is, the modification of input (by using, for example, simple grammar and vocabulary) and of interaction (by, for example, requesting clarification), has been shown to contribute to second language acquisition)". According to the Interaction Hypothesis (Gass & Mackey, 2007), the corrective feedback resulting from negotiation of meaning is very important for Second Language Acquisition (henceforth SLA). Researchers state that negotiation of meaning is triggered by a breakdown in communication that leads to a modified utterance (Bower & Kawaguchi, 2011), so, in order to be understood, the output has to be modified.

Analysing the main discourse functions of the text chats, the most relevant that the authors could identify according to Hampel's and Sotillo's classification across the five groups were the following: social interaction (greetings and farewells), on-task negotiating meaning, and off-task conversations. The qualitative research has explored these areas by investigating how learners negotiate meanings providing partners with corrective feedback for their language production. According to Bower & Kawaguchi (2011) implicit corrective feedback can take the form of recasts and negotiation strategies. Oliver (1995) identifies four types of implicit corrective feedback that can be grouped together under the category of negotiation strategies: clarification requests (learner are encouraged to modify their output), repetition (the interlocutor repeats a learner's error), confirmation (the interlocutor checks to confirm its understanding of a learner's output), and comprehension checks (to check the interlocutors' understanding).

The next section analyses the interactions that helped participants to negotiate meaning according to the above mentioned feedback classification within the three main discourse functions identified.

4.2.1 Negotiation Strategies in Social Interaction

Let us first examine some examples of interactions that helped participants to negotiate meaning in social conversations. Extract 1 shows Jaime using the text chat encouraging his interlocutors to rephrase their outputs while they are talking about where they live.² According to Gass & Varonis' model (1985), the negotiation of meaning begins when the hearer (in our example Jaime), encounters an incomprehensible utterance, a communication problem occurs and he indicates it with a clarification request (*Ich verstehe dich nicht*), what is a form of implicit feedback or negotiation strategy.

² The German extracts have been translated purposely literally, trying to maintain student's errors. Errors in both languages were marked with an asterisk (*).

NEW FORMS OF NEGOTIATING MEANING ON THE MOVE: THE USE OF MOBILE-BASED CHATTING FOR FOREIGN LANGUAGE DISTANCE LEARNING

Extract 1: Social interaction - type 1 (clarification request)

Elena M.: Ja. Zurzeit ist el Pardo zu geschlossen...

Yes, nowadays El Pardo is closed...

Jaime C.: Ich verstehe Dich nicht.

I can't understand you.

Elena M.: Ich *warte in el Pardo. *Eine groß Teile war geschlossen...

I *wait in El Pardo. A big part of it was closed ...

Extract 2 illustrates an example of another type of implicit feedback where a student (Carolina) indicates the correct use of a preposition by repeating the sentence using the correct one. As we can see in that example, that type of feedback generates interactions that not only contribute to clarify meanings and so to co-construct knowledge, but also trespasses on the socio-affective level: supporting one another and building relationships in the group. As this extract shows, the teacher (here: *UNED-Alemán*) also used the chat to give written feedback.

Extract 2: Social interaction - type 2 (repetition)

Elena M.: Ich bin in der Arbeit...

I'm *in work

Octavio S.: Ich bin auch heute *ins Büro

Today I'm also *in the office.

Carolina F.: Elena: ich bin bei der Arbeit

Elena: I'm at work.

Elena M.: Danke, Carolina. Ich bin bei der Arbeit.

Thanks, Carolina. I'm at work.

Carolina F.: Ich korrigiere nur um zu helfen ⊕ aber ich mache selber Fehler

I correct only to help you, but I also make mistakes.

4.2.2 On-task Negotiating Meaning

The following extracts illustrate examples of negotiating meanings related to the task. As shown in extract 3, the topic of the chat conversation was Christmas meals. The excerpt shows Pilar von W. checking whether her interlocutors have understood her, through a direct question. The smartphone self-checker transforms the German word *Strudel* into the Spanish *trueno* (thunder), which produces a communication breakdown:

Extract 3: On-task negotiating meaning - type 3 (confirmation)

Silvia R.: Verstehe nicht⊗

I don't understand.

Pilar von W.: *Entschuldigen ich habe *ein Irrtum gemacht, ich meinte

Strudel. Versteht ihr?

Silvia R.: Apfelstrudel??

Applepie?

