Comparative content analysis of the Netspeak elements among pupils and students in asynchronous discussion "professor-student"

Karmela Aleksić-Maslać, Franjo Borović, and Zdravka Biočina

Abstract— In this paper asynchronous online discussions of high school pupils and students were compared. The methodological approach taken was to measure the amount of Netspeak elements in the discussion professor-student on LMS Moodle. Netspeak is a new language form that generates itself from a spoken language. It is developing very rapidly and through use of new technologies (Skype, Facebook, Viber, Whatsapp, etc.) becoming more and more the global language. Its main feature is the extensive use of abbreviations, emoticons, and punctuations. In order to conduct the analysis and measure amount of Netspeak elements in mentioned discussions, ten Netspeak standards have been used that are divided in four following groups: standard related to information and communication technology (ICT), Grammar and syntax (G), Prosody (P) and Others (O). A comparison of these two groups of participants in asynchronous online discussions revealed some similarities and differences among them. As expected, the amount of Netspeak elements was greater among high school pupils than among students. Both students and pupils used most frequently ICT standards and the least frequently prosody standards. The results also indicate that students are more adept to formal online communication than pupils and that women use more emoticons than man in asynchronous online discussions.

Keywords—Netspeak in high school, Netspeak in college, Asynchronous online discussion, Netspeak standards

I. INTRODUCTION

ASYNCHRONOUS online discussions [1]-[5] are a very important part of every e-learning system. [6, 7] They allow students to be in permanent communication with one another and with their professors 24/7 permitting to choose the right moments to involve themselves into the discussion that suits them the most. Modern Learning Management Systems (LMS) such as Moodle, Blackboard, etc. [8, 9] can monitor the rate of the activities in different modules, including the active

or passive participation in the online discussions, and in that way identifying how many times have the participants taken part in the discussion and how many posts have they read, although they haven't been active. [10]

In the paper "Important Role of Asynchronous Discussion in E-learning System", the authors define the open and closed discussion. The open discussions are meant for the informal communication between professors and students (P-S), students and professors (S-P), and communication among students (S-S). The closed discussions are related to the lecture content and depend on whether the moderator is a professor or a student; the discussion could be professor-student (P-S) or student-student (S-S). [11]

In this paper the amount of Netspeak elements [12] in the discussion professor-student among high school pupils and students is measured and analyzed.

II. NETSPEAK

The rapid development of new technologies like Skype, Facebook, SMS, and mobile applications such as Viber, WhatsApp, etc. in various ways affect and change the language in order to develop a new language form - Netspeak. [13, 14] Netspeak, is also known as Internet slang, Cyberspeak, Cyberslang, Chatspeak, etc. It generates itself from a spoken language, develops rapidly and becomes a common tool of communication leading its way toward the global language. Its main feature is the extensive use of abbreviations, emoticons, and punctuations. [15, 16] Netspeak enriches our everyday communication and in the same time it shows how people creatively change their language so it can fit better to the new medium. [15] The research into Netspeak elements in student communication has highlighted that the amount of Netspeak elements is greatly dependent upon context and participants in the communication. When they are required to write in a formal situation, Netspeak is barely used or used only minimally. Also, students use more Netspeak elements when they are interacting among their friends, than among adults and professors. [13, 17]

A. Standards for measuring the quantity of Netspeak

In paper "Standards for measuring the Netspeak quantity in on-line text content" the authors developed ten standards for

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measuring the Netspeak quantity [12]

1) ICT standards (I1, I2, I3) – related to the use of English words in the Croatian language, the use of abbreviations, acronyms and emoticons.

2) Grammar and syntax (G1, G2, G3) – related to the extended use of lower cases through the whole text regardless the punctuation and proper names, the omission of diacritics and the omission of space after punctuation.

3) Prosody standards (P1, P2, P3) – the nonstandard use of punctuation, the use of upper cases when lower cases are needed and the prolongation of the graphemes.

4) Other – all other elements that can appear in the discussions and within other communication channels, such as social media.

Table 1 presents the ten standards and their description. It is important to emphasize that the value of each standard is 10%.

