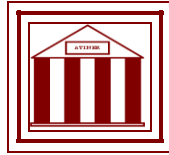


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**Computer-Mediated Communication
as Input for Polish Teenage Learners
of English**

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Computer-Mediated Communication as Input for Polish Teenage Learners of English

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Abstract

The research reported in this article aimed to evaluate the relevance of input obtained through out-of-class involvement in computer-mediated communication (CMC) by Polish teenage learners of English for the development of their competence in English. The study participants were 209 Polish high school learners who, for the purpose of data analysis, were divided into two groups: heavy Internet users (N=145) and moderate Internet users (N=64). The questionnaire findings revealed high intensity of out-of-class Internet use and contact with English through CMC. The test results pointed to numerous beneficial effects which may be attributed to CMC engagement: higher comprehension rates of typical CMC forms declared by heavy Internet users, their greater sensitivity and openness to non-standard linguistic forms frequently found in CMC, and the knowledge or recognition of CMC abbreviations. Although the data allow no generalizations concerning the influence of CMC on second language acquisition, they provide an interesting insight into the relevance of CMC input for teenage learners of English as a foreign language.

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1.1. Introduction

Much recent research on computer-mediated communication (CMC) within the area of foreign language learning and teaching has suggested that it offers multiple benefits for foreign language learners (Blake, 2011; Chapelle, 2007; Levy and Stockwell, 2006; Macaro, Handley & Walter, 2012). Its main advantages derive from the inherently interactive nature of CMC. Through receiving and processing the relevant, often personalized input, L2 learners have ample opportunities to practice their interaction skills, such as the negotiation of meaning (Blake, 2011; Youngs, Ducate and Arnold, 2011), but also attend to the linguistic aspects in the input (Salaberry, 2000; Fiori, 2005; Sauro, 2009), which may contribute to the development of L2 learners' grammatical and lexical competence. Moreover, CMC stimulates learners' output, providing opportunities for increased learner participation in communication, and generally fosters learner-directed learning (Kern, 2006).

Engagement in CMC, and in using modern digital technology in general, is particularly intensive among young people nowadays. Prensky (2001) refers to them as 'digital natives', and Tapscott (2009) calls them 'the Net Generation', or the 'Net Gen', because digital technology has always been part of their environment. Therefore, it may be concluded that due to the intensity of their CMC use, adolescent foreign language learners may be particularly open to the benefits that this kind of input presents for second language acquisition processes.

This article aims to investigate whether and how language input generated through out-of-class engagement in CMC influences the competence of teenage learners of English as a foreign language. Before the study findings are presented, however, the role of CMC in the lives of contemporary young people will be explained, followed by a brief overview of published research conducted in order to explore the benefits of CMC for L2 learners' development of morphosyntactic competence.

1.2. Computer-mediated communication in the lives of contemporary teenagers

Recent research highlights the intensity of contemporary adolescents' engagement in computer-mediated communication (CMC), their preference for computer-channeled interaction over face-to-face interaction, their very well developed skills in using new technology, and the 'generational divide' which explains the huge differences between young people's and the older generations' attitudes toward technology (Greenhow & Robelia, 2009: 1130).

The high involvement of contemporary teenagers with CMC is stressed by Tagliamonte and Denis (2008), according to whom, teenagers particularly willingly participate in instant messaging (IM), which is 'a one-to-one synchronous form of computer-mediated communication' (Baron, 2004: 13); at the beginning of the 21st century, 80% of Canadian and 74% of US teenagers

had used IM. According to Lenhart et al. (2010), 73% used social networking sites, which leads to a conclusion that ‘the internet is a central and indispensable element in the lives of American teens and young adults’ (Lenhart et al., 2010: 5). Very high rates of internet use are also reported by Polish research: over 90% Polish teenagers aged 14-18 use IM (Mnichowski, 2010).