Silvia R.: Ja, * jetzt ich verstehe.

Ok, now I can understand.

Pilar von W.: Entschuldigung.

Excuse me.

Extract 4 shows how a student, Silvia, uses the repetition modality repeating Pilar's erroneous output to negotiate meaning. Immediately after Pilar indicates Silvia that her output is wrong (explicit corrective feedback). Thus, in this brief extract example, we can observe both corrective feedback types: the implicit and the explicit one:

Extract 4: On-task negotiating meaning - type 2 (repetition)

Adelina C.: Vorbereitung Weihnachten?

Preparing Christmas?

Pilar von W.: Ja, doch, ich habe Feiertag und ich backe *Butterplatze für

Weihnachten.

Yes, I have finished with my working day and I'm baking

Christmas cookies.

Silvia R.: **Du backst *Butterplatze?**

You are baking *Butterplatze?

Pilar von W.: Weihnachtskeksen, also ich meinte Butterplätzchen.

Christmas cookies, I mean butter biscuits.

4.2.3 Negotiation Strategies in off-task Conversations

It was quite common for students to start off-task conversations throughout this project. The following extracts show examples of conversations where meaning negotiation occurred. To begin with, extract 5 shows a student (Carmen) using the chat to address her interlocutors directly with a question about syntax:

Extract 5: Off-task negotiating meaning - type 1 (clarification request)

Susanne I.: Hallo Emilio! Toll wieviel du geschrieben hast, nur zwei kleine

Fehler: ihren Fabriken und heißt Schwäbisch Hall??

Hey, Emilio! Good that you wrote so much, just two insignificant

corrections: [...]

Carmen P.: Hallo Suse! Ich verstehe nicht warum benutzt du die inversion

hier "Toll wieviel du geschrieben hast"!

Hey Suse! I cannot understand why you use here the inversion:[...]

In the next extract the corrective feedback appears again in form of repetition, Sandra repeats Sergio's erroneous output and finally Sergio contributes to the conversation again using the correct form and modifying his error:

Extract 6: Off-task negotiating meaning - type 2 (repetition)

Sergio A.: Ich bin auch Lehrerin aber von Musik für Kinder.

I'm also a teacher (female), but I teach music to children.

Gizane S: Oooooohhh. Ich spiele die Gitarre.

Oooh! I play the guitar.

Gizane S: Sergio, du bist Lehrerin??. Ich bin Lehrerin aber ich bin Frau!

Sergio, you are a teacher (female)? I'm a teacher (female), but

I'm a woman.

All these extracts illustrate how students succeeded in negotiating meanings using the WhatsApp tool. We can also see how the written chat assumes some of the functions that

NEW FORMS OF NEGOTIATING MEANING ON THE MOVE: THE USE OF MOBILE-BASED CHATTING FOR FOREIGN LANGUAGE DISTANCE LEARNING

paralinguistic cues or body language have in face-to-face contexts: students succeeded also interacting in the socio-affective level. The examples show that the students use the written chat to contribute to the language learning activities (co-constructing knowledge), but also supporting one another and building relationships in the group, as shown in the next extract:

Extract 7: Students interaction at the socio-affective level

Guadalupe P.: Diese Sprache hat sehr lange Worte !!! ⊗

This language has very long words !!! ⊗

Guadalupe P.: Keine Panik, Silvia?

Don't panic, Silvia.

Silvia R.: Ja, keine Panik Lupe.

Right, Don't panic, Lupe..

Silvia R.: Alle den Tag ein bisschen.

A little bit everyday.

Silvia R.: Und in einem Monat sehen wir.

And let us see in one month.

These extracts illustrate some trend towards group solidarity. Several linguistic choices appear through the chats aimed at reducing social distance and emphasizing group membership.

4.2.4 Language Use

The qualitative observation of the chats throughout the project shows an overwhelming use of German from start to finish. Students are determined to write in German, despite their very limited knowledge. The language used shows a mix of features drawn from prototypically spoken and prototypically written media; however, the trend is towards a more informal, "spoken" style of writing. This is especially obvious at the paralinguistic/graphic level, where additional means have been used to represent effects that are possible in face-to-face interaction but not in writing.

Extract 8: Linguistic features - Orthography

The absence of capitalization (even with names and after full stop), is the most recurring feature concerning orthography, as shown in the following extract:

Ann Ch.: Ich muss meiner **tocher** helfen. *guten **abend.**I have to help my daughter. *good evening.

