

The influence of mobile instant messaging in language education: perceptions of current and future teachers

Abstract

The globalisation of mobile instant messaging (MIM) in applications like WhatsApp encourages the use of a non-standard linguistic register. The purpose of this study is to determine and assess the perception of school teachers and teaching students on this issue in relation to the language education. This descriptive transectional study has been carried out with a non-probabilistic sample of 652 people, of whom 321 are active teachers at public schools (Infant, Elementary and Secondary School) in the province of Málaga (Spain), and 331 are students of the four courses in Primary Education at the University of Málaga. The data were collected through an own questionnaire, validated through a pilot test of the instrument, which yielded both qualitative and quantitative information. The results show no significant differences between the perceptions of teachers and students regarding the influence of MIM on the increasingly less normative linguistic uses of school-age children. Finally, the conclusion discusses the benefits and difficulties of the use of this kind of app in the classroom. Both groups agree on the need to work with this issue outside of school and to use instant messaging as a resource to improve language education.

Keywords

Mobile instant messaging (MIM), mobile communication, WhatsApp, virtual environments, digital writing, language education, teacher training, normative grammar.

Introduction

The ease of access to mobile devices and the wide range of mobile instant messaging (MIM) applications are changing social interactions and interpersonal communication (Comas-Quinn, De-los-Arcos, & Mardomingo, 2012). In the educational field, several authors have stated that instant messaging facilitates mobile learning through real, synchronous and ubiquitous interaction, with the possibility of evaluating one's own actions, cooperating to solve learning problems and receiving feedback from the interlocutors (Andújar-Vaca & Cruz-Martínez, 2017; Bouhnik & Deshen, 2014; So, 2016). Therefore, it is essential for teachers to consider their pedagogical use in the classroom (Chiu & Churchill, 2016; Cremades, Maqueda-Cuenca, & Onieva, 2016; Krull & Duart, 2017; Qutián-Bernal, 2017).

One of the features that makes MIM an emerging medium with great educational potential is that it is the first technological tool used naturally on a daily basis by both students and teachers without the need for prior training. Other digital communication services have not had the same success in both groups. For example, email is more useful for teachers than for students, while Facebook groups are better suited to the interests of students than teachers (Bouhnik & Deshen, 2014).

There have been numerous studies of the written communication used in MIM. Most authors prefer the term “textism”, although it has also been called “ubiquitous digital writing” (Vázquez-Cano, Mengual-Andrés, & Roig-Vila, 2015), “ideophonematic writing” (Cassany, 2015) or an “electronic diaphase variety” (Berná & Pellicer, 2014). Its use and characteristics have been the subject of investigation in different languages: in Spanish (Calero-Vaquera, 2014; Cassany, 2015; Caurcel, Gómez, & Íñiguez, 2013; Gómez-Camacho & Gómez-del-Castillo, 2015; Vázquez-Cano et al., 2015); in French (Bernicot, Goumi, Bert-Erboul, & Volckaert-Legrier, 2014; Bouillaud, Chanquoy, & Gombert, 2007; Lanchantin, Simoës-Perlant, & Largy, 2014); and in

English (Crystal, 2008; Plester & Wood, 2009; Thurlow & Brown, 2003). Comparative studies have also been carried out—such as Panckhurst (2009) on French, Italian and Spanish—where the same patterns were observed as in monolinguals.

The main differences between the first forms of textism used in SMS messaging and the writing in more recent applications, such as WhatsApp, are less orthotypographic variation and a lessened occurrence of word shortening (Vázquez-Cano et al., 2015). These authors also highlight the suprasegmental enrichment of the written discourse by fixed and moving graphics (emojis and emoticons) and, above all, by the incorporation of image, video and sound as an accompaniment to the text. In short, current applications reinforce the phatic function of the communication, since they provoke greater satisfaction in users beyond mere textual interpretation (Yus, 2017). They also enhance a series of non-normative uses which Holgado-Lage and Recio-Diego (2013, p. 105) classify into phonetic, lexical and morphosyntactic deviations, since “the chat language is closer to spoken language than to prototypical written language, thus constituting a type of unplanned discourse”. This lack of planning entails what Gómez-del-Castillo (2017, p. 63) has called “dissonance with the educated standard of writing”.