Herring (2007: 71), referring to today’s teenagers born from mid-1980s to 1990s, as the ‘Internet Generation’, stresses that their behavior is characterized by heavy reliance of computer technology in all areas of life, social, entertainment-related, and academic. This, in turn, leads to a growing ‘discrepancy between adult perspectives on new media and youth experiences’ (Herring, 2007: 72). Tapscott (2009: 2) calls today’s teenagers and young adults the ‘Net Generation’ as they are a generation which is ‘the first to be “growing up digital”’. Similarly, Palfrey and Gasser (2008) refer to the first generation that was born in a digitalized world as ‘Digital Natives’ and assert that (2008: 7) ‘[m]ajor aspects of their lives – social interactions, friendships, civic activities – are mediated by digital technologies. And they’ve never known any other way of life.’ In contrast, they call older generations ‘Digital Immigrants’ or ‘Digital Settlers’, highlighting the fact that although they may use digital technologies for many purposes, they were not born in the digital era and they still rely heavily on analog forms of human interaction, and while the changes that digital technology has brought is ‘second nature’ to Digital Natives, they will always be ‘learned behavior’ to Digital Immigrants.

Tapscott (2009: 9) describes typical behavior of the Net Generation: they text their friends all the time on their mobile phones, they surf the Internet, upload pictures, ‘they seem to be on Facebook every chance they get’, while ‘instant messaging or Skype is always running in the background’; generally, most of the time, they are busy collaborating through the Internet. Their behavior has had an influence on how young people nowadays process information (Tapscott, 2009; Prensky, 2001; Baron, 2008) and what they expect from a learning situation. They engage in multitasking, want to get information very quickly, access information in a random manner, and display strong preference for hands-on activity (Weigel, Straughn & Gardner, 2010; Ducate & Arnold, 2011). Similarly, Kuure (2011: 35-36) makes the point that engagement in CMC has a great impact on ‘the literacy worlds of school children’, which have become more multimodal, interactive, and are characterized by ‘polifocality’ in that they involve simultaneous engagement in several actions. In terms of foreign language learning, this kind of behavior influences what kind of linguistic input reaches teenage learners through social media and how this input is processed.

An interesting point is stressed by Leppänen et al. (2009: 1080), who found out that new technologies create possibilities for young people to transcend their local identities and look for what is common to their generation in the increasingly multicultural world: ‘[n]ational identity and language may have less significance here than shared interests, values, and ways of life’. They claim that young people’s skillful, sophisticated new media uses

contribute to a creation of global cultural translocal connections among Internet users, which influence their identity and a sense of belonging.

Finally, it needs to be emphasized here that the language of the new media, especially that used by adolescents in CMC settings, has aroused controversy among linguists and educators (Crystal, 2006; Thurlow, 2006; Baron, 2003, 2004, 2008; McNeill, 2008). Tagliamonte and Denis (2008) analyzed the linguistic features of IM, and provided examples of IM exchanges among American teenagers, such as the following one, conducted by two 17-year-old girls:

*when i drink tea
ew u do!?
hahahha
yes b/c it tastes good
with milk tea
so it's sugary
actually i drink tea with chocolate powder
it's the best thing ever
i'll try it next time...
YOU SHOULD TRY IT (Tagliamonte & Denis, 2008: 4).*

Tagliamonte and Denis (2008: 27) evaluate this kind of language as accommodating to a given register, which is typical of language used by teenagers, and very similar to their spoken language. They conclude that ‘the character and nature of IM (...) reveals fluid mastery of the sociolinguistic resources in [young people’s] speech community’.

1.3. The effects of CMC on foreign language acquisition

CMC, which offers valuable opportunities for foreign language learners to pursue social interactions in the target language and, in principle, leaves considerable freedom and self-direction to learners, seems to fit within the learner-centered trend in foreign language instruction (Blake, 2011: 25). Moreover, Ahern (2008: 296) notes that presenting learners with authentic, naturalistic language experience, CMC may be intrinsically motivating, involving and cognitively engaging for them. Through engaging in CMC in the L2, learners primarily attend to the meaning of the exchanges, at the same time practicing their interaction skills, such as the negotiation of meaning; moreover, because most of the CMC input is in the written form and the meaningfulness of the exchanges makes its linguistic form salient, learners may be motivated to focus on the grammatical and lexical form of the messages (Kern, 2006; Chapelle, 2007; Youngs, Ducate & Arnold, 2011).