Table 1. Netspeak elements quantity measuring standards [12]

STANDARD	DESCRIPTION	P
I1 English words	New technologies development is based on English language so it happens that Croatian language is subjected to overwhelming English words.	10
I2 Acronyms and abbreviations	Acronyms and abbreviations are composed of the initial letters of each member of the expression in them. Abbreviations are mixed; there are regular and occasional ones. There are common abbreviations that are short parts of words or sets of words, and read as if words are spelled correctly. Other abbreviations are formed by merging the initial letter or letters of multi-member group called names and is usually read as written.	10
I3 Emoticon	Emoticons are signs, symbols. They are not just colon and parentheses; it is a sign of a good mood, and sometimes takes other meanings depending on the context in which it is used. Symbols are signs in which the relationship between signifiers are already learned.	10
G1 Lower case graphemes	Contrary to the grammar rules, the use of lower case graphemes where it should be used upper case graphemes.	10
G2 Diacritics special signs	Part of the grapheme that change the sound of the grapheme. Those signs are omitted and often recorded by the standard rules of English language.	10
G3 Space	The omission of space where needed, after punctuation.	10
P1 Punctuation	Punctuation is used in a nonstandard way in order to compensate the auditive channel within the discussion.	10
P2 Uppercase graphemes	In written Croatian language there is standard use of uppercase in three particular situations. First is with the proper names, the second as the first letter in a sentence and finally in order to express politeness. Though, there are some exceptions. Uppercase within the whole word, sentence or text can be used for	10
	esthetic, advertising or propaganda reasons. It is used in order to emphasize the specific word and to plan and to add the prosodic elements to the written word.	
P3 Prolongation of the graphemes	In written Croatian language there are 30 sounds each represented by single grapheme (except three sounds being represented by double graphemes *dž, lj* and *nj*). There's no such a thing as geminate (a double consonant such as *mm* and a word *communication*). It is used in order to add prosodic elements to written words. Prosody gives rhythm and melody to a word. It comprehends acoustic parameters such as accent, intonation, and melody.	10
O – Other	Use of tense considered to be obsolete – aorist. As far as the past tenses are concerned, the most frequent and the most dominant tense in contemporary Croatian is the Croatian *perfect - Vidjela sam te* (PERFECT – *to see*). Shortened form, *aorist* form would be *Vidjeh te.* (AORIST – *to see*) etc.	10

Previous research conducted by Aleksic-Maslac & etc. show that students use more Netspeak elements at the beginning than at the end of their college education and that the amount of Netspeak elements is bigger in student-student than in professor-student discussion. [13] Their comparative content analysis of Netspeak elements was within closed asynchronous online discussion between professor and students in the same generation of students in the first and in the seventh semester. They also analyzed Netspeak elements of the same groups on the social network Facebook. [18] Their results showed that the Netspeak elements are most frequently used in informal discussion on Facebook, and somewhat less frequently in discussion on first and fourth year of college. There was a significant positive correlation that showed that students who used some of the Netspeak standards in the first semester will use them even more in the seventh semester. [19, 20] Previous studies also showed that the students will use more frequently some of the standards, like emoticons, if the professors used them in the discussions. [21]

III. RESEARCH AND RESULTS

In the remaining part of the paper the amount of Netspeak elements in the asynchronous online discussions of high school pupils and students on LMS Moodle is analyzed. Participants were 57 pupils that were involved in eight discussions linked to their computer courses in high school, and 30 students who were involved in eight discussions at the course Information and Communication Technologies (ICT) at Zagreb School of Economics and Management. [22] As expected, the amount of Netspeak elements is greater among pupils (31.7%) than among students (22.2%), as shown in Figure 1.
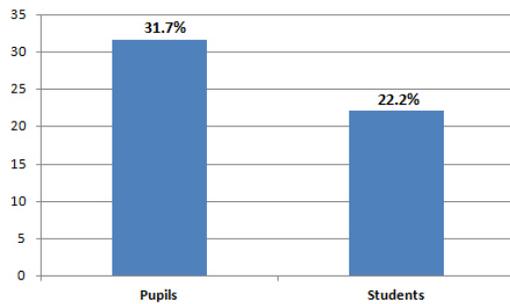
Fig. 1. Amount of Netspeak elements in discussion of pupils and students

What stands out in the Table 2, which shows the distribution of the standards throughout the groups of pupils and students, is that pupils have bigger values for all groups of standards.

Table 2. Distribution of the standards throughout the groups

Standards	Pupils	Students
I1	94	95
I2	83	52
I3	3	16
I	**60**	**54.3**
G1	13	0
G2	13	13
G3	13	15
G	**13**	**9.3**
P1	10	10
P2	4	0
P3	1	0
P	**5**	**3.3**
O	**85**	**21**