However, research has increasingly shown the effectiveness of MIM for learning. In addition to its multiple advantages over other educational-oriented technologies, such as its low cost, efficiency, ease of access and the use of a natural language (Church & De-Oliveira, 2013), its positive influence on linguistic training has also been investigated. Bouhnik and Deshen (2014, p. 225) distinguish between “educational advantages”, such as the improvement of the communicative environment, and “academic advantages”, such as access to curricular contents and the possibility of continuing to learn outside school hours with activities proposed by the teachers. Andújar (2016) also points out that the use of instant messaging can contribute to students’ motivation and, consequently, their participation in the educational process, even if the teachers

are only a silent witness to the group's communicative exchanges. In a study by Martínez-Parejo (2016), the improvement of written competence with the use of WhatsApp in the teaching of foreign languages and in particular of linguistic structures as well as written comprehension and expression, was noted. Many empirical analyses have revealed the effectiveness of applications such as WhatsApp for improving vocabulary, both in the mother tongue and in foreign languages (Awada, 2016; Kee-Man, 2014; Lai, 2016; Morató-Payá, 2014). Oral competence can also be improved in comprehension, grammar, vocabulary, fluency and pronunciation, as Andújar-Vaca and Cruz-Martínez (2017) have demonstrated.

In accordance with this, current teachers should consider that their students are exposed to very different oral and writing discursive modalities. It is therefore not surprising that some of these professionals have considered in a critical manner how to incorporate this multimodality of technological mediation into the classrooms (Quitián-Bernal, 2017). However, Bouhnik and Deshen (2014) point out that there are challenges that must be faced when using instant messaging in educational centres: Teachers may feel uncomfortable with certain situations generated by their students, such as the transmission of irrelevant and meaningless information, or even messages harmful to the harmony of the group, or the use of language inappropriate to the proposed activities.

One of the greatest influences of MIM in language education is the orthographic standard. In this sense, Gómez-Camacho and Gómez-del-Castillo (2015) and Wood, Kemp, and Waldon (2014) distinguish between spelling errors and voluntary disorthographic writing. The first are not voluntary, instead being due to ignorance of the norm, while the second is due to the direct influence of the transmission medium of the text as a diverse register. Beyond the users' own linguistic awareness, among the pragmatic characteristics of ubiquitous digital writing are a neglect of orthographic and even grammatical norms (Calero-Vaquera, 2014; Cassany, 2015) as a result of language simplification in this communicative variety.

In view of the constant advancement of information and communication technologies, teachers have shown concern about the suitability of these tools and their adequate implementation lest educational processes not be adversely affected, but rather enhanced (Quitíán-Bernal, 2017).

Material and methods

Study

The present study may be classified as descriptive cross-sectional since, according to Hernández-Sampieri, Fernández-Collado, and Baptista-Lucio (2013), an initial approach to the subject under analysis was sought. In other words, this type of study allows for an evaluation of the perceptions of current and future teachers of the influence of mobile instant messaging in language education. This approach was consistent with the main objective of determining the opinions of non-university education teachers (Pre-school, Primary, Secondary and Further Education) and university teaching students (Primary Education programme) about non-normative linguistic uses in MIM, its influence on the development of linguistic communication skills and its introduction into the school.

Data compilation and analysis

The information was collected through a questionnaire prepared by the researchers themselves and validated through a pilot test, whose unpublished results were presented at the XVIII International Congress of the Spanish Language Didactics and Literature Society (Ciudad Real, 2017) under the title “Beliefs about the consequences of instant messaging in the language domain: a study with master’s students in Spain and Italy”. This pilot study was carried out with two groups of students ($n = 61$) in two different countries and programs: A master’s degree program in Compulsory Secondary and Further Education, Vocational Training and Language Teaching (University of

Málaga), and a master’s program in Language, Society and Communication (University of Bologna).