Thorne (2008: 420) summarizes the potential benefits of CMC as stimulating L2 development ‘through textually mediated, generally peer-focused communication’, stating that it provides opportunities for the

expression of ideas and contributes to increased learner participation in L2 interaction. A considerable number of studies have investigated the links between CMC and the development of learners' interaction skills. For example, Yanguas (2010) explored the nature of negotiation of meaning experienced in synchronous oral CMC tasks (through Skype) by a group of L2 Spanish learners at intermediate level. The patterns of negotiation of meaning over unknown vocabulary turned out to be very similar to those recorded in the face-to-face interaction group; the patterns, however, differed from those in written CMC contexts. The researcher concludes, therefore, that the implementation of both the oral and the written CMC modes could contribute more fully to learners' interaction skills development.

A considerable number of empirical investigations have been carried out within the vast domain of Computer-Assisted Language Learning (CALL), including CMC (for a comprehensive review of current studies, see Macaro, Handley & Walter, 2012). Blake (2011) notes that recent research on the effects of CMC on foreign language learning falls within either the interactionist perspective (which investigates the role of CMC in enhancing interaction in L2, and, as a result, fostering a focus on the linguistic form as well) or the sociocultural one (which mainly examines the impact of CMC on the development of intercultural competence of L2 learners).

The effects of interactional modifications found in computer-mediated communication on the development of L2 learners' grammatical and lexical competence has been the focus of other empirical enquiries. For example, Salaberry (2000) investigated the development of a morphological feature (past-tense endings) in L2 Spanish learners under three conditions: a controlled grammar task, face-to-face interaction and electronic interaction. While all of these contexts stimulated the target grammatical structure use, certain conclusions were formulated regarding the CMC situation. First of all, initial changes in the development of the structure were most evident in CMC, probably because of the written form and the immediate functional demands of CMC; moreover, positive effects of interlocutor scaffolding were observed to an equal extent in CMC and face-to-face interactions. Fiori (2005) investigated the effects of consciousness raising in CMC in the development of grammatical forms in L2 Spanish learners. Higher levels of acquisition were found in the group which focused on both form and meaning than in the meaning-oriented group. Therefore, the presence of the consciousness raising task in CMC contributed to enhanced grammatical awareness as well as to more peer- and self-correction. Sauro (2009) investigated the effects of two types of corrective feedback (recast and metalinguistic correction) on L2 English learners' development of a grammatical structure (the zero article for abstract uncountable nouns) through CMC. Both kinds of feedback appeared to be helpful, with metalinguistic feedback contributing more to the acquisition of the target structure. The researcher concludes that written CMC provides learners with increased opportunities to notice target language forms and enough time to process the information. Corrective feedback, then, due to the interactive nature of CMC exchanges, may be more beneficial than in the case

of face-to-face interactions. In another study, Sauro and Smith (2010) noticed beneficial effects of increased planning time in online exchanges on structural and lexical diversity in L2 use. Other studies concentrated on learners' lexical knowledge. For example, de la Fuente (2003) compared the effects of face-to-face and online interaction on L2 Spanish vocabulary development, concluding that both environments were equally effective for the acquisition and retention of lexical items, although the face-to-face environments was more conducive to learning the oral production of words.

The studies referred to above give a useful insight into the potential of L2 learners' involvement in CMC for the development of their competence in L2. In the following section, the findings of research conducted on a group of Polish teenage learners of English as a foreign language will be reported.

1.4. The study

1.4.1. Aims

The primary aim of the study was to investigate whether contact with English through out-of-class CMC had an impact on Polish teenage EFL learners' competence in English, particularly their grammatical and lexical competence. Moreover, the intensity of Internet use was explored as a factor influencing the learners' familiarity with typical CMC forms and their comprehension, and the readiness to evaluate them as grammatically correct. In order to address these issues, however, another aim was to find out whether the study participants encountered English through CMC, for what purposes and to what extent.