From standards for measuring Netspeak elements, pupils use first group of standards - ICT (56.4%) the most, Other is second with 26.7%, Grammar and syntax third with 12.2%, and they use Prosody with 4.7% the least, as illustrated below in Figure 2.
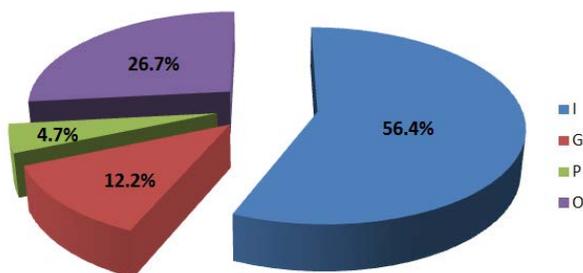

Fig. 2. Pupils – Distribution of the standards throughout the groups

The results are similar for students too, apart from differences in standard groups Other and ICT. Students have smaller frequency of standard group Other (9.5%), and more frequent standards ICT (73.4%), Grammar and syntax (12.6%)

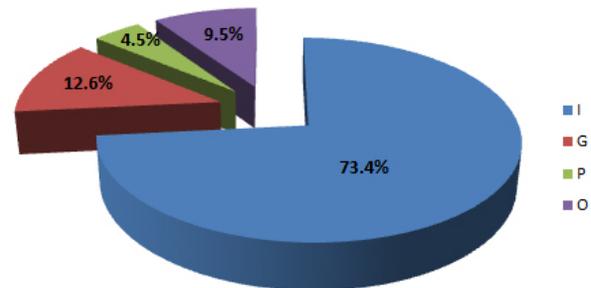are used more frequently then standards Other, as well as group Prosody (4.5%) (Figure 3).

Fig. 3. Students – Distribution of the standards throughout the groups

A. First group of Netspeak standards – ICT

It can be seen from Figure 4 that the average use of ICT standards among pupils is 60% and among students 54.3%. What is seen from the data for ICT standards (Table 2) is that 94% of pupils and 95% of students use expressions in English (standard I1). This is expected because discussions from courses that are closely related to new technologies were analyzed, so English terms are often used. Acronyms and abbreviations (standard I2) are used by 83% pupils and 52% students. Surprisingly, only a minority of pupils (3%) and students (16%) use emoticons (standard I3), although in both cases the professor, who started the discussion, used at least one emoticon.
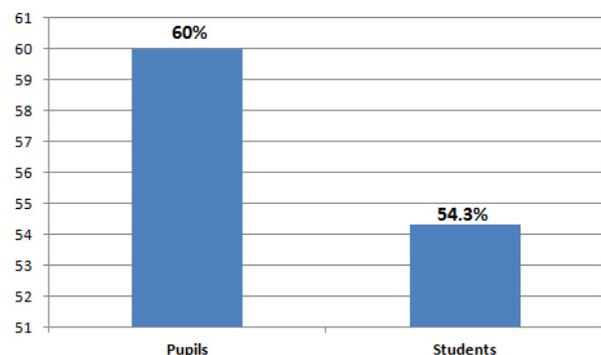

Fig. 4. Distribution of the ICT standard

B. Second group of Netspeak standards - Grammar and syntax

Figure 5 shows the results for the second group of Netspeak standards, Grammar and syntax. Generally, spelling in informal discussions on social networks is less important and therefore everything is usually written in a lowercase. The results obtained from formal discussion, show different tendencies. Only 13% of pupils used lower case graphemes at the beginning of the sentence (standard G1), and no student

began the sentence with a lowercase grapheme. These results suggest that students take more account of the spelling in online communication than it is believed. Furthermore, in both groups 13% of participants omit diacritics (standard G2).

In 2010, 48% of students, whose Netspeak elements were measured in the same type of discussion and on the same course, omitted diacritics signs. [13] Comparing this result with previous studies of measuring Netspeak elements, it can be seen that numbers in this research are significantly lower. The results from this study also show that 13% pupils and even more students (15%) omitted the space after punctuation (standard G3).
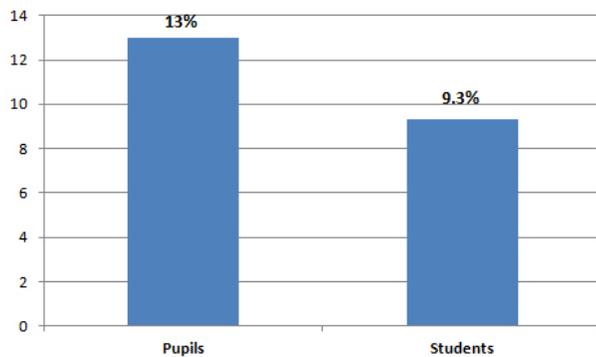