The final version of the questionnaire was divided into two areas, the first for personal data and the second on opinions about the study topic. The questionnaire comprised six questions with closed and open response alternatives, so that the participants could expand on the topics of interest. Thus, the analysis was conducted using a mixed quantitative-qualitative method. The quantitative data were analysed by means of descriptive and inferential statistics using Microsoft Excel 2016 and Statistical Package for the Social Sciences (SPSS) version 17 software, while for the qualitative data, the recommendations of Strauss and Corbin (1998) were followed, with the steps necessary to ensure that the information fulfils its main objective of explaining and clarifying the subject of study (i.e., categorisation; axial coding, discussion and presentation of the findings).

Sample description

A non-probabilistic sample was selected based on the criterion of accessibility to the subjects of two complementary profiles. The questionnaire was answered by 652 people: 331 students in the four Primary Education degree courses of the University of Málaga during the 2016/17 academic year, and 321 teachers from non-university public centres of the province of Málaga during the same academic year. The participants presented the characteristics shown in Table 1.

Table 1. Specific information about the participants.

	Gender					
Students	69.49% women 30.51% men	Academic year	24.77% first	47.73% second	15.41% third	12.08% fourth

Teachers	75.7% women 24.3% men	Educational level	1.25% Early Childhood Education	67.29% Primary Education	0.93% Primary and Secondary Education	30.53% Secondary and Further Education
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Analysis and results

The analysis of the results was structured around the four focus research areas for which information, whether qualitative or quantitative, was obtained from the six questions of the questionnaire as follows: The first research area is covered by Questions 1 and 2 of the questionnaire; the second, Question 3; the third, Question 4; and the fourth, Questions 5 and 6.

First research area: Do teachers and students believe that the use of mobile instant messaging can lead to the incorrect use of the language, especially in school-age children?

As shown in Section a of Table 2, both the students and the teachers' group expressed agreement that regular non-compliance with the linguistic norm in MIM leads to the incorrect use of the language in general. Regarding the comparative analysis of Questions 1 ("Do you think that regular non-compliance with the linguistic norm in mobile instant messaging influences leads to an incorrect use of the language in general?") and 2 ("Do you think that this influence could be greater in children or young people of school age than in adults?"), a close similarity in the responses was observed. That is, the respondents agreed that the use of instant messaging could lead to the incorrect use of the language, especially in school-age children (see Section b of Table 2).

Table 2. a) Frequency distribution and percentage of students, teachers and total regarding the influence of usual non-compliance of the linguistic norm in MIM on an incorrect use of the language in general; b) Comparison of answers to Questions 1 and 2 of the questionnaire.

a) INFLUENCE OF MIM ON INCORRECT EMPLOYMENT OF THE LANGUAGE		No	Yes	Total	
Students	Count	28	303	331	
	% row	8.5%	91.5%	100.0%	
Teachers	Count	29	289	318	
	% row	9.1%	90.9%	100.0%	
Total (row percentages by row total)	Count	57	592	649	
	% row	8.8%	91.2%	100.0%	
b) INFLUENCE ESPECIALLY IN CHILDREN			Question 2		Total
			No	Yes	
Question 1	No	Count	11	46	57
		% row	1.7%	7.1%	8.8%
	Yes	Count	30	560	590
		% row	4.6%	86.6%	91.2%
Total (row percentages of global total)		Count	41	606	647
		% row	6.3%	93.7%	100.0%

The qualitative data obtained from the questionnaire allowed for an enhanced explanation of the categorised opinions. Both teachers and students mostly agree that the frequent use of MIM results in the habit of writing in a non-normative manner, with omissions and shortening of words, since the speed and comfort of writing is particularly sought. In addition, they believe that there is a phenomenon of contagion whereby the mode of writing in the messenger is easily transferred to other writing. Other aspects raised are that the centered and informal character of the communication makes it less important for students to correct their writing and worsens their use of language in other contexts; that the fact of seeing a word poorly written has a negative influence; and that, in the absence of good training, these applications lead to incorrect writing in more formal settings. An explanation expressed by the teachers but not by the students is that this type of writing causes the use of a much smaller vocabulary, leading to the impoverishment of the language.

Second research area: Do teachers and students believe that the importance given to orthographic correction is decreasing due to the use of MIM?