1.4.2. Participants

The participants in this study were 209 Polish high school learners, out of whom there were 127 girls and 82 boys. The average age of the population was 17.1, with their ages ranging from 15 to 18. The average length of learning English at school was 7.8 years, and their level of proficiency was estimated by their teachers as pre-intermediate to intermediate.

Since, for the purpose of analyzing some of the study results, the intensity of Internet use was considered an important factor, the population was divided into two groups: Group A (heavy Internet users, who declared using the Internet for 2 or more hours a day, N=145), and Group B (moderate Internet users, who used the Internet up to 1.5 hours a day, N=64).

1.4.3. Method

The research tools employed in the study were a questionnaire and five tests. The questionnaire elicited demographic information about the participants as

well as data concerning their Internet-use habits, with a special focus on contact with English through out-of-class CMC. The five tests were:

- a comprehension test, in which the participants stated whether they could understand the meaning of ten chunks of language exemplifying highly informal CMC exchanges (max. 10 points),
- a grammaticality judgment test, in which the participants judged whether these chunks were 'correct English' (max. 10 points),
- a production preference test, in which the participants chose the form that they would prefer to use in a CMC situation out of a pair of a standard form and a non-standard one, typical of highly vernacular style of CMC (max. 5 points for the non-standard forms),
- a CMC abbreviations test, in which the participants decided if they recognized the meaning behind these ten abbreviations, with or without being able to provide the full forms (max. 10 points),
- a CMC abbreviations test, in which the participants provided full forms to ten typical CMC abbreviations (max. 10 points).

The samples of the CMC exchanges used in the study were taken from published articles on the language of CMC (Baron, 2008; McNeill, 2008; Tagliamonte and Denis, 2008).

1.4.4. Study findings

In this section, findings obtained through the questionnaire and through the tests will be presented under separate headings.

Questionnaire findings

According to the data, on average, the participants declared using the Internet for 2.6 hours daily on weekdays and 4.6 hours daily at weekends. Concerning the purposes for which they used the Internet, 96% of the participants said they surfed the Internet 'often' or 'very often' for school-related purposes, mainly looking for information for homework assignments, 97% of them used the Internet 'often' or 'very often' for entertainment-related purposes, and 93% reported a high frequency of Internet use for social purposes. The language of Internet use for these purposes was mainly Polish, but at the same time 35% of the participants admitted encountering English when searching the net for school-related purposes, 82% - for entertainment purposes and 61% - for social purposes.

Asked about their engagement in social networking sites, 87% of the participants declared using them 'often' or 'very often', the most frequently quoted networks being Facebook (92%), directly followed by the Polish networking site Nasza Klasa (89% declared using it). Ninety-one percent of the study participants admitted having contacts with English through social networking sites.