Fig. 5. Distribution of the standard - Grammar and syntax

C. Third group of Netspeak standards – Prosody

Figure 6 presents the amount of Netspeak elements in group Prosody. It is apparent from this figure that only 5% of pupils and 3.3% of students use elements of Prosody in formal discussion. The average usage of standard P1 (sequences like …, !!!, ????) is 10% for both groups, while uppercase graphemes (standard P2) are not used by students, only pupils (4%). The same is with standard P3 (prolongation of the graphemes), which is used only by 1% of the students. This was expected since standards from this group are more characteristic for informal discussions and social networks.
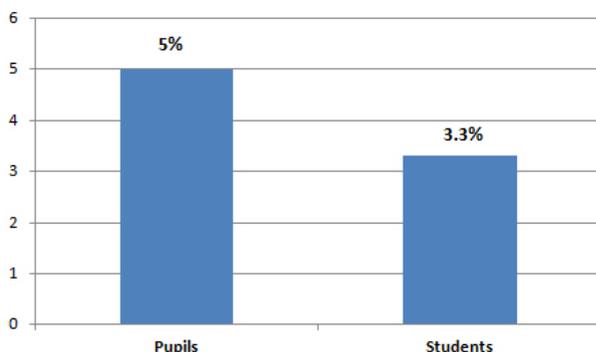

Fig. 6. Distribution of the standard - Prosody

D. Fourth group of Netspeak standards – Other

The difference between the two groups of participants was the most significant for this Netspeak standard. 85% of pupils

made spelling errors that do not belong to the group Grammar and syntax, on the other hand, this number is significantly lower for students (21%) and it is connected with their use of aorist.

E. Greetings and regards

Considering the formality of discussion, the professors have addressed the pupils or students in all the beginnings of the posts and ended them all with regards. Interestingly, no high school pupil addressed or greeted professors and colleagues at the beginning of the post while 71% of students greeted their professors and colleagues (Figure 7).
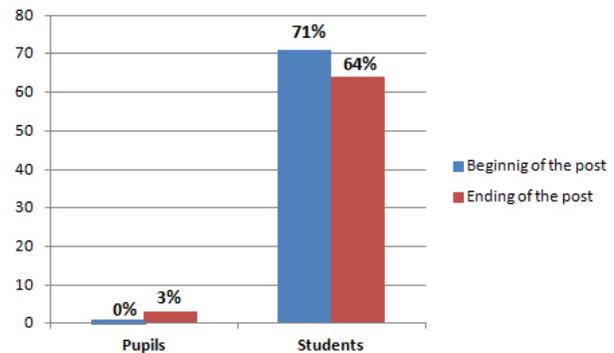

Fig. 7. Beginning and ending of the post

The informal style in discussions is present in online communication of pupils even at the end of the post: only 3% of the pupils ended up their posts with a regard, usually with the emoticon "smiley" or with the acronym "KR". Results for students differ. 64% of students greeted at the end of the discussion, they used "Kind regards" (56.4%) or acronym "KR" (41%) the most, and only 2.6% used emoticon "smiley". Taken together, these results suggest that high school pupils are less familiar with the rules of formal communication and that students are more adept for communication in academic world. It is interesting, that a comparison of the two groups revealed that students used more emoticons than pupils. The reason could be that there were significantly more women among students (46.4%) than among pupils (7%).

IV. CONCLUSION

Comparative content analysis of Netspeak elements with asynchronous online discussion between professor and students in high school and college showed that Netspeak is broadly used by students and pupils. As expected, results show that pupils had the greater amount of Netspeak elements in their posts than students. From ten standards for measuring Netspeak elements, pupils used the first group of standards - ICT (mainly expressions in English) the most, and the group of standards Prosody the least. Both are explained by the type of the courses on which discussions where held and the formality of the discussions. Generally, spelling is less important in informal discussions on social networks and therefore everything is usually written in a lowercase. But the results obtained from this study, show students and pupils in formal

discussion take more account of the spelling. The difference between the two groups of participants was the most significant for the group of standards Other. Surprisingly, only a minority of pupils and students use emoticons, although in both cases the professor, who started the discussion, used at least one emoticon. It is also interesting, that students (16%) used more emoticons than pupils (3%). The reason could be that there were significantly more women among students (46.4%) than among pupils (7%). Beginnings and endings of the posts in discussions were also analyzed. Considering the formality of discussion, the professors have addressed the pupils or students in all the posts and ended them all with regards, most of students also did it, and, no high school pupil greeted professors nor colleagues at the beginning or at the ending of the post. These results show that students are more adept for communication in the academic world.

Further research will take into consideration differences among male and female use of Netspeak elements and it is also planned to expand analysis to other languages. This could highlight the dependence of the Netspeak on the native language of the user.

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