As shown in Table 3, unlike the previous trend, the answers obtained of the groups differ; the opinion of the students being divided almost equally, while most of the teachers agreed that the importance given to orthographic correction is affected.

Table 3. Frequency distribution and percentage of students, teachers and total with respect to their opinions about MIM affecting the importance given to orthographic correction.

DECREASE OF THE SIGNIFICANCE OF ORTHOGRAPHIC CORRECTION CAUSED BY MIM		No	Yes	Total
Students	Count	180	147	327
	% row	55.0%	45.0%	100.0%
Teachers	Count	89	212	301
	% row	29.6%	70.4%	100.0%
Total (row percentages by row total)	Count	269	359	628
	% row	42.8%	57.2%	100.0%

Despite the difference of opinion between teachers and students in Table 3, the qualitative information indicates that both groups agree that the reduction in the importance given to orthographic correction is mainly due to custom and comfort. The language user gradually becomes less concerned with spelling corrections because they automate the distance from the norm and find it easier not to confront it.

Among those who do not believe that the importance given to orthographic correction is being affected, the majority opinion is that in formal settings the significance of correct spelling is still valued and teachers put more effort into their teaching. In addition, normative and non-normative use of the language is differentiated by context. Furthermore, the students in particular believe that the importance of spell checking is not diminishing because the MIM users know perfectly well when they are writing incorrectly but choose to do so in a particular context.

Third research area: In teachers’ and students’ opinion, can the non-normative linguistic phenomena of MIM influence the general use of language?

In addition to the items predominantly indicated by the teachers and the students (Table 4), the subjects of both groups indicated the occurrence of other non-normative linguistic phenomena: The excessive use of images (emojis) to the detriment of verbal expression; the omission of tildes; and the lack of coherence and textual cohesion.

Table 4. Frequency distribution and percentage of students, teachers and total, with respect to their opinions on the non-normative linguistic phenomena that MIM could prompt in the general use of the language.

NON-NORMATIVE LINGUISTIC PHENOMENA (The participants had the option to select more than one)	Students		Teachers		Total	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Normative errors with letters	276	84.7	271	89.7	547	87.1
Punctuation errors	265	81.5	238	78.8	503	80.2
Vocabulary reduction	234	72.0	228	75.5	462	73.7
Incorrect syntax	146	44.9	166	55.0	312	49,76
Lack of coherence	121	37.2	137	45.4	258	41.2

Fourth research area: Do teachers and students believe that it is possible and necessary to tackle the consequences of MIM in language education in the schools and even take advantage of its potential as a teaching resource?

Table 5 illustrates the degree of agreement on Question 5 of the questionnaire: “Do you think that something can or should be done in educational centres (inside or outside the classroom) to deal with the influence of the non-normative linguistic phenomena of mobile instant messaging on the general use of the language?” Likewise, most of the participants answered Question 6 affirmatively: “Do you think it is possible to use instant messaging (in applications such as WhatsApp) in the educational field as a didactic resource to improve learning in general?” (See

Table 6). Finally, Table 7 shows the consistency of the respondents' views regarding this issue. Most of them agreed that the influence of MIM on non-normative linguistic phenomena must be addressed in the educational centres, and that instant messaging could be used as a didactic resource to improve the learning experience.

Table 5. Frequency distribution and percentage of the students, teachers and total with respect to their opinions about whether the influence of MIM on non-normative linguistic phenomena must be addressed in educational centres.

ADDRESSED IN EDUCATIONAL CENTRES		No	Yes	Total
Students	Count	22	305	327
	% row	6.7%	93.3%	100.0%
Teachers	Count	32	250	282
	% row	11.3%	88.7%	100.0%
Total (percentage of row total)	Count	54	555	609
	% row	8.9%	91.1%	100.0%

Table 6. Frequency distribution and percentage of students, teachers and total with respect to their opinions about using MIM as a teaching resource to improve the learning experience.

USE OF MIM AS A DIDACTIC RESOURCE		No	Yes	Total
Students	Count	66	257	323
	% row	20.4%	79.6%	100.0%
Teachers	Count	84	187	271
	% row	31.0%	69.0%	100.0%
Total (percentage of row total)	Count	150	444	594
	% row	25.3%	74.7%	100.0%

Table 7. Comparison of answers to Questions 5 and 6 of the questionnaire (Tables 5 and 6).