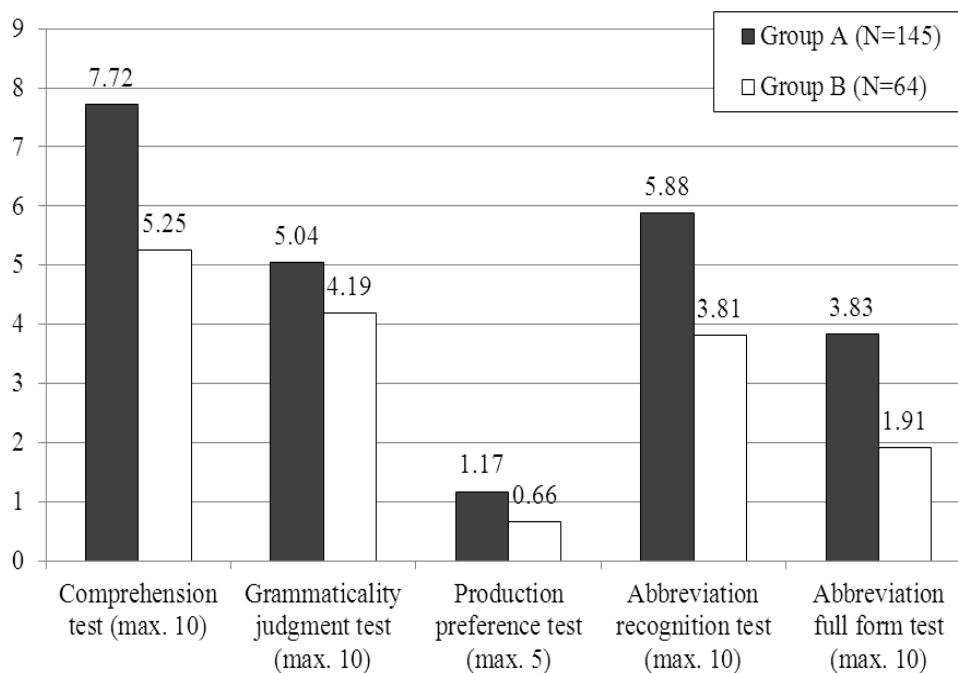
Eighty-eight percent of the study population agreed or strongly agreed with the statement that their English improves through engaging in different forms of CMC.

Test results

The results of the five tests (the tests were described in 1.4.3.) were computed and analyzed separately for each of the two groups distinguished on the basis of the intensity of their Internet use (the division into groups was explained in 1.4.2.). For each of them, descriptive statistics were calculated and an independent-samples t-test was conducted to establish statistical significance levels, which for this study were set at the level of .05. The results of all tests are presented in Figure 1.

In the comprehension test, the learners ticked the CMC chunks which, in their own opinion, they could comprehend. As seen in Figure 1, an independent-samples t-test indicated that scores on the participants' self-evaluated comprehension of the CMC samples were significantly higher for the group of heavy Internet users ($M = 7.72$, $SD = 2.52$) than for the group of moderate Internet users ($M = 5.25$, $SD = 1.75$), $t(209) = 7.10$, $p < .001$. In the following test, the learners evaluated the linguistic correctness of the same CMC chunks and ticked the ones which were, according to them, examples of 'correct English'. There was a significant difference in the levels of judging the examples as correct between Group A, the group of heavy Internet users ($M = 5.04$, $SD = 2.22$) and Group B, moderate Internet users ($M = 4.19$, $SD = 1.93$), $t(209) = 2.659$, $p = .008$.

Figure 1. Mean test scores of the five tests for Group A and Group B.



In the production preference test, again, the differences between the choices made by particular groups appeared to be statistically significant, although both groups expressed more preference for using standard forms in CMC than for using nonstandard forms. Figure 1 illustrates mean values indicating both groups' preferences for using nonstandard forms, typical of CMC. Preference levels for using these forms were significantly higher in Group A, heavy Internet users ($M = 1.17$, $SD = 1.43$) than for the group of moderate Internet users ($M = .66$, $SD = .98$), $t(209) = 2.63$, $p = .009$.

The final two tests concerned the participants' familiarity with the abbreviations used in CMC. In the abbreviations recognition test, they ticked the ones which they had come across in CMC and they recognized the meaning which they denoted. A statistically significant difference was recorded between Group A ($M = 5.88$, $SD = 1.86$) and Group B ($M = 3.81$, $SD = 1.77$), $t(209) = 7.50$, $p < .001$. Finally, in the last test, the participants were required to provide the full forms of these abbreviations. Again, there was a significant difference between Group A ($M = 3.83$, $SD = 1.45$) and Group B ($M = 1.91$, $SD = 1.99$), $t(209) = 7.83$, $p < .001$. The group of heavy Internet users were able to provide significantly more full forms to the abbreviations than the group of moderate Internet users.