Extract 9: Linguistic features – Vocabulary

As for the type of lexicon employed, the use of interjections is very remarkable, even though students encouraged using a formal register. The next extract shows also how students combine sometimes German and Spanish to be understood:

Pilar von W.: helfen??

help you?

Guadalupe P.: Möchtest??

"Möchtest"

Guadalupe P.: Signifikat?

Meaning?

Guadalupe P.: ??

 $Pilar\ von\ W.: = quieres$

= you want

Pilar von W.: Ja, es ist sehr schwer

Right, it is very difficult.

Extract 10: Linguistic features – Paralinguistics and Graphics

In the chats we could find mixed patterns which combine spaced letters, multiple letters and alternative markers for emphasis, capitalization ("shouting"), little or excessive punctuation and emoticons.

Elena M.: Heute *ich koche Lachs zum Abendessen.

Today I'm cooking salmon for dinner.

Elena M.: *Grillen Lachs.

Grilled salmon.

Héctor N.: Mmmm, lecker ூ

Mmmm, tasty 🕲

Elena M.: ich hoffe **doch?????**

I hope, **don't I????**

Gizane S: Heute KOCHE ICH !!!!

Today I'M COOKING³!!!!

Elena M.: Danke!! Danke Gizzi @

Extract 11: Linguistic features – Discourse and Text

Students used interaction features (e.g. questions) very frequently and reproduced the most extended WhatsApp language pattern: short consecutive messages sent by the same interlocutor. Like in oral conversations, the student tries to keep the interlocutor's attention sending strings of short messages:

Laura M.: Was studierst du?

What are you studying?

Sandra Ch.: Wer, ich?

Who? Me?

Sandra Ch.: Ich studiere in Spanische Philologie UNED.

I'm studying Spanish Language Studies at UNED.

Sandra Ch.: Ich studiere in der Amtssprache Schule Deutsch????

I'm studying German at the bussiness schoool.

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³ Here Gizane tries to emphasize Elena's error with capitalization.

5. DISCUSSION AND CONCLUSIONS

This paper has presented an analysis of the results of a research project involving social interaction via WhatsApp, used by Spanish students of German from a (quasi-)beginner's level university course. After explaining the context and parameters of this learning experience and the methodology followed, an analysis of the results was undertaken in terms of student response, attitude and participation and also of the meaning negotiation strategies and language use. The high participation level demonstrated the degree of motivation of students to use this mobile technology for their language studies. The concentration of messages on working days and at the typical working hours within the day showed that while students were highly motivated, they were fully aware of the educational nature of the messaging activity. As in all working groups, there was a slight initial dropout of students, while the participation of the majority was rather similar and sufficient to provide critical mass to undertake an optional and open learning interactive activity among a small number of individuals.

The experience undertaken shows that using WhatsApp for foreign language learning is an effective strategy for a number of reasons. Firstly, students did noticeably improve their meaning negotiating skills and, despite their many fundamental linguistic errors, were able to understand and make themselves understood at all times. Secondly, they also reduced to some extent the amount of language mistakes (lexical, morphological, and syntactic) in an example-based rather than prescriptive manner (error correction was reduced to a minimum). Thirdly, the students declared and demonstrated that they had found this (optional) activity to be highly enjoyable and specifically asked the teacher for similar initiatives in the forthcoming courses. Using WhatsApp for teaching a foreign language made the teacher change her usual roles as corrector and feedback provider into more challenging ones where she had to skillfully drive students toward certain topics of discussion and types of discourse, and provide native-like language models, in an indirect way. Also, the usual error correction and feedback were substituted by more subtle forms of eliciting student awareness, which were generally grasped by the student in question.

The authors claim that the evidence provided by this piece of research adds up to the successful undertaking of a number of related experiences, proving that it is also effective with old students and in a distance-learning higher education context. We believe that the WhatsApp technology is particularly adequate for beginning learners of any foreign language, given the direct correspondence between the style, length and complexity of the messages typically sent in this technology and the style, length and complexity of the messages they are able to produce themselves. It will be interesting to explore how generalizable and scalable this is in future work.

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NEW FORMS OF NEGOTIATING MEANING ON THE MOVE: THE USE OF MOBILE-BASED CHATTING FOR FOREIGN LANGUAGE DISTANCE LEARNING

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