ADDRESSED IN EDUCATIONAL CENTRES AND USE OF MIM AS A DIDACTIC RESOURCE			QUESTION 6		Total
			No	Yes	
QUESTION 5	No	Count	24	30	54
		% row	4.1%	5.2%	9.3%
	Yes	Count	121	405	526
		% row	20.9%	69.8%	90.7%
Total (percentage of global total)		Count	145	435	580
		% row	25.0%	75.0%	100.0%

The qualitative data reflect the fact that those who advocate addressing the consequences of instant messaging in language education in the school think that the best way to do so is to teach the

students to employ the language correctly in both colloquial and formal contexts, and to do so reflexively. In addition, to a greater extent than students, teachers consider digital writing on mobile devices through workshops or specific activities appropriate in the classroom.

Regarding the potential of MIM as a teaching resource, there are differences between the majority of the teaching staff and the students. The first group believes that different information and communication technologies (ICT) resources can be used to motivate the students and improve their learning experience, as long as they are used appropriately. Contrariwise, the second group proposes specific applications such as forums, debates or textual analysis for later revision of orthographic or grammatical errors. Both groups agree that this type of messaging facilitates communication among students, as well as between teachers and students or parents, and that it is useful for answering questions, sharing opinions and carrying out group work.

Finally, both teachers and students who answered Question 6 negatively agreed that they did not consider mobile instant messaging a necessary, useful or practical didactic resource. The majority of the students believed that it would not be appropriately used in the classroom and would result in a distraction more harmful than beneficial.

Discussion and conclusions

In the light of the results of the analysis, it can be concluded that active non-university education teachers as well as those who will carry out that same role in the future, perceive the use of MIM by school children as detrimental to their linguistic performance. The fact that young children acquire the habit of not respecting written norms in order to write faster and more comfortably—what Wood et al. (2014, p. 427) called “lazy language use”—can entail a contagion effect in more formal writings. Both teachers and university students believe that without a good standard

linguistic education, instant messaging can have a negative influence on the development of communicative competence.

Teachers who work daily in the classroom are more pessimistic since they perceive ubiquitous digital writing as leading to the impoverishment of the language used by their students. This conclusion is consistent with those of Gómez-Camacho, Núñez-Román, and Perera-Rodríguez (2016) in their study of the perceptions of Italian university students regarding the language used in the WhatsApp application and its possible negative influence on the orthography of secondary education students. These researchers demonstrated that Italian university students are more lenient and understanding of their own use of WhatsApp than with that of younger students.

However, the perception of the participants in the present study contrasts with the findings of the most recent studies, which did not establish a negative impact of MIM on formal writing. The results of the three pioneering studies of Plester and Wood (2009) involving English preadolescent school children (10–12 years old) led these authors to conclude that the ability to create and use non-normative forms in instant messaging demonstrates greater linguistic and metalinguistic skills. Therefore, textual experimentation does not contribute to the decline of the language skills of school-age users. Bernicot et al. (2014) reached similar conclusions in a study of 4524 text messages of French school children aged 11 and 12, as did Gómez-Camacho and Gómez-del-Castillo (2015) after studying university students of Early Childhood Education to determine the relationship between textisms and orthographic errors. Gómez-Camacho et al. (2016) corroborate this when distinguishing between non-normative textisms with involuntary errors and those intentionally written for various reasons; the former errors are also made by their users in more formal contexts, which demonstrates the limited competence of their authors, while the use of intentional textisms is restricted to writing on mobile devices.

With regard to the social prestige provided by correct spelling, the active teaching staff showed a more pessimistic view than did the university students. The teaching students did not clearly perceive a progressive decrease in this prestige, unlike the non-university education teachers. These findings are consistent with the increasing distance between the spontaneous use of MIM writing and the prescriptions of the Royal Spanish Academy confirmed by Giraldo-Giraldo, Ríos-Londoño, and Cardona-Cifuentes (2018).