1.4.5. Discussion

The questionnaire findings clearly indicate that the studied population of Polish high school learners used the Internet intensively for a variety of reasons. It may be assumed that the digital media were a widely used source of information, entertainment and a platform for social interactions for these teenagers. What is especially worth highlighting here is the high proportion of contacts with English that the study population reported to have through various uses of the Internet, including different forms of CMC, such as social networking sites. In a situation of studying English as a foreign language in Poland, where occasions for face-to-face interactions with other users of English (native-speakers or non-native speakers) are not readily available, CMC may, at least to a certain extent, fill this gap and give EFL learners' opportunities to engage in L2 interactions. This point has been emphasized by other researchers as well (e.g. van Compernelle & Willimas, 2009; Kern, 2006; Blake, 2008).

It may be inferred, then, that this frequent and intensive exposure to English input, which is authentic, situationally relevant and meaningful to CMC users, might affect L2 learners' developing competence in the target language. In fact, a very high proportion of the participants in this study admitted that, according to their own estimation, their English was improving as a result of Internet use.

The tests employed in this study attempted to assess fragmentary elements of the learners' competence; and although by no means can the results be interpreted as generative and indicating foreign language acquisition

processes, their consistency over the five tests allow to formulate a few tentative conclusions about this particular group of study participants. The high levels of self-evaluated comprehension of the CMC samples may reveal the participants' acquaintance with this kind of register. Having encountered similar forms many times through CMC, they were better prepared to process and understand this kind of specific language forms. The fact that the intensity of Internet use appeared to be a significant factor in accounting for the difference in comprehension levels seems to reinforce the correlation between experience in using digital media and the abilities to comprehend forms which may be specific to such contexts. Moreover, the group which had more experience in using the Internet was more ready to accept these forms as correct English, which may be interpreted as their openness to a variety of forms, including non-standard ones, as a feature of specific language use. Learners who have more extensive exposure to authentic English may be better prepared to interpret input in terms of its social and contextual appropriateness. Crystal (2006) refers to Internet language, 'Netspeak', as exemplifying natural processes of language change and, in fact, enriching language. He says: 'the arrival of new, informal, even bizarre forms of language extends the range of our sensitivity to language contrasts' (Crystal, 2006: 275-276).

The production preference tests showed, however, that although the learners evaluated at least some of the forms as correct English, they were considerably less eager to use such forms in language production. The number of the nonstandard forms marked by the learners as ones they would use was low in the case of both groups, although significantly higher for the heavy Internet users. This finding shows that, on the one hand, the learners were aware of the fact that they lacked the competence to produce such natural, authentic, culture-embedded forms; on the other hand, intensity of Internet use appeared to be a factor encouraging the readiness to use of such forms in CMC contexts.

Finally, the ability to recognize the CMC abbreviations and to provide their full forms may be seen as a sign of enhanced linguistic sensitivity displayed by the learners, especially heavy Internet users, to novel language forms which they encountered in input; moreover, it may indicate the acquisition of these forms, which are probably confined to CMC contexts. Although research indicates that abbreviations and acronyms constitute only a small proportion of CMC language use (Baron, 2008, 59-60), they were included in this study as particularly conspicuous for L2 learners. Although the study findings indicate that the participants acquired these forms through CMC, other lexical and grammatical items, which are less salient and less marked, may not be acquired that easily. That was, however, beyond the scope of the present research.

1.5. Conclusions

The present study provided some insights into the relevance of CMC as language input for Polish teenage learners of English as a foreign language. In

light of the research findings, it may be concluded that CMC serves as relevant input of language forms; moreover, it provides valuable opportunities for L2 learners to engage in interactions or have contacts with English at least through exposure to authentic, meaning-oriented, often personally significant input. This, in turn, may contribute to learners' enhanced sensitivity to language forms and the awareness of the need to adjust them to contextual constraints of a communicative situation.

The findings of the study, because of its limited scope, cannot serve as a basis for formulating general conclusions about the relevance of CMC for L2 learners' competence. More studies, larger in scope, employing varied instrumentation, are needed in order to further explore the engrossing link between CMC and second language acquisition.

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