The results of the present study show that orthographic and punctuation normative errors are characteristic linguistic phenomena of instant messaging that can be transferred more widely to the use of language in any context. Other phenomena, such as the reduction of vocabulary, incorrect syntax, lack of coherence or the impoverishment of verbal expressiveness due to the excessive use of emojis, are also perceived.

The active teachers and teaching students believe that the influence of the increasing use of MIM by the students must be addressed in the school. Both groups believe that specific training in normative use of the language in informal contexts should be considered in school programs. On the other hand, and although it may seem contradictory to the above, they are convinced that both messaging applications on mobile devices and digital writing can be appropriate didactic resources provided that specific activities are established for that purpose.

The two groups clearly support the use of MIM in the school setting for the improvement of the learning experience, and they show similarities and slight differences regarding how it is to be implemented. The similarities concern the convenience of using instant messaging to improve the educational communication between students and teachers, as with activities to resolve doubts, express opinions or share work. The differences lie in the fact that active teachers are concerned about the general good use of ICT, but believe that they can be a motivating element, something also found in the study by Andújar (2016), while university teaching students place more emphasis

on the collaborative use of mobile instant messaging through forums, debates or textual analysis. This trend can be explained by the conclusions of Cabero-Almenara and Marín-Díaz (2014) about social networks. These authors confirm that university students show a strong predisposition to work collaboratively in groups, as well as a great interest in the technological tools that enhance group learning.

Those who do not support the use of MIM in the school environment argue that it is not essential for achieving curricular objectives, and that, as it is a technology that is mainly employed in non-formal contexts and during leisure time, it can distract students and hinder the learning process. Conversely, the study by Pérez-Rodríguez and Delgado-Ponce (2018) provides cogent reasons for the use of MIM in the classroom, particularly to improve the communicative competence of the students: The necessary link between education and the reality in which the students themselves live. These researchers also highlight the relevance of continuing to establish synergies between teaching activities and instant messaging, as well as with the learning that takes place outside the school context through the same applications or devices.

One of the difficulties expressed by teachers in the analysis by Bouhnik and Deshen (2014) is the extra time that must be dedicated to preparing and following the activities carried out through instant messaging. On the other hand, this same study presents situations in which teachers found an acceptable balance between effort and results. For instance, in many cases, the simple fact of the teachers being present in the WhatsApp groups, although without participating, contributes to the students being more respectful in the language they used, with the mutual treatment and with the learning objectives.

The qualitative information obtained barely mentions the need for self-training in the use of new educational technologies, perhaps because the participants themselves usually handle MIM, especially through the WhatsApp application. In contrast, other studies of new technologies in

education do reflect the importance of teacher training. In their research about the technological footprint of the teacher in training, Sonlleva-Velasco, Torrego-González, and Martínez-Scott (2017) demonstrate the relevance of including reflection and critical analysis on informal uses of mobile technologies as part of their initial education. Pereira-da-Silva and De-Burgos-Rocha (2017), who also advocate the use of applications such as WhatsApp in the classroom, support the view that public education policies should contemplate the initial and continuous training of teachers in good management of ICTs.

It is therefore clear that the different applications of instant messaging are perceived by the current and future teachers as a tool with great didactic potential. This contrasts with the limited research on its application and results, as Andújar (2016, p. 74) objects: “The number of studies related to MIM in education is extremely scarce and the tremendous potential of this tool has not been taken into consideration”. Bouhnik and Deshen (2014) also advocate the implementation of qualitative educational research whose theoretical and practical conclusions can contribute to the integration of MIM into the educational programme and action. It is believed that this research will hereby contribute to and complement the educational panorama, since there have been no specific studies to present and compare the perceptions of non-university education teachers and university students of Primary Education in this field, in addition to inquiring about educational practice. It is understood that the motivation, experience and perception of teachers regarding the changes demanded by the current education are just as important as or even more important than educational policies and planning. Therefore, this study could be improved through samples of a larger size and variety (for example, including students pursuing a Master’s in Secondary and Further Education, or from different autonomous communities or countries), as well as with other qualitative methodological instruments such as discussion groups or in-depth interviews. A variety

of didactic practices with MIM could also be analysed through case studies or with participatory action research techniques